UNIVERSIDAD DE JAÉN

FACULTAD DE HUMANIDADES Y CIENCIAS DE LA EDUCACIÓN
DEPARTAMENTO DE FILOLOGÍA INGLESA

TESIS DOCTORAL

ASPECTS OF CREATIVITY IN THE TEACHING AND LEARNING OF ENGLISH AS A FOREIGN LANGUAGE

PRESENTADA POR:
ELIZABETH ADAMS

DIRIGIDA POR:
DR. D. CARMELO MEDINA

JAÉN, 17 DE DICIEMBRE DE 2001

ISBN 84-8439-300-3

Nombre y apellidos del autor

ELIZABETH ADAMS

Título de la Tesis Doctoral

ASPECTS OF CREATIVITY IN THE TEACHING AND LEARNING OF ENGLISH AS A FOREIGN LANGUAGE

I.S.B.N.

84-8439-300-3

Fecha de Lectura

17 DE DICIEMBRE DE 2001

Centro y Departamento en que fue realizada la lectura

FACULTAD DE HUMANIDADES Y CIENCIAS DE LA EDUCACIÓN

Departamento de Filología Inglesa

Composición del Tribunal/Dirección de la Tesis

Dirección de la Tesis	Dr. D. Carmelo Medina
Presidente/a del Tribunal	Dr. D. Fernando Serrano
Vocales	Dr. D. Luis Quereda
	Dr. D. Pablo Dominguez
	Dr. D. Antonio Bueno
Secretario/a	Dr. D. Luciano García

Calificación Obtenida

SOBRESALIENTE CUM LAUDE POR UNANIMIDAD

UNIVERSIDAD DE JAÉN

tesis doctoral

Resumen

En esta tesis analizamos el concepto de la creatividad aplicada al área de la enseñanza y aprendizaje del inglés como lengua extranjera. Para mucha gente el concepto de la creatividad es algo no normalmente asociado con la vida diaria, sino más bien con la creatividad de los genios, conocida como la creatividad "Histórica", que significa la creación de algo nunca hecho antes. Por contra la creatividad más asequible, la de la creatividad "psicológica" o creatividad con una "c" en minúsculas, es donde una persona crea, ella misma, algo nuevo para sí misma.

Aunque nos referimos a la creatividad histórica para descubrir los procesos comunes y sus características, el centro de nuestro estudio es examinar la creatividad psicológica dentro del área de la enseñanza y aprendizaje de EFL ("English as a Foreign Language" o el Inglés como Lengua Extranjera). Para centrar mejor nuestra línea de investigación, tomamos el concepto de "enseñar como arte" y analizamos algunas posibles líneas paralelas entre los procesos de enseñanza y de aprendizaje y, a la vez, aquellas áreas que son más comúnmente reconocidas como creativas, por ejemplo, en el trabajo de arte creativo o en la escritura creativa.

Una idea clave en este estudio es la naturaleza "en capas envolventes" de los procesos creativos y sugerimos esto como la diferencia entre las aproximaciones tradicionales, o sea convencionales, en la enseñanza y este otro enfoque más innovador, fluido y flexible. Continuamos nuestro estudio con la discusión en otras áreas, no todas ellas asociadas directamente con la enseñanza y el aprendizaje, como por ejemplo: Sinestesia, Uso de imágenes personales, Planos mentales, Teoría de inteligencia múltiple, Programación neuro-lingüística y la Música. Las cuales, proponemos, tengan un papel importante en el desarrollo de aproximaciones creativas al aprendizaje y enseñanza y que ayuden a favorecer un ambiente en el cual pueden surgir unos enfoques más innovadores e imaginativos; y, donde los profesores y alumnos puedan a la vez crecer y evolucionar más allá de los contenidos de la asignatura.

Por último, analizamos las percepciones de distintos grupos de estudiantes españoles involucrados en cursos universitarios para futuros profesores de EFL, para así entender lo que significa ser un profesor creativo. Observamos las implicaciones prácticas salidas de esta idea para hacer que la enseñanza sea más creativa y flexible. Reflexionamos sobre la idea de si cualquier profesor puede ser un profesor creativo, si lo desea, teniendo presentes las características de la creatividad que se discutieron previamente. Sugerimos algunas formas en las cuales la creatividad con una "c" minúscula puedan, quizá, ser incorporadas en la práctica educativa.

Abstract

Aspects of Creativity in the Teaching and Learning of English as a Foreign Language

Summary

This thesis explores the concept of creativity applied to the area of the teaching and learning of English as a Foreign Language.For many people the concept of creativity is one far removed from the daily round and has tended to be associated with the "H" or historical type of creativity, where something is created that no one else has ever achieved before. By contrast the more accessible type of creativity, "P" or psychological creativity, is where an individual creates something which is novel to them personally. Although we draw on historical creativity to ascertain common processes and characteristics the main focus of our study is to examine psychological creativity, or creativity with a small "c" within the field of teaching and learning of EFL. To illuminate our line of research we take the concept of "teaching as an art" and explore some possible parallels between the processes of teaching and learning and those areas more commonly recognised as creative, for example in creative art work or writing.

A key idea here is the "unfolding" nature of creative processes and we suggest that this is what differentiates traditional and conventional approaches to teaching from more innovative, fluid and flexible approaches.

We go on to discuss some areas, not all of them necessarily directly associated with teaching and learning, for example: Synesthesia, Imagery, Mindmapping, Multiple intelligence theory, Neuro Linguistic Programming and Music, but which, we propose, have important bearing on the development of creative approaches to teaching and learning and which help to nurture an environment where more innovative and imaginative approaches can flourish, and where teachers and learners alike can grow and evolve beyond the limits of the subject matter.

Finally we analyse the perceptions of several cohorts of Spanish students involved in University pre-service teacher training courses for future teachers of English as a Foreign Language, as to what constitutes creative teaching. We look at the practical implications involved in making teaching more creative and flexible. We reflect on whether anyone can become a creative teacher if they so wish and, bearing in mind the characteristics of creativity discussed earlier, we suggest some ways in which creativity with a small "c" might be incorporated into teaching practices.

UNIVERSIDAD DE JAÉN

ASPECTS OF CREATIVITY IN THE TEACHING AND LEARNING OF ENGLISH AS A FOREIGN LANGUAGE

ELIZABETH ADAMS

tesis doctoral

″Nan-Nan, what you finding?″
Matts. 1996

Index

INTRODUCTION 15
0.1. General Objetives 17
0.2. Hypthesis 17
0.3. Structure of the investigation 18
0.4. Constraints and limitations 19

I. STATE OF THE ART / CONTEXTUALISATION 21
1.1. What is creativity? 22
1.2. Where does creative inspiration come from? 28
1.3. Scientific underpinning of creative processes and the human brain 37
1.4. Social aspect of creativity 41
1.5. Why do we need to concern ourselves with processes like creativity? .. 42

II. TEACHING AS AN ART 47
Introduction 48
1. A theoretical framework for creativity 48
1.1. Preliminary assumptions and observations 49
1.2. A componential framework of creativity 50
1.2.1. Domain relevant skills 52
1.2.2. Creativity-relevant skills 53
1.2.3. Task motivation 53
1.2.4. Cognitive style 54
1.2.5. Knowledge of heuristics 56
1.2.6. Personality Traits 57
1.2.7. Intrinsic Motivation 59

1.3. How might this componential framework of creativity be applied to creative teaching? 61
1.3.1. Feedback and interaction between components 67
1.3.2. Summary 68
2. Creativity, motivation and 'flow' states 71
2.1. Relevance of flow type experiences for creativity in teaching 79
2.2. Summary of implications for creative teaching 82
3. Components of creativity 83
3.1. Gardners "Four Principal Components in the Study of Creativity" ... 86
3.2. Areas of possible relevance for this study. 87
3.2.1. Role of individuals and environments in the future creative development of young people 87
3.2.2. Pressures and constraints on teachers 89
3.2.3. Being open to change and evolution 90
3.2.4. Drawing the threads together-implications for creative teaching 90
4. Other views of creativity 92
4.1. The T.O.T.E.model 93
4.2. Implications 97
4.2.1. Feedback 97
4.3. Creativity through interaction with others: implications for creative teaching 98
5. The creative principles of Leonardo Da Vinci 99
5.1. The seven principles 100
5.2. Development of the seven principles 101
5.2.1. Curiositá 101
5.2.1.1. Curiosity and change 103
5.2.1.2. Implications of the Curiosita concept for creativity and creative teaching 103
5.2.2. Dimostrazione 104
5.2.2.1. Experiential learning in different teaching and learning situations: three main categories 104
5.2.3. Sensazione 190
5.2.3.1. Implications of the sensazione concept for creativity and creative teaching 110

5.2.4. Sfumato 114
5.2.4.1. Implications of the sfumato concept for creativity and creative teaching 115
5.2.5. Arte/Scienza 118
5.2.5.1. Implications of the arte / scienza concept for creativity and creative teaching 120
5.2.6. Corporalitá 124
5.2.6.1. Implications of the corporalitá concept for creativity and creative teaching 125
5.2.7. Connessione 127
5.2.7.1. Implications of the connessione concept for creativity and creative teaching 132
5.3. Observations 132
6. Teaching as an art 133
6.1. Introduction 133
6.2. Art and science: a dichotomy? 133
6.2.1. Shifts in scientific paradigms 136
6.2.2. Art and science in the teaching of foreign languages 138
6.3. A framework for creative teaching 142
6.3.1. Interdisciplinary nature of creativity 142
6.3.1.1. Creativity in Teaching 143
6.3.1.2. Characteristics of creative teaching 144
6.4. The unfolding quality of the process 144
6.4.1. The unfolding process for artists and teachers 145
6.4.2. Interaction and the internal dialogue 145
6.4.3. Teaching and learning feedback 146
6.5. Constraints and flexibility 147
6.5.1. Constraints and flexibility in teaching 149
6.6. Personal skills and attributes 150
6.6.1. Artist 151
6.6.2. Teacher 151
6.6.3. Experience and beliefs 155
6.7. End Product 156
6.8. Symbiotic nature of creative teaching 160

III.FACTORS AND AREAS BEARING ON CREATIVE TEACHING 165
Introduction 166
1. Synesthesia 166
1.1. Implications and applications of synaesthesia for creative Teaching 171
2. Creativity and Imagery 174
2.1. Role of imagery in cognition 175
2.2. Research into mental imagery 176
2.3. Use of imagery in memorising techniques 180
2.4. Biased focuses in classrooms 183
2.5. Images, imagery and imagination 185
2.6. Techniques which draw on imagination and personal imagery; guided visualisations 189
2.7. Relaxation and reduction of stress in learning situations. 191
2.8. Why relaxed states are important 193
2.9. Finding time for visualising activities 195
2.9.1. Teacher resistance and perceived difficulties in using guided visualisations. 196
2.9.2. Double Inductions 198
2.9.3. Image Streaming 199
2.9.4. Using imagery to generate positive and creative outcomes . 199
2.10. Implications for creative language teaching 201
3. Mindmapping and related concepts 201
3.1. Practical considerations in making mind maps 205
3.2. The visual element of mindmaps 206
3.3. Concept mapping 208
3.4. Constructivism 209
3.5. Principles of constructivism demonstrated through mapping 209
3.6. Personal and commercial designs for mindmapping 212
3.7. Implications of mind and concept mapping techniques for creative teaching and learning 213
3.8. Summary 216
4. Multiple intelligence theory 217
4.1. The "eight intelligences" 217
4.2. Observations 220

4.2.1. Examples of highly developed intelligences 221
4.2.2. Emotional intelligence 223
4.3. Summary: implications for creativity in teaching 226
5. Neuro Linguistic programming 227
5.1. Development of NLP 229
5.2. Principles of NLP 230
5.2.1. Rapport 230
5.2.2. Outcome 231
5.2.3. Sensory acuity 231
5.2.4. Flexibility 231
5.3. Implications of the principles for creative teaching. 231
5.3.1. Rapport 232
5.3.2. Outcomes 232
5.3.3. Sensory acuity 232
5.3.3.1. Sensory Representation systems 234
5.3.4. Flexibility 235
5.4. Presuppositions of NLP
5.4.1. Implications of these presuppositions for creative teaching and encouraging creativity in learners 236
5.5. Life levels 238
5.5.1. Implications of life levels for creative teaching 241
5.5.1.1. Environment 241
5.5.1.2. Behaviour 243
5.5.1.3. Capability 243
5.5.1.4. Beliefs and values 243
5.5.1.5. Identity 244
5.5.1.6. Spiritual 244
6. Consciousness levels and learning: creating the conditions for creative teaching and learning 245
6.1. The primary –secondary process continuum 247
6.1.2. Processes in dealing with incoming information 247
6.1.3. Subliminal perception 248
6.2. Mind states for optimal learning 249
6.3. Peripheral vision 250

6.4. Approaches to education which acknowledge the existence of preconscious learning and primary and secondary processes 251
6.4.1. Suggestopedia 251
6.4.1.1. Stages of suggestopedia 253
6.4.2. Other approaches to teaching which draw on primary and secondary processes 254
6.5. Implications and applications for creative teaching 255
6.5.1. Guided visualisations 256
6.5.2. Double inductions 256
6.5.3. Experiments with materials not explicitly dealt with in the classroom: Quotations and visual designs 257
6.5.3.1. Observations 258
6.6. Music and song in the foreign language classroom 259
6.7. The element of the unexpected 262
6.8. Summary 262

IV. CREATIVITY IN TEACHING 268
Introduction 269
1. Discussions on creativity 269
1.1. Awareness raising and students' responses 270
1.2. Study One 271
1.2.1. Findings 272
1.2.1.1. Being completely original 273
1.2.1.2. Importance of imagination 273
1.2.1.3. Personal fulfilment and satisfaction 274
1.2.2. Observations 275
1.3. Study Two 277
1.3.1. Procedure 277
1.3.2. Questions and findings 278
1.3.3. Comments and observations related to the students' responses to the questionnaire 286
1.3.3.1. Use of new, original or 'new to us' activities 289
1.3.3.2. Experiential learning 290
1.3.3.3. Repertoire of techniques, activities and teacher flexibility 291

1.3.3.4. Allowing different viewpoints and means of expression 293
1.3.3.5. Personal involvement and personalised teaching. 295
1.3.3.6. Planning 296
1.3.3.7. Humour 296
1.4. Summary 297
2. Lesson planning and creative teaching 298
2.1. Lesson plans contents and considerations 298
2.2. Who makes the plans? 300
2.3. Metaphors in lesson planning 301
2.3.1. Students' metaphors for good lessons 304
2.4. Summary 305
3. The role of feedback in creative teaching 306
3.1. Positive factors 306
3.2.Types of feedback 307
3.2.1. Feedback to ascertain students' progress 308
3.2.2. Awareness of factors influential in learning 309
3.2.3. Activities designed to elicit feedback 309
3.2.3.1. Questionnaires 310
3.2.3.2. Learning journals, logs and action logs. 311
3.2.3.3. Letter writing 314
3.2.3.4. Learner reflection sections in EFL course books 315
3.2.3.5. Speaking and listening to students 315
3.2.3.6. In class feedback activities 315
3.2.3.7. Dialogue and feedback on preservice teacher training courses 316
3.3 Summary 317
4. Static and dynamic teaching 318
4.1. "Stuck teaching" 319
4.1.1. Characteristics of "stuck teaching" 319
4.1.2. Seeking the opposite of "stuck teaching" – working towards dynamic and creative teaching processes 321
5. A workshop session on the use of imagery in the language classroom. . 326
5.1. Workshop participants 327
5.2. Workshop conditions 327

5.3. Stages of the workshop 327
5.3.1. Stage one: opening activity 327
5.3.2. Stage two: guided visualisation 328
5.3.3. Stage three: supporting information 329
5.3.4. Stage four: poetry reading 330
5.3.5. Stage five: developing awareness of sensory imagery modes 331
5.3.6. Stage six 333
5.3.7. Stage seven 334
5.3.8. Participants responses to the activities 334
5.4. Guided visualisation feedback – first workshop session 334
5.5. Guided visualisation feedback – second workshop session 338
5.5.1. Comments and observations on the feedback 341
5.6. Feedback generated from listening to the poem 342
5.6.1. Examples of participants' feedback from the poem -first session 343
5.6.2. Examples of participants' feedback from the poem – second session 345
5.7. Comments and observations on feedback from the poem reading 346
5.7.1. Some general comments and observations arising from the imagery workshop 347
6. Observations on teaching short intensive courses to adult beginners ... 349
6.1. Considerations in planning the course 350
6.1.1. Usefulness of course books 350
6.1.2. Learners' self esteem 352
6.1.3. Finding balance between input and consolidation 353
6.1.4. Classroom environment 353
6.1.5. Accelerated learning 353
6.1.6. Identification with the "new" language 354
6.1.7. Not prejudging students 354
6.1.8. Balance between course structure and flexibility 355
6.1.9. Ways of working towards positive and creative outcomes 356
6.1.10. Other elements implicit for creative teaching 357
6.1.10.1. Use of music 358

6.1.10.2. Rest periods and alternating pace of activities 359
6.1.10.3. Strategies and techniques for ongoing study 360
6.1.10.4. Students have lives out of the classroom 361
6.1.10.5. Building in success 361
6.1.10.6. Ending the day on a high note 362
6.2. Reflections: creative teaching and intensive courses 362
6.2.1. Positive aspects of intensive courses 363
7. Can anyone become a creative teacher? 364
7.1. Childhood creativity 366
7.2. Curiosity and interest 367
7.2.1. Curiosity in teaching and learning 368
7.3. Cultivating "flow" states 369
7.3.1. Concentration of attention 370
7.3.2. Flow states in educational contexts 371
7.3.3. Control and balance 372
7.3.4. Implications of flow states for teaching 373
7.4. Habits of strength 375
7.5. Applications to creative teaching 376
7.5.1. Recognising optimum times 376
7.5.2. Time for reflection and relaxation 377
7.5.3. Creative space 377
7.5.4. Building more of what one likes 378
7.5.5. Internal traits 379
7.6. Ways of breaking habitual thought patterns 380
7.6.1. Accessing other mental states 380
7.6.2. Changing perceptual position 380
7.6.3. Developing polar opposites 381
7.6.4. Applications for creative teaching 381
7.7. Facilitating shifts from openness to closure 382
7.8. Complexity 385
7.9. Breaking the rules & divergent thinking 386
7.10. Summary 387

V. CONCLUSIONS 390
1. Contextualisation 391

2. Creativity and problem solving 391
3. Main themes explored 393
3.1. Creating the conditions for creative teaching 393
3.2. Teaching as an art 394
3.3. Teaching and learning as interactive processes: implications for creative teaching 395
3.4. Unfolding processes and the role of feedback in creative teaching 398
3.5. Accessing right brain and less conscious types of mental processing 399
3.6. Factors affecting learning and personal development which can open or close pathways to creativity. 402
3.7. Orientation of the classroom element of the investigation 402
3.8. Role of creativity in educating for change 405

VI. BIBLIOGRAPHY 408

APPENDICES 428
Introduction 429
1."Questions on visualising and other allied faculties": Galton's "Breakfast Table Questionnaire" 432
2. Lawlor's personal imagery questionnaire. 436
3. The VAK Test 440
4. Visualisation and imaging exercises 443
5. Guided Visualisations 448
5.1. Waterfall of white light 451
5.2. Breathing colour 452
5.2.1. Student feedback on the activity 453
5.3. The Joy bubble 456
5.4. The cloud 457
5.5. The Journey 458
5.6. Crossing senses 460
5.7. Time traveller 461
5.8. Cultural anthropology 462
6. A teacher's experience with a guided visualisation. 466

7. Double Inductions 469
8. Relaxing and centring exercises. Use of voice 478
9. Brightening up the classroom – mindmap 485
10. Creating a brain friendly classroom environment: A checklist for teachers 487
10.1. Music for brain friendly classrooms 493
10.2. Examples of student groupwork activities on short intensive courses 494
11. Creative Space 499
12. Selected techniques for promoting creative thinking 505
12.1. Suggestions for maximising personal creativity with applications for teaching and learning 514
12.2. Duncker's Experiment 516
13. Feedback activity generated by thinking about 'good learning' experiences 518
14. Feedback activity: Are you honest? 522
15. Feedback follow up to a group work awareness raising activity on a pre service teacher training course. 526
16. Generating creative outcomes in teaching: The 'Dids' and the 'Dos' ... 529
17. Examples of materials for pre-conscious processes in the classroom .. 534
17.1. Exploiting the interplay between primary and secondary processes in the teaching of grammar in foreign language classrooms 535
17.2. Quotations 540
17.3. Visual materials 546
17.3.1. Students' responses to Illustration 1 553
17.3.2. Students' responses to Figure 1 554
17.3.2. Ilustration 2 554
18. Mindmaps: some examples. 555
19. Visual presentations 561
19.1. The shape of a lesson 566
20. A good lesson is like; metaphors for lessons 570
21. "A neurobiological perspective on affect" 573
22. Creative activities for language classrooms 576
23. The Politics of Education: The traditional mode 600

24. In praise of music: a poem 603
25. Brain theories 606
26. Beginning and end of course questionnaires 610
27. Learning Styles and Strategies 614

Introduction

This study arises out of a long-standing personal interest in creativity. It is an area which has had its fascination for us both in our private life and professionally through teaching in a variety of different situations and contexts over many years. Professionally those experiences have been closely connected to areas of teaching which involve communication and personal expression. One of these areas is art and design, where people are helped, through a variety of different means, to develop and sharpen their ways of seeing, together with the acquisition of skills, techniques and knowledge of different media necessary to help them explore and give expression to what they see and feel. The other areas are in the teaching of English as a foreign language and in the training of future teachers of English, people in their turn hold who within their hands the power to influence the teaching and learning of languages and through languages the opening of doors to personal expression and creativity.

We see these areas as being closely linked both on superficial and deeper levels. They all involve communication, they all prepare people, albeit it in different ways, to find ways of being able to express themselves individually and creatively and to continue growing and evolving creatively as individuals. Language and art undoubtedly provide us with two of our principal means of communication, both with our own inner feelings and in enabling us to communicate with others. Yet very often teaching tends to overlook creativity. It gives people the facts and requires them to learn them in order to pass the examinations, but all too often it overlooks the processes of teaching and learning. Processes and ways of teaching with creative orientations can help learners to do more than just take in the information presented to them so that they can recall it when necessary, they can also draw on each and everyone's unique and personal responses and the natural curiosity and creativity which are inherent in everyone.

In the early years of education some attention is paid to creativity, but then all too soon its development and nourishment is set aside for more pressing matters. Some individuals, who for one reason or another seem more generously endowed with innate creative tendencies may manage to keep them alive and growing for themselves, whilst in those apparently less oriented towards creative exploration,

the flame burns less strongly and finally flickers and dies. All seems to conspire towards the conviction that creativity has little or nothing to do with what goes on in classrooms unless the subject is one that is directly associated with creativity, as for example, art and design, and even in those areas sometimes little attention is paid to the development of the learner's individuality and personal creativity.

We believe that creativity should form an integral part of any teaching and learning process, whatever the subject area. True learning means change and creativity is part of that process. It is vital for evolution and growth both on personal and global levels. The interconnections and similarities between our main areas of involvement, art and languages have led us almost inevitably to an exploration of the concept of teaching as an art.

1. GENERAL OBJECTIVES

In this study we explore the concept of teaching creatively, with the idea that creative teaching is a process in which teachers or better said, facilitators of learning are involved. We see the main objectives of creative teaching in the facilitation of learning and personal development, together with the ongoing personal development of the teacher through the interactive and unfolding qualities of teaching and learning. In the area of the teaching of foreign languages this means facilitating the learning of the language, in this case English, together with the personal development of the student. We believe this needs to go beyond learning the language and should include the personal development of each individual, which can be achieved by adopting a creative approach to teaching and learning.

Our aim is to explore the concept of creativity from various perspectives with the objective of drawing out areas of particular relevance to the area of creativity in teaching. This will include the type of creativity associated with highly creative people through to the type of creativity which we believe is within the reach of everyone, but which too often remains underdeveloped and untapped.

2. HYPOTHESIS

Our hypothesis is that a concept such as creativity, associated with the arts, music, and literature, rather than being reserved for those areas, or for those perceived as being especially gifted people, or seen as pertaining to certain subjects on educational

programmes, or more suitable for certain age groups, should permeate across the boundaries of subjects and areas and age groups. Creativity is integral to life and learning and can be incorporated into teaching for the enrichment both of teaching and learning. Creative teaching sees the teaching process as a facilitation of learning where a kind of interdependent or symbiotic process of growth and evolution can occur through the interaction and unfolding quality of events in the classroom. We shall show how teaching and learning can be made more creative through attitudes and procedures which apply to teaching and learning in general and with application to more specific areas, such as the teaching of foreign languages and in the preparation of future teachers of languages.

3. THE STRUCTURE OF THE INVESTIGATION

The structure of this study is as follows:

In Section I, we explore the concept of creativity in a broadly based way. We look at some key elements of creativity and creative processes as demonstrated in the lives of highly creative people in different times and different fields. From them can be drawn out threads and considerations which may be applied to optimising creativity in general and on more personal levels.

In Section II, we move towards the concept of teaching as an art through a series of specific explorations into creativity from which we will develop our own implications and applications relevant to creative teaching. For this we will draw on a variety of sources together with our own observations and personal experiences gleaned from teaching in a variety of different contexts and situations. More specifically we will work towards the development of a framework within which creative teaching and learning might take place. Finally in this section a metaphor for creative teaching is suggested through which we attempt to draw attention to parallels between the creative processes of generally accepted creative people, as experienced for example, by artists or writers and the process of creative teaching. To be creative, teaching processes need to maintain a kind of ongoing dialogue or unfolding quality which can be seen as paralleling the interactional dialogue between an artist and his unfolding or developing work, or the author and his writing, and this together with other threads will be explored in this section.

In Section III, we turn our attention to some factors and areas which we have considered to have bearing on creative teaching and in building the conditions for developing creative approaches to teaching at the same time as unlocking the

potential creativity of learners. We do not claim that these factors and areas are the only ones to bear on creative teaching indeed with a concept like creativity the factors involved are infinite. Rather we have limited ourselves to a selection which we have found particularly relevant, adopting a different perspective would reveal other issues. While the factors and areas we have selected have applications across the spectrum of teaching, across different disciplines and areas of the curriculum they can be seen as having particular relevance for the creative teaching of languages.

In Section IV, we direct our attention more specifically to creativity in teaching and the experiences of students. Our aim has been to ascertain how students perceived the concept of creativity as related to their own life experiences and more specifically within the context of teaching and learning. In the belief that tapping into the imagination and exploring the use of personal imagery is crucial to the encouragement of creative thinking and creative outcomes, we present responses collected from two workshop sessions centred on this theme. We look at the role of feedback, a crucial element bearing in mind the unfolding quality we have seen as intrinsic to creative teaching, and explore different ways of collecting and dealing with feedback from students. We draw on our experiences in teaching other groups of students and reflect on to what extent more creative teaching is accessible to any teacher who wishes to move in this direction.

The Appendix contains a variety of different materials which have been included to support and illustrate the concepts discussed in the study together with additional examples of students' work and feedback deriving from areas and activities proposed as forming elements of creative teaching. The appendix also includes a section of creative activities for use in the language classroom with the dual focus of consolidating language learning together with developing creativity through raising awareness of different ways of thinking, seeing, and feeling.

4. CONSTRAINTS AND LIMITATIONS

We have explored the theme of creativity from various perspectives, but a main focus of this study has been to draw on our teaching experiences in a variety of different situations and contexts. More specifically to provide information for this study we have focused on our experiences working with particular groups of university students. While our interest is in creative teaching across the spectrum, to illustrate and support our study we have mainly drawn on the responses of Spanish students on pre service teacher training courses designed to prepare them for teaching English as a foreign language to Spanish speakers. In spite of the specific objectives

of such courses the aspects of creative teaching which we have explored, can, we suggest, be applied in many different teaching situations and especially in foreign language classrooms. By involving these students to a large extent in experiential learning through a loop input approach we have attempted to give them direct experience of such thinking, approaches and techniques in the hope that they may be absorbed and creatively incorporated into their future teaching situations be they as teachers of English as a foreign language or in other contexts.

The body of literature on creativity is growing continually and we do not claim to have made a comprehensive study of the field, far from it. Rather we have limited ourselves to areas which we have seen as particularly relevant, applicable and workable in the contexts of classrooms which are not specifically devoted to creative studies, but where we strongly believe that creative approaches can and should be included to make teaching and learning experiences richer, more meaningful and more personally rewarding

I. State of the art/contextualisation

1.1 WHAT IS CREATIVITY?

Creativity has it origins in the subconscious mind of human beings. Any discussion on creativity inevitably draws on areas like memory, imagination and intuition, from where spring the seeds of creativity.

> Creation begins typically with a vague, even a confused excitement, some sort of yearning or hunch, or other preverbal intimation of approaching or potential resolution. Stephen Spender's expression is exact: «a dim cloud of an idea which I feel must be condensed into a shower of words». (Ghiselin 1952: 14)

We start from the premise that while much importance is rightly given to conscious modes of thinking in our lives, in our work and in education, very little attention is paid to the less conscious ways of thinking. Ways in which we are all probably aware of to greater or lesser degrees in our own internal lives but to which little value and importance is attributed. Much emphasis in this technological age is given to coming up with carefully reasoned and quick solutions. The decline in interest in slower more intuitive ways of thinking may have something to do with what American social critic Neil Postman (1992) has coined "technopoly". For Postman, technopoly seems based on the belief that the primary goal, if not the only goal of human labour and thought is on efficiency; that technical calculation is in all respects superior to human judgement; that in fact human judgement cannot be trusted, because it is plagued by laxity, ambiguity, and unnecessary complexity; that subjectivity is an obstacle to clear thinking, that what cannot be measured either does not exist or is of no value; and that the affairs of citizens are best guided and conducted by experts. Beliefs like these work against and devalue slower, more meditative ways of thinking. Yet it is from these slower, deeper ways of "thinking" which allow the unconscious mind to react with the conscious logically thinking mind, that intuition, hunches, imagination and creativity emerge.

We intend to develp these ideas by looking at questions like: What is creativity? What do we know about creativity and other related phenomena like insight, intuition

and imagination? Where does creative inspiration come from? Can anyone be creative or is it something one is born with or not? Can anyone tap into unconcoscious ways of thinking? How can these processes be developed? And from the point of view of teaching do we need to concern ourselves with creativity and why?

Traditionally creativity has been and probably still is most often associated in people's minds with those working in areas such as art, music and writing and there is much to be learnt from the experiences and processes of such people. However, if we look beyond the interpretation of creativity as something associated with exceptionally gifted people, we will see how creativity can and should be part of everyone's life and how moves to bring creativity down from the inaccessible pedestal on which it has been placed to make it an increasingly more vital and accessible element in all our lives.

Creative people are often thought of as being especially gifted or talented in some way, or even as individuals to whom the muses have been generous. Implicit in this assumption is that these special gifts are something that lesser mortals do not possess or cannot even acquire. Often there is the assumption that the qualities that make someone creative are in some way innate and that they cannot be acquired in any other way, creativity being seen as something inherited from others who have been fortunate enough to have it passed on to them.

Creativity can be viewed as a vital element in the process of change, of development and of evolution. For just as a creative piece of art work or writing can break new frontiers, help us to change our ways of thinking and viewing the world, so do new inventions and technology move us on and change the way we live and organise our lives. Being creative requires breaking preconceived ways of thinking and risk taking. Barrow (1995) reminds us that sailing off into the unknown as did explorers of past ages, ill equipped and moreover when the accepted knowledge of the Earth, was that it was flat, demonstrated risk taking and challenged the then accepted ways of thinking. Inevitably our lives are radically changed by those in the past and in the present who are willing to risks the odds and without whom our lives would not have evolved as they have or in the same time span.

An interest in the creative process is not new. People have always been curious and interested to know what it is and how it works. During the last two thousand years many thinkers have concerned themselves with these issues. Philosophers, psychologists and other scientists have probed the subject and continue to do so. Many fascinating and enlightening insights into the creative process have come from the thinkers, writers and artists themselves describing vividly their own insights into what they have observed about themselves during the process of, for

example painting a picture, writing a poem or solving a problem in mathematics or physics.

This interest seems now stronger than ever with a growing drive to find out about such processes in people acknowledged to be creative, with the aim of making available the insights gained into their creative experiences transferable to those who do not think of themselves as creative, or those would like to develop their creative faculties. Not only is this of interest to individuals but it is also a concern in business, industry and technology, (where creativity is often referred to as "problem solving") and where it is turned to issues like making the workforce more efficient, the product or the service more appealing.

Creativity is sometimes described as seeing the same thing as everybody else but thinking of something different, or the ability to take existing objects and combine them in different ways for new purposes. Such prosaic descriptions should not dimish the creative outcomes arrived at in these ways; they may result in outcomes which change the world. Gutenberg, for example took the wine press and the die punch and produced a printing press. Creativity also has to do with playing with the interrelatedness of ideas or things and which involves the translation of our unique gifts, talents and vision into an external reality that is new and at the same time useful.

While the kind of creativity associated with creative geniuses is most commonly brought to mind, creativity can manifest itself in different degrees. Some people have the ability which allows them to be, for example, clever at making things or they are able to come up with novel ideas and solutions. Such people are often accredited by others as having creativity abilities. The creativity of young children is usually recognised as a natural and innate quality, but one which seems to get lost, forgotten or imprinted by less open ways of thinking in many people as they get older. Later we hope to show that creativity is not restricted to the chosen few and the very young, but that it is a faculty that can be developed in most people. Clearly not everyone is a born genius, but that does not mean either that creativity is or should be restricted only to the chosen few.

To illustrate some of the phases or stages in the creative process it is useful to look at some accounts of the process as experienced by exceptionally creative people. With an interest in creativity and creative processes gathering strength at the beginning of the twentyfirst century it is interesting to see how people thinking about these issues nearly a hundred years described such processes. One model of creativity which has stood the test of time sees the process as comprising four main stages: preparation, incubation, illumination and verification (Wallas 1926). Many

others have suggested slight modifications or used different terminolgy but in the end most seem to be identifying a very similar set of steps in the process. The metaphor of conception, gestation and birth, is a commonly used one. At some stage the creative process has to be subjected to the scrutiny of the rational thinking mind. Describing the creative processes of Walt Disney, Dilts (1991) saw those stages in terms of; the "dreamer", the less or unconscious stage of the process, when ideas or inspiration emerge; the "realist" phase is where ideas generated are filtered, the best ones being put into some more tangible, viable form and; the "spoiler" or "critic" which acts as an evaluator selecting those solutions which will meet with approval and recognition.

All analyses of creative processes acknowledge the necessity for a kind of interaction between conscious and non-conscious thinking mind processes. Koestler (1989) visualises it in this way,

> There is a two way traffic between conscious and unconscious. One traffic stream continually moves in a downward direction: we concentrate on new experiences, arrange them into patterns, develop new observational skills, muscular dexterities, verbal aptitudes; and when those have been mastered by continued practice, the controls are handed over to a kind of automaton, and the whole assembly is dispatched, along the gradients of awareness, out of sight. The upward traffic moves in the small fluctuating pulses from the unconscious which sustains the dynamic balance of the mind- and in the rare, sudden surges of creativity, which may lead to a restructuring of a whole mental landscape. (181)

While much more is understood at the time of writing about the functioning of the human brain, shedding some light on some of the processes involved in creative thinking, we have found it particularly interesting to observe how different individuals' reflections on their own creative processes time and time again reveal similar characteristics.The words used to describe the experiences may be different but the underlying process are very similar. To illustrate this we have drawn on accounts from a variety of writings, some of which go back to the beginning of the last century. One source which we have found particularly inspirational has been the work of Ghiselin (1952) which brings together accounts of creative processes difficult to track down in their original form. One such example from the beginning of the twentieth century, the French mathematician, Henri Poincaré (1913), interested in his own creative processes, set himself the task of probing into and describing what he was able to observe of those processes when faced with a problem which had to be solved. To the question "what is mathematical creation?" Poincaré decided that creativity does not consist in simply making new combinations with entities already

known. If these were so then the combinations arrived at would be infinite and most of them without interest, to create consists precisely in not making useless combinations but in making those which are useful. So the ideas which the subconscious throws up need to be carefully considered and selected from. Poincaré claimed that "Invention is choice, invention is discernment". (Cited in Ghiselin: 36) and described his experiences working on problematic mathematical functions, telling how for fifteen days he grappled with the seemingly insoluble problem.

> I was very ignorant then; everyday I seated myself at my worktable, stayed an hour or two, tried a great number of combinations and reached no results. One evening contrary to my custom, I drank black coffee and could not sleep. Ideas rose in crowds; I felt them collide until pairs interlocked, so to speak, making a stable combination, By the next morning I had established a class of Fuschian Functions, I had only to write the results, which took but a few hours (Cited in Ghiselin: 36).

This however was but one phase of the problem and leaving subsequent stages still unresolved he left his home town to go on a geological expedition and his mathematical work was temporarily forgotten. He relates how as he put his foot on the step of the bus which was to carry him to his destination, the revelation which would resolve the next stage in the problematical functions suddenly came to him without any obvious reason or prompting. He had no opportunity to verify his sudden insight but felt completely certain that his intuition was correct and later when he returned he was able to verify that it was in fact true. The process did not stop here for he then set himself to work on some further mathematical enquiries. Without success and frustrated by his failure he again went away for a few days to the seaside and dedicated his thoughts to matters unrelated to mathematics. Once again, this time whilst out walking the idea came to him with the same characteristics of brevity, suddenness and immediate certainty giving him the insight that he needed. Returning home he meditated on the result and set about deducing the consequences of the insight. Recognising the vital importance of the two way traffic between conscious and less conscious modes of thought Poincaré in future consciously adopted the approach of committing the "problem" to his unconscious mind leaving his conscious mind to deal with other matters.

For Poincaré the most striking part of the process was the sudden appearance of illumination, a manifest sign, he claimed of long, unconscious, prior work. It seems that when one works hard at a problem nothing or very little good comes out of the first attempt, but then takes a rest of some kind, shorter or longer and then the decisive idea presents itself to the mind. Poincaré speculated whether the conscious work had become more fruitful because it had been interrupted and rested, or what

he thought was more likely was that in the interim period the unconscious mind had carried on working and the revelation had come while working, rather than seemingly out of the blue as when has walking or during a journey. His flashes of inspiration "never happen except after some days of voluntary effort which has appeared absolutely fruitless and from which no good seems to have come", and concluded that "the earlier efforts have not been as sterile as one thinks; they have set going the unconscious machine and without them it would not have moved and would have produced nothing" (38). Ghiselin suggested that looking at creative processes of people not involved art could provide new insights as they draw less on the outside world for their inspiration. Yet whether considering the creative processes of mathematicians, artists or writers the common factor is in the later observed interaction between unconscious and conscious processes. In the 1930s, the poet Amy Lowell (cited in Ghiselin) claimed that if asked how poems were made would have to answer that she didn't know.

> It makes not the slightest difference that the question asked refers solely to my own poems, for I know as little of how they are made as I do of anyone else's. What I do know about them is only a millionth part of what there must be to know. I meet them where they touch consciousness and that is already a considerable distance along the road of evolution. (109)

A character in the novel *Amsterdam* (McEwan, 1998) is assigned the role of casting light on the creative process, where a composer seeking the all important but as yet elusive culminating piece for a symphony which he is composing knows that it will not be forced and will not come by sitting at the piano and concentrating on the task in hand.

> It could come only in its own time. He knew from experience that the best he could do was relax, step back, while remaining alert and receptive. He would have to take a long walk in the countryside, or even a series of walks. He needed mountains, big skies. The Lake District, perhaps. The best ideas caught him by surprise at the end of twenty miles when his mind was elsewhere. (24)

And later when his process for tapping his subconscious has borne fruits,

> In its simplicity lay all the authority of a lifetime's work. He also had no doubt that it was not a piece of music waiting to be discovered; what he had been doing was creating it, forging it out of the call of the bird, taking advantage of the alert passivity of an engaged creating mind. (87)

1.2 WHERE DOES CREATIVE INSPIRATION COME FROM?

Anyone who has ever written a poem or painted a picture will have their own observations and insights into their own processes of working towards and arriving at a finished piece of work. One may have a desire to paint something and even the vague idea in one's mind's eye of how one visualises the finished piece. This may be the starting point but to have too clear a view of how one wishes the painting to turn out will be counter productive if the painting is to be a truly creative response.

D.H. Lawrence who directed his creative energy to painting as well as writing, for the delight it gave him, described the all important first encounter with the canvas when starting a new painting.

> It is to me the most exciting moment –when you have a blank canvas and a big brush, full of wet colour, and you plunge. It is just like diving into a pond-then you start frantically to swim. So far as I am concerned, it is like swimming in a baffling current and being rather frightened and very thrilled, gasping and striking out for all you're worth. The knowing eye watches sharp as a needle, but the picture comes clean out of instinct, intuition and sheer physical action. Once the instinct and the intuition get into the brush stroke, the picture happens, if it is to be a picture at all (Cited in Ghiselin: 69).

For from the very first brushstroke on a blank canvas a dynamic scenario is set up and with each successive brush stroke the situation changes. One has to react in a multitude of ways to each and every mark one makes, each mark affects the next, each decision is affected by all the other decision. Colour, tone, the type of brush stroke, the type of mark, where to place the marks, and so on are all involved. One has to continually respond to what has gone before and what has gone before has not always been a consciously thought out response. It is as if one has to follow the clues of an as yet invisible and unrevealed plan of which one has to find the key or keys to. When things reach an impasse and refuse to be solved one has to be prepared to go away and leave the painting to itself. Wracking one's brains for a solution will probably only cause a false move which will have to be changed. Often leaving the painting to itself for a while, maybe overnight one will find a solution has presented itself. The feeling that the solution has presented itself without your conscious participation is further compounded by the frisson of shock when one views one's work after a spell away. It is in some way as if the painting has acquired an independent life of its own, separate and apart from you. Often this initial shock meeting with your work is your best chance of viewing it with a truly critical eye.

The subconscious mind, however, cannot always be relied on to do all the work, sometimes it seems to go on strike and then the conscious training of the poet, writer or artist has to take over. Yet while the conscious mind needs to be able to step in when the unconscious fails or temporarily shuts down, it is extremely common for those involved in for example, writing or painting, when they have worked out what in general terms they wish their work to express and how it might appear in its finished form, that inevitably, during the process they are "taken over" in some way by events or characters in the plot. Writers often claim that once they have conceived the characters in their novel, then these characters seem to come to life and dictate to them, rather than the other way round, how they should behave, how their characters should develop and the unfolding role they play in the novel. And where else do these characters come from, but from the writer's own imagination and memory, which can sometimes be accessed or triggered off consciously, which may surface in dreams or in day dreaming or in those sometimes vague sensory images which pop into our consciousness unbidden.

Emphasising the unconscious part of creative processes does not mean ignoring the conscious parts of the process. Here the results of the inspiration are organised and put into shape, the immediate consequences are deduced and arranged and most importantly the results are verified. Many creative people have pointed to the salutary fact that even when the inspiration has been accompanied by a feeling of rightness, and even in Poincaré's case when in most cases the results were verifiable, there are times when the feeling of conviction as to the rightness can be just as strong yet the solutions which emanated from his subconscious were not later verifiable. These "deceiving inspirations" as Poincaré called them, most usually occur in hypnagogic states, often between sleep and wakefulness, when there is a strong conviction that the solutions the subconscious has released are good, but which do not later stand up to the tests of verification.

The term an «elegant solution» is often used in mathematics. This concept of elegance in finding the solution which most adequately solves the problem mathematically also clearly encapsulates an aesthetic and implicitly artistic consideration. Mathematical creativity is not only an intellectual activity but to meet with the best possible solution it also needs to conform both to artistic and emotional sensibilities. The harmony of numbers and forms, of geometric elegance, are in fact vital considerations in the search and choice of the elements that contribute towards creative solutions in mathematics. Poincaré claimed that the most useful mathematical combinations in terms of the solution are also those which are "the most beautiful". In art especially in painting and photography a geometric proportion used to describe a perfect balance, which involves a ratio of 1:162, is known as the "the golden section".

The need for the idea and its development to touch the emotions is another vital ingredient in creative processes.'Sometimes the seed of the creative idea may sometimes make itself known. Lowell tells how a poem or the germ of the idea can sometimes be traced back to, for example, a sight, a sound, a thought or an emotion. Sometimes the consciousness has no record of the initial impulse, which has either been forgotten, or springs from a deep, unrealised memory, "Whatever it is, emotion, hidden or apprehended, is **a** part of it, for only emotion can arouse the subconscious to action". (110)

In an interview the writer Paul Auster (1995) asked if he could explain the sources of his work, framed his answer thus,

> Frankly, I'm never really certain where any of it comes from. I'm sure there are deep psychological explanations for most of it, but I'm not terribly interested in trying to track down the source of my ideas. Hidden memories, traumas, childhood scars - there's no question that novels emerge from those inaccessible parts of ourselves. Every once in a while however, I'll have a glimmer or a sudden intuition about where something came from, but, it always happens after the fact, after the book is finished, at a moment when the book, no longer belongs to me. Just recently, as I was going through the manuscript for the *Music of Chance.*I understood that I was writing about something that had happened to me many years before. It was one of the most terrible moments of my life, an episode that has stayed with me ever since, and yet I wasn't aware of it at the time I composed that scene (123-124).

Thinking about the part emotion may play in a creative piece of work has led us to consider how this might be different when a piece of artwork is not the original concept of the person executing the work. Copying a piece of work may result in an accomplished and convincing copy, but the process will not necessarly have been creative. This is not to undervalue the skill required to execute an excellent and convincing copy of, for example a painting by Vermeer. If the copier tries to follow the original too closely then it may not "work" as far as the creative process is concerned. To make it "work" creatively the "copier" will have to make some personal investment in it and to make it in some way her own. If the creator of the original felt inspired in some way some kind of emotional involvement was implied and this is exactly what the artist needs to draw out for himself. Surrogate emotions will not be enough, it is not enough to simply feel attracted to the subject matter or admire the technique. An emotional tie has to be present and continue to emerge. Perhaps putting away the original and allowing what remains in the memory to guide him towards a new, fresh and creative outcome with which he could be satisfied would

be a solution. What comes out time and again is that for something to be creative we have to relegate some of our conscious control and allow the subconscious to play its vital part.

Looking at the sources of inspiration for creativity reveals a tangled web of ideas, images, imagination and memory. Lowes (1927) exploring Coleridge's description (cited in Ghiselin) of how the inspiration for his poem, Kubla Khan, came about whilst he was in a hypnagogic mental state somewhere between consciousness and unconsciousness, (which many believe was in fact an opium induced state), will remind most people of a similar state waking up slowly to consciousness which is not quite reached but drifted in and out of, somewhere between waking and dreamlike states. During this half-awake / half-asleep state very vivid images often surface in our minds. These images, unlike those which occur at different stages in our sleep patterns, often remain remarkably vivid, even returning to us during the day in an unbidden response to a possibly unconscious trigger. Coleridge woke from his «dream-like» state three hours later "with the most vivid confidence that he could not have composed less than two to three hundred lines – if that indeed can be called composition, in which all the images rose up before him ...without any sensation or consciousness of effort" (85), and immediately Coleridge took paper and pen and eagerly wrote down those famous lines. We should remember that the images and insight that surface to the consciousness cannot always be trusted. Poincaré (40) warned of not putting total trust in them. Like others he realised that they need to be verified in the light of a wakeful and rational mind. The rational, conscious mind needs to assume a role as a filter selecting and rejecting the possibilities that are not suitable for the particular project being worked on.

Albert Einstein famously said that imagination was more important than knowledge and the story of how he gained insight through his ability to create mental images is well known. For Einstein like other creators, the language of intuition drew on visual and other forms of imagery.

> The words of the language as they are written or spoken do not seem to play any role in my mechanism of thought. The psychical entities which seem to serve as elements of thought are certain signs and more or less clear images which can be "voluntarily" reproduced and combinedÉ. The above mentioned elements are in my case of visual and some of muscular type. Conventional words or other signs have to be sought for laboriously only in a second stage. When the mentioned associative play is well established and can be reproduced at will ariuThese elements take part in a rather vague play ... in which they can be voluntarily reproduced and combined ...This combinatory play seems to be the essential feature in

> productive thought, before there is any conection with logical construction in words or other kinds of sign which can be communicated to others... In a stage where words intervene at all, they are, in my case, purely auditive, but they interfere only in a secondary stage (Hadamard 1945, cited in Ghiselin: 43).

Like imagination, insight and intuition also have their part to play in the creative process, though alone they are not enough. They are the emanations of a process of knowledge getting which happens over a long period of time in a slow cumulative process.Imagination is an important element in the creative process. Gerard (1946) saw the power of the imagination as a potent factor in evolution.

> Imagination is to social inheritance what mutation is to biological inheritance, it accounts for the survival of the fittest. Reason or logic, applied when judgement indicates that the new is promising, acts like natural selection to pan the gold grains from the sand and ensure the survival of the fittest. Imagination supplies the premises and asks the questions from which reason grinds out the conclusions as a calculating machine supplies answers (quoted in Ghiselin: 227).

It has been said that there is 'nothing new under the sun'. Definitions of creativity fall back again and again on the idea of it being necessary to juggle, to juxtapose, to select and recombine, to view in fresh and novel ways information which is already, in some way, available to us. Even if we are not consciously aware of what that information may be. J.D. Barrow (1993) illustrates the extent to which the way we organise our perceptions, beliefs and experiences is influenced by the sometimes consciously perceived, sometimes unconsciously absorbed influences of the universe in which we live.

Creative responses, as we have seen seem to be the result of elements coming together in our minds which often originate in sources of which we are not always aware of or able to track down despite our efforts to do so. Vague and elusive they may be but they are nevertheless recorded somewhere in our minds. This does not mean however that they are irretrievably lost to us. When we commit ourselves to the process of creativity they may well emerge once again. The historian J.L.Lowe made a detailed study of the sources and materials on which Coleridge based his poem, 'The Ancient Mariner'. He was able to trace every word and phrase that appears in the most vivid stanzas of the poem and summarises the processes that must have being going on in the subconscious mind of Coleridge

> Facts which sank at intervals out of conscious recollection drew together beneath the surface through almost chemical affinities of common

> elements ...And there in Coleridge's unconscious mind, while his consciousness was busy with the toothache, or Hartley's infant ills, or pleasant strollings with the Wordsworths between Nether Stowey and Alfoxden, or what is dreamt in this or that philosophy- there in the dark moved the phantasms of the fishes and animalculae and serpentine forms of his vicarious voyagings, thrusting out tentacles of association, and interweaving beyond disengagement (Cited in Ghiselin: 23).

Erhenzweig (1973) has described an "oceanic" or "undifferentiated" evocation of memory. It is that kind of memory experience whcih seems to have no particular location in our bodies. Initially we feel, and sometimes these feelings or emotions can seem even physical. The feelings and the images come long before any words we may find adequate to describe them. They are made up of a combination of subliminal elements which have impinged upon our unconsciousness before our conscious mind has even registered the stimuli or been able to categorise and identify them.

Some people may identify with the experience of revisiting a place after a long absence. The experience may be particularly poignant if it involves a childhood experience. For returning after many years away one may be overwhelmed by powerful feelings of familiarity and oneness with things which at the time one was not consciously aware of, or even to be able to put into words. Attempting to make contact with these types of memories may need some probing or they will remain intangible and unexpressible. Such probing in our own case revealed that these oceanic memories had much to do with things like the gentle contours of the countryside, the design of buildings, the colour of the earth, the scents of plants and flowers and animals, the effect of light, and the seasons. All had been in some subliminal way recognised and unconsciously matched up with those early impressions to engender a feeling of recognition, rightness and oneness with the whole environment. Revisiting the place pulls these types of memories nearer the surface of consciousness and later they may be triggered once more by some isolated incident, thought or image.

These kind of memory traces most of us are probably quite content to dust down and enjoy for a while before putting them away again, if the memories are pleasant. Less pleasant memories we may choose not to consciously recall although they remain in our memories and may well come to us unbidden. It is just these types of memories which can prove so inexplicably potent and which can often provide the unconscious associations and connections which will later surface and provide the creative inspiration for example, for a painting or a novel.

> Maybe it is these types of experiences which positively influence the artist's preferences for some aspect of nature or experience and make some more congenial to his temperament than others. For another factor in the artist's choice of subject matter must certainly be that they are affectively related to certain forms and designs and that the choice is channelled by the compulsion to find an objective and a vehicle of expression for those inward images.

Creative people were often said to have been blessed by the muses, implying that a benevolent spirit, a presence outside and separate from oneself, had somehow bestowed their creativity ability on them. The playwright Jean Cocteau (1946) while giving his backing to the necessity of allowing the mind the necessary time to work creatively held little faith in the magical or supernatural powers of the muse.

> Often the public forms an idea of inspiration that is quite false, almost a religious notion. Alas! I do not believe that inspiration falls from heaven. I think it rather the result of a profound indolence and of our capacity to put to work certain forces within us, with the aid of the elements of everyday life, its scenes and its passions, and when ... the work that makes itself within us, and in spite of us demands to be born, we can believe that this work comes to us from beyond and is offered by the gods. The artist is more slumberous in order that he shall not work ...The poet is at the disposal of his night. His role is humble, he must clean house and await its due visitation (Cited in Ghislein: 81).

The idea of creativity being a gift from outside of ourselves now holds less truth for many people, even if they continue to use the expression. Maybe however the term is used to describe what is seen by some as a rather mysterious process. We have seen from some of the reflections of the creative processes of people like writers, artists and mathematicians that they do not credit their creative abilities to inexplicable processes which have nothing to do with them and of which they are simply the fortunate beneficiaries.In addition it is not only in the ideas and the inspiration which come to creative people, these ideas have be subjected to the rational mind and then the artist or the writer has to use their skills to draw all together in some concrete representation of all those processes.

The highly original British fashion designer Vivienne Westwood has said that when people have asked her where she gets her inspiration from, she has realised that she is in fact her own muse, using her own younger self as her source of ideas and inspiration for her current work, which provides the elements which come together in previously unthought of configurations for new creations.

With this observation we return to the idea previously suggested above, that the raw material which provides the basis and the source for our creative inspiration can only come from our life experience and in this respect memory has a vital and integral part to play. For Marcel Proust, the taste of a madeleine cake was sufficient to generate twelve volumes of *Remembrance of Things Past*, transmuted from memory to novel cycle in the sanctity of his room in Paris. The great Swedish film director Ingmar Bergman started his autobiography with a description of an event which happened to him as a very small child written with such clarity that it seems hard to believe the event had occurred seventy years before. Many of Bergman's films draw on this world of childhood experience, his own private memories transformed into moving screen images for public inspection.

But memory can play curious tricks on us and sometimes we are re- membering the memory. When we revisit memories we may be going back not to the original experience but to an often-visited memory

> I have taken out these internally filed photographs, redeveloped and printed them, cropped a little differently, made them matte or gloss, black and white or colour, enlarged them to fit a new frame just as much as Bergman has transformed his for public viewing. Every time I remember these events, I recreate a memory anew; in writing these sentences now they cease to be the recall of episodes of wartime London childhood of the early 1940s but have been transmuted by thought and writing into the memories of today (Rose 1993: 35).

Yet perhaps this does matter too much, for inspite of the updating of our memories they provide a source of seemingly infinite collections of consciously and unconsciously registered, sometimes remembered, sometimes forgotten memory imprints of sights, sounds, smells, tastes, touch, emotions. These memory traces do not necessarily come to our conscious minds alone, isolated. Nor do they always come at our conscious bidding, but frequently surface unbidden when we least expect them, without any obvious effort of conscious recall or apparent logical connection with what we are involved in at the time. One memory image will often trigger off another and another, leading us, if we allow it on a journey where time and space have little importance. Such images rarely seem to be triggered in chronological order and seem to just pop into the mind in random fashion, which we now know to be a function of the associative and interconnected nature of the human brain.

While the inspiration for human creativity may often develop from memories forgotten and revived, forgotten and reconstructed or vividly remembered, what may most

truly inspire us to creativity is the human spirit's perpetual search for beauty. Beauty of sound, of form, of image and of thought can instil in us a sense of enrichment. Nulan, (1998) a surgeon and a teacher of surgery and the history of medicine at Yale University, who combines these skills with those of a writer looks to the miracle of the human body as the true inspiration of creativity and invites us to consider poetry as mirroring the complex synchronised perfection of the human body.

The ability to nurture and learn to listen to one's 'inner voice' or intuition and to learn to allow the subconscious to take its part in thinking and creative processes is emphasised, yet all too often we ignore the signs, the vague hunches, the sudden idea which surfaces and for a brief spell fires our enthusiasm and let it sink back unexploited unexplored into the unconscious.

Whether we think everyone is born with the creative faculty may well depend on our interpretation of what is understood by "creative". If we maintain the belief that creativity means being able to compose magical music, write memorable novels and poems, paint artistic masterpieces and fashion beautiful artefacts, then we may come to the conclusion that creativity is a gift with which not everyone has been blessed. Not everyone however, does hold this belief. While most would accept that the Mozart, Picasso and Einstein were of a very special and gifted minority, creativity can function on more accessible levels, well within the reach of most people, if they are aware of the possibility, are prepared to accept the idea and to do something about it. So although we have up till now focused our discussion on that more special kind of creativity associated with artists, composers, and writers, we see creativity as being of varying degrees and being accessible to most normal people. The insights gleaned from looking at the creative processes of the gifted can however point towards ways in which the creative ability can be developed in all of us.

Creativity is often said to be of two main categories, that which affects history, "historical creativity" and the more personal level of creativity which makes the life experience richer, more satisfying and fulfilled for the individual and which may well flow over into and positively affect the lives of others. There is no clear-cut distinction between these two types and rather we see creativity as a cline along which one may be placed, and which is not necessarily a fixed point for we believe that we can learn to live our lives more creatively.

Herrmann (1989) has suggested that the world contains three main groups of people:

- Those who are already creative and who actively exercise their creative gifts for pleasure and profit.

- Those who are sometimes creative: people who experience moments of creative brilliance, but only occasionally.

- Those who can be creative, but who have yet to tap into that potential.

Some see creativity as a function of the way the neurology is used, or in the way the process of how one's thinking is organised. Dilts (1991) has gone so far as to claim that creativity is like spelling or reading. It is a set of steps that one goes through mentally, and is one that can be learnt and recapitulated by others. Others emphasise that creative processes require divergent and convergent types of thinking or reasoning. Divergent thinking is the intellectual ability to think of many original, diverse and elaborate ideas. Convergent thinking is the intellectual ability to logically evaluate, criticise and choose the best idea from a selection of ideas. Both these are necessary for creative output. Divergent thinking may be essential to the novelty of creative products whereas convergent thinking is fundamental to the appropriateness and suitability of the creative product.

The generation of creative solutions is also seen as depending to a great extent on one's ability to break patterns and to see familiar things in a new or fresh way. The gestalt school of psychology emphasised the concept of "closure", which is the human tendency to fill in a space to finish or complete an unfinished form. We "see" three dots separated dots as the corners of a triangle, a circle with a small part of its circumference missing we will at first glance interpret as a circle. Stars in the night sky are "joined up" to construe the completed forms of hunters and bears. Yet it is just this tendency to always seek closure and to impose a preconceived pattern or configuration on a situation or a problem which needs to be broken if we are to arrive at creative solutions. Once established, thought patterns are notoriously difficult to break. We tend to follow time and again the thought tracks which have already become established in our minds and it is often quite difficult to break from them unless we take specific measures to do so.

1.3. SCIENTIFIC UNDERPINNINGS OF CREATIVE PROCESSES AND THE HUMAN BRAIN

In the 1940s Gerard looked forward to a time when imaginative phenomena in terms of neural mechanisms might be presented. The last decade end of the twentieth century was designated the 'Decade of the Brain' by the United States Congress, and interest in the human brain and mind gathers strength. Symposiums on Brain, Mind and Consciousness abound, both in popular science, specialist publications

and journals. The new discipline of neuro-cognitive science makes its presence felt. More and more, scientists and writers in the field are able to provide isights into processes once intuitively held and believed and which are now supported by the underpinning of the discoveries that science gives us. Neuroscientists researching into the working of the human brain are, through the discoveries of science, more able to provide scientific underpinnings to the subjectively described experiences of artists and writers. Quantum physics too, uncannily parallels many of the long held beliefs of oriental philosophies and perhaps gives added relevance to these concepts when they can be seen to not only be part of ancient beliefs but also to tie in with a growing awareness and knowledge of scientific principles.

We offer here what is obviously the most simplistic of descriptions of the brain, only to provide a little insight into how the structure and functioing of brain cells plays a part in thinking and in the possibilities of generating 'new' or creative responses to situations.

The brain is composed of a vast number of brain cells, or neurons, usually estimated to be some in the region of twenty million, in human beings, each of these neurons is embedded in a mass of much smaller cells called glia. The role of the glial cells seems to be of a supportive, nurturant and protective type and there may be as many as ten glial cells for every single neuron. Studies of Einstein's brain have shown that in a certain area of his brain, the parietal lobe, where abstract thought is believed to be facilitated, he had an unusually high numbers of glial cells. This could indicate that he was using that part of the brain cognitively and extensively. Each neuron has a nucleus from which branch out the dendrites, studded with small spines. Running away from the cell nucleus is the axon, which branches into an array of processes each ending in synaptic terminals at which contact is made with the dendrites or cell bodies of other neurons. Neurons come in many shapes and sizes, but the key features of all neurons are; the cell body, dendrites, axon and synaptic terminals. A neuron might be visualised as a minute tree, vast numbers of which are packed together in the brain in a dense jungle. Where the roots and branches- the dendrites- touch, at junctions called synapses, they are able to stimulate each other. The function of a neuron is to carry small bursts of electrical current. In very simple words it works in this way.

Electrical activity in one currently active neuron influences the chances that another currently inactive neuron will become electrically active in its turn. An inactive neuron usually needs to collect the stimulation from a number of active neurons until is has built up enough excitation of its own to be able to''fire'. When it fires, a train of impulses is started along its own axon and into its dendrites, where it can contribute to the excitation of other cells with which it is in contact. No one input

will fire another inactive cell on its own, but each contributes to the general pool of activation, making the cell more or less disposed to fire in response to other inputs. How the neural electrical impulses originate, are conveyed along the axon, and serve to activate other neurons is summarised briefly by Claxton (1998).

> Each neuron is covered with a semi-permeable membrane that is able to retain some kinds of chemicals within the body of the cell and keep others out. Many of these chemical particles carry a small electrical charge, either positive or negative, and the membrane, in its normal state, is selectively permeable to these 'ions', in such a way that it is able to maintain an electrical gradient, a potential difference, between the inside of the cell and the fluid which surrounds it. However, under the influence of other chemicals known as neuro-transmitters, which may be released into the ambient fluid, the character of the membrane changes so that charged 'ions' are allowed to flow across it, and it is this flow which initiates the chain of events that may result in a burst of electricity, an action potential, travelling from one end of the neuron to the other. (135)

Nerve cells are never completely at rest and these action potentials occur spontaneously at more or less regular intervals, even when we are asleep their activity continues and the pattern and frequency of firing can be dramatically altered by the events at the synaptic junctions with other cells. A wave of electricity arriving at a synapse from an active cell causes neurotransmitters to be released into the gap between it and the inactive cell. These molecules float across the gap and attach themselves to the receptors on the membrane on the inactive side, causing it in its turn, to allow charged ions to flood into the cell and set off another action potential.

Learning and life experience can permanently change the electrical communication between neurons. One way in which experience affects the long-term flow of neural growth is through physical dendritic growth. The number of synapses can increase and synapses are also capable of becoming easier for an impulse to cross, a process called long-term potentiation.

> When neurotransmitters are released into the synaptic channel between the upstream (currently active) and downstream (currently inactive) neurons, some of the pores in the downstream membrane open up easily to let the charged ions across. However other receptor sites start out by being more tightly constricted, and will only open up if they are subjected

> to stimulation that is strong and long lasting. But once they have been opened, they take less persuading on subsequent occasions. For some time after they have been subjected to strong stimulation, the NMDA[1] pores will respond to a much weaker signal. (137)

This is the fundamental mechanism that allows the brain to learn. Hebb (1949) a pioneer of brain research, described how when an axon of cell A is near enough to excite a cell B and repeatedly and persistently takes part in firing it, some growth process or metabolic change takes place in one or both cells such that A's efficiency, as one of the cells firing B, is increased. Claxton picturesquely put it like this "cells that grow together, glow together". (137)

Hebb was working at a time when a belief in Behaviourist psychology held sway and this theory offered a direct translation of the behavioural phenomenon of association – classical conditioning – into a neural mechanism. Yet where behaviourism viewed learning as conditioning, a trigger which could in turn trigger or stimulate a response, and often a fixed response, just the same processes occur in the brain in completely new learning experiences. Behaviourist psychology emphasised setting down patterns of learning which then become reinforced the more they are used, like a track once travelled and then followed countless times the track gets deeper and the brain tends in future situations to follow automatically the previously established path. New learning experiences however, establish new connections and open up new tracks. When learning new things and working in more creative ways new dendrite connections are made between neurons and thus greater use of the brain leads to more dendrite connectivity. Without the stimulation of new life experiences and openness and receptivity to them, those previously mentioned much-travelled tracks continue to be the default tracks of the mind.

A creative search, for example where ideas are brainstormed in conscious ways and which set off less conscious or unconscious responses, resembles in the brain, a maze, with many nodal points. From each of these points many possible pathways radiate in all directions leading to further crossroads where a new network of possible pathways comes into view. Each choice is equally crucial for further progress. While we cannot know where each pathway may lead us the important thing is that by using our brains, by challenging ourselves, by being open and flexible and in the process opening new pathways in favour of always following the 'well trodden'

[1] NMDA . N-methyl-d-aspartate

paths which lead us to predictable ends, helps to maintain the plasticity of the brain, helps to keep new ideas firing helps us to be more creative.

It is therefore important to provide opportunities for growth and development of our individual capacities by expanding our mental horizons rather than being content with what is immediately presented to us.

1.4. SOCIAL ASPECT OF CREATIVITY

While creativity depends overwhelmingly on the inner state of the individual it also has a social aspect. Do we just create for ourselves? If the work is kept in the mind can it called creative? Certainly it seems that some kind of outcome is necessary or the work remains in the mind still possessed by the creator, when as we have seen so often the creative artist, although they have conceived the idea and brought it to fruition feel that it is theirs and also that once come to full term, or even before, it somehow has an independent existence. An outcome might be, for example, an invention in response to some need in the market, a painting, a poem, a piece of music, a new idea put into practice, a working procedure, a way of responding to learners in the classroom which facilitates the learning process and encourages learners to produce in turn their own creative work. Certainly in the work of those recognised for their creative achievements, they would not be recognised as creative if they had not contributed in some way to changing reality in some way. It has often been said that one role of creativity is in the changing of human perceptions. This may take a considerable time to achieve. Often the work of a creative genius goes unrecognised until after their lifetime, the work seeming alien and unacceptable to the sensibilities of the time, and it is only later when the subtle chipping at the edifices of accepted standards makes us able to finally take on board the once alien and repugnant.

While these areas represent only a small section of the vast collection of thinking and writing on the area of creativity, we believe that the areas we have drawn out have particular relevance for a study of creativity in teaching. While there is little to be done to change any innate or inherited tendencies a person may have towards creative abilities, it has been recognised that nurture and the environment are influential factors in encouraging or discouraging creativity, and it is precisely in these areas where education can be highly influential.

1.5. WHY DO WE NEED TO CONCERN OURSELVES WITH PROCESSES LIKE CREATIVITY?

We are encouraged to believe that there are all kinds of ways in which we can make our lives richer, healthier, more fulfilled, more meaningful, more spiritual, as shown by a flood of books and other publications on the market. Many such publications suggested ways of developing creative potential in our every day lives as well as in areas more traditionally thought of as "creative " like the arts and writing as well as in business and industry. Is this then to imply that this type of creativity is the same as that described by people recognised to be creative people such as artists, writers, and composers? Do all the population have the potential to become creative geniuses? Rather what these trends towards developing our creative faculties imply is that while we cannot all aspire to become geniuses, we can nevertheless become, if we have the desire and the will, more creative. The implication is that we will therefore lead more fulfilled, richer and more rewarding lives on a personal level and by extension that we therefore contribute towards growth not only on a personal level but also that we contribute towards the evolution and development of life in general on this planet.

Creativity is seen as vital in areas of business, industry and technology, where there is an a growing and ongoing need to encourage creative thinking or problem solving in order to move on, evolve and respond to the rapid changes in life and society. This is even more heightened at the beginning of the new millennium with an increased awareness of the need for creative people with imagination who can come up with creative solutions to the issues and problems which threaten the planet Earth, for if we stick too closely to our already established forms of thought and consciousness and our often too rigid thought patterns we may be unprepared and unable to deal with change and unexpected events in our lives. Creative people throughout the centuries have always responded with convention breaking ideas, which have changed lives and set us off on new directions. As we have mentioned, one aspect of creative processes is being able to break through established patterns or gestalts for thinking about or doing something and to come up with a previously unthought of way of operating.

On other levels, which perhaps affect more our personal lives, growing numbers of people are concerned about the directions in which society in general is moving. Sometimes we may feel that consumerism and the mass media is taking over our lives. The acquisition of possessions is more and more becoming equated with satisfaction and happiness. There is a tendency to feel that when we have acquired the latest thing on the market we will be content, but as becomes all too obvious

with increasing rapidity, this is an unachievable goal as technology delivers with startling speed the latest and best which will all too soon be superseded by yet another latest and best. Our lives at times seem dominated by television and the mass media, and so bombarded by images that we become desensitised and somehow immune to what is happening in the world so that it no longer ceases to move us. On the ubiquitous television screens, scenes of violence and destruction are juxtaposed with the banal right in front of our eyes, with the effect of reducing events, important and trivial, to the same level. We have access to vast sources of information which can serve us or daunt and intimidate us. All this can help us feel that we belong, that we are in fact part of the whole global village, or conversely can make us feel even more separated and removed from our real selves. We are bombarded by information overkill. People claim that life is becoming more and more competitive and stressful. Children expect more and more sophisticated toys and are dissatisfied when they don't get what they want. All these trends seem to contrive to make us more dependent on being entertained, and looking for gratification from outside ourselves rather than developing the inner resources we need to make our lives richer and more satisfying. All too often we ignore or subdue our own individual resources and forget how to enjoy simple pleasures. Against this assault we may need to develop our own inner resources, to learn to be selective, to seek inner calm and fulfilment through personal creativity.

Many of these movements although directed towards the lives of people living at the end of the twentieth century are not in fact new. Rather they demonstrate a reframing and reviewing in the light of modern society, beliefs and philosophies which originated in other cultures associated more with eastern rather western philosophies. India and China have given Yoga and Chi' to the west. Both Yoga and Chi' show how by tuning in to the body's inner resources people can live their lives more at peace with themselves and the universe. Yoga and Chi' have existed for centuries and draw on the eternal values of ancient cultures. They point to how people can live in ways which are not governed by consumerism, materialism and external forces.

An emphasis on the connection between mind and body and the powerful interplay between the two is a recurrent theme in these philosophies and this too is an area which has been receiving considerable attention in recent years. Consider two examples: holistic medicine and "whole person" teaching. Both of these incorporate the belief that it is impossible to treat or deal with one aspect while ignoring the whole. Holistic medicine does not simply treat the symptom of an illness but looks for the cause in the context of the whole person, their lifestyle and habits. Whole person teaching works on the assumption that one can not simply teach a subject

to someone, the whole person has to be involved in the learning process and this includes feelings and emotion linked with cognitive processes. If we do not take into account the whole person in any teaching / learning situation, then successful teaching and learning is less likely to take place.

Chopra (1998) encapsulates modern scientific knowledge and the wisdom of oriental philosophies when he sets out his guidelines for getting the most out of life and living into a rewarding and healthy old age and suggests that creative experience is one of the values we must aim for in life, for it is "creative experience which keeps life interesting and makes us want more of it" (256). We are reminded that creativity is not the preserve of the young, Picasso, Shaw, Tolstoy and Michelangelo, all continued working creatively till the day they died. Psychologists studying creativity say that many artists and writers often produce more new ideas in their sixties and seventies than in their twenties. If we can apply this to people not working in areas not necessarily thought of as creative or artistic then this would be a cheering thought when we reflect on the apparent cult of youth and the implication that people beyond their forties are of no further use in areas of work where creative responses of some kind are called for. Going beyond the idea of creativity enriching our lives, "creative experience may enhance the structure of the brain itself" (256).

> The implication is that educated people, having been trained to use their minds, stimulate healthy brain activity. PET scans show increased blood flow to the brain during periods of creative thought; a distinctive EEG of coherent rhythms across all bands of brainwave activity is associated with the "Aha!" or "Eureka!" experience that characterizes art and creativity in general". (256)

It seems then, that if we can nurture and help people develop personal creativity not only may we be helping them to lead more interesting and satisfying lives but also to have longer and healthier lives too.

Time and again we meet the opinion that while human beings are all born with creative potential, that education in so many cases is suppressing the natural creativity of the individual. Even if it is as Edwards (1999) has claimed that educators are becoming more aware of the importance of intuitive and creative thought, it takes a remarkably long time for these influences to filter through to classrooms.

> Schools are still structured in the left hemisphere mode. Teaching is sequenced: students progress through grades, one, two, three in a linear direction. The main subjects learners study are verbal and numerical: reading and writing, arithmetic. Nowadays, however, seats are often set

> in circles rather than in rows. Time schedules are more flexible. But learners still converge on "correct" answers to often ambiguous questions. (40)

Only at very early ages is creativity fostered in schools. Many educational processes seem bent on squashing and repressing creative and individual thinking All to soon children are "taught" to become convergent thinkers, a trend that later becomes very difficult for most people to reverse.

In most education systems as Hamilton (1990) and many others point out, children past the age of twelve are put through a system of teaching which is given over to the winning of paper qualifications. Despite the beliefs held by many (Edwards 1999, Dilts 1991, Herrmann 1989) that every living being has the potential to be creative and that each of us is a unique individual capable of creating, school curriculums are devoted almost entirely to examination subjects, where the paramount aim is the acquisition of a designated set of facts. The objective seems to be to have as large and as complete memory of these facts as possible. Once they have been exhibited in the final examination they become largely superfluous. The facts have been converted into a title, and are quickly forgotten because they have made no real emotional impact. As they have not become part of that knowledge which Glaxton (1998) has distinguished from knowledge as "know how", referring to those things that we learn by a process of osmosis, and which are the things, abilities and skills which stay with us forever.

In secondary and tertiary education students have so often been trained to think in a convergent way that successful assessment requires them to regurgitate correctly the information they have "learnt" rather than be able to use the information in some way. They are frequently unable to synthesise, to be selective, to see cross connections and seek out the relevant information to answer examination questions but are though, very good at reproducing "learnt" material in its entirety.

There have of course always been waves of popularity for different teaching approaches. In the 1970s in Britain a move towards creativity in the classroom was instigated. This was particularly obvious in English language classrooms, where a focus on creativity and the expression of ideas was later shown to have been at the cost of accuracy. Pupils were unable to construct the grammatically correct sentences necessary to express their creative ideas, and the legacy of this particular pendulum swing is still apparent.

As in all areas of life, a balance is required, and while we need to give students the tools to express themselves as clearly and accurately as possible this does not

have to be at the expense of creativity. The two should and can be fostered side by side. If we are to educate young people to live in the world as it is now and also to cope with the rapidly changing world of the future they will need the inner resources to do so.

One of those resources is creativity. Not the creativity of genius, but those more accessible forms of creativity which allow individuals to live their lives more fully and in more personally satisfying ways as well continuing to move us forward into the ever more rapidly changing future positively and with optimism. We suggest that this concept of creativity is one which can and should be introduced into teaching and learning and our study aims to explore this concept.

II. Teaching as an art

INTRODUCTION

In this section our interest is focused on aspects of creativity which we see as particularly relevant in establishing possible parameters for creative teaching. To this end we have given careful consideration to a selection of authors and areas whose work contributes in some way towards our vision of creative teaching. For the most part these authors deal with creativity in more general terms and not with a specific emphasis towards creative teaching. Thus although we have drawn on the important contributions of these different writers, our endeavour has been to work towards a synthesis and framework through which the specific area of creativity in teaching might be developed. To achieve this we have added our own observations and drawn heavily on our own experience in teaching in a variety of different situations. Finally in this section we have proposed our own framework through which the concept of creative teaching might be viewed. This framework or metaphor in turn suggests many other aspects which can be taken into consideration to make teaching more creative. We explore these elements in sections III and IV.

1. A THEORETICAL FRAMEWORK FOR CREATIVITY.

We take as our starting point Amabile's (1983) theoretical framework for creativity. We base our discussion on this framework and go on to explore it from the point of view of creativity in teaching. The framework is a conceptualisation of creativity which distinguishes and describes the constituent components which, Amabile suggests, need to be present for creative production in any domain. It includes the dispositional, cognitive and social factors that appear to determine creativity.

Amabile's componential conceptualisation of creativity is grounded in a set of formal and informal beliefs about creative production, as well as a set of assumptions about the nature of creativity. We refer to them here in considerable detail for their particular relevance to our area of inquiry and the apparent close parallels to what

we have suggested as a framework for creative teaching[1]. Amabile's "Preliminary assumptions and observations" (66), which underpin her components of creative production, and on which her componential framework for creativity is based, have both general and specific relevance for our study. We present them here and later pick up on specific areas with the intention of discussing them from the point of view of creativity in teaching.

1.1. Preliminary assumptions and observations

- It is assumed that there *is a continuum from the low levels of creativity observed in everyday life to historically significant advances in science, literature and the arts*[2]*.* In contrast to popular views of creativity as a discrete entity, this assumption implies that it is possible for anyone with normal cognitive abilities to produce work that is creative to some degree in some domain of endeavour.

- A closely related assumption is that there can *be degrees of creativity within a particular individual's work.*

- At least for high levels of creativity, there often seems to be a special "match" between individuals and domains (Feldman 1980). There appears to be a particularly good fit, for example between one individual and chess playing, or between another individual and musical composition.

- *The ages at which peak creativity is achieved in different domains varies widely.*

- Although different individuals may differ widely in their potential for creative performance in any given domain, it does appear to be *possible to increase creativity to some extent.* (Stein 1974). Specifically, although innate abilities talents in a given domain do appear to be important for high levels of creativity, formal education seems essential in most outstanding creative achievements (Feldman 1980).

- Talents, education and cognitive skills do not by themselves appear to be sufficient for high levels of creativity.

---

1 See Part 6 of this section.

2 Words in Shorthand bold letter type indicate added emphasis of points relevant to our study.

- Particular clusters of personality traits are found fairly consistently among individuals exhibiting high levels of creativity (Stein 1974) but they are not sufficient in and of themselves. Certainly*, any given individual* – even one exhibiting a particular "creative" personality –trait- constellation**-** *is not creative at all times or in all domains.*

- A great many outstandingly creative individuals (e.g. Poincaré 1924) have described the phenomenon of *incubation.* This represents a mental stage when after ceasing to work consciously on an issue, a difficult problem, or some challenging task they sometimes experience *a flash of insight*, an apparent flash of illumination, *in which the solution appears to them unexpectedly.*

- Although eagerness to work diligently appears to be an essential component of high levels of creativity (Golann, 1963) as marked by a *deep involvement in the activity* in hand, accounts such as these also stress the importance of intellectual playfulness and freedom from external constraints (e.g. Einstein 1949).

- Although it appears that extrinsic motivation can be detrimental to creativity, there are individuals who appear to produce consistently creative work under clear and salient extrinsic constraints

1.2. A componential framework of creativity

Amabile's research into creativity led to the conceptualisation of a componential framework for creativity. Within the framework for creative teaching which we propose later in this section, we see the teacher, like the artist, as needing to have certain *skills* and *motivating forces* if the process and the outcome are to fit within the concept of creative teaching. The teacher needs to have the skills related to teaching which include for example, the ability to facilitate learning in students, a sound knowledge of the subject matter and equally important the ability to successfully transmit that subject matter, the ability to create a conducive learning environment which includes knowledge and application of important aspects like affective factors, and all those aspects which we see as coming within the area of classroom management[3]. The creative teacher will also have skills related to those which have

[3] Classroom management is an often neglected area of teaching, without good classroom management, however well a teacher knows the subject matter learning is likely to be less efficient than it could be. However the term itself carries with it something of the concept of super organisation where everything is highly controlled and there is little room for creativity or flexibility. We prefer to see it as the skill of organising the time and all the resources available to accommodate both efficient learning and to create positive and creatively stimulating environments.

been linked with creativity. For example, flexibility, open mindedness, and the ability to generate and accept new perspectives, both from the point of view of the teacher and in her students. The other vital component for creative teaching is the strong belief that there is a place for creative teaching, with the need for the teacher to be open and ready to take on board all that this concept implies. More importantly it means putting into practice those beliefs, to accept the demands which creative teaching imposes and at the same time to have the drive and the motivation to carry it out.

If teachers see no benefits in teaching creatively and are deeply entrenched in traditional, highly controlled teaching situations they may see little point in incorporating creativity into their teaching. Such teachers may feel threatened by the apparent relinquishing of control they see implicit in more flexible creative ways of teaching, and be daunted by the additional workload that creative teaching might seem to imply and experience no desire to move towards more creative teaching.

By contrast there are certainly teachers who tend by nature to be more innovative and flexible, who wish to bring more creativity into their teaching, and who find it difficult, frustrating and limiting to work within a closely controlled teaching system where each step of the way is set down is imposed from above and prescribed in advance. However the situation is clearly not one or the other, and there will inevitably be teachers whose interest in creative teaching lies somewhere between the two extremes.

The factors which make up the whole picture are clearly complex and will involve elements such as: the genetic make up of the individual as characterised through personality traits, the upbringing and parental influences in the formative years, the effect of education systems and the individual teachers within it who one has been taught by and influenced by. Other aspects such as personal learning styles, and tendencies towards specific ways of thinking and processing material, which may be influenced to some extent by a tendency to left or right brain hemisphere dominance may be influential, as indeed may the type of intelligence one tends to predominate in[4]. Yet as many writers suggest, creativity is not an ability or a talent that some people possess, while others do not. The literature overwhelmingly demonstrates that there are degrees of creativity and that everyone has the potential

[4] Gardner has viewed human intelligence as being made up of different intelligences. Rather than the traditional way of viewing intelligence as being shown through one's linguistic or mathematical – logical abilities. A view of Gardner's Multiple Intelligence theory and its relevance for creative teaching is looked at in Section III Part 4.

to develop their creativity to a certain extent. It may be that those who see no need or desire to be more creative have been influenced by their experiences at home, school or in institutes of further education. All these factors will bear on one's perceptions of creativity and its relevance, or not, in teaching and in one's desire to incorporate creativity into one's teaching. Thus **motivation** is a key factor, motivation to move out from the tight control and fixed established patterns of teaching towards more flexible, innovative and creative ways of viewing and carrying out the practice of teaching.

The three elements we have briefly outlined above, skills related to teaching, skills related to creativity and the need for creativity to be seen as an important driving force both personally[5] and within the ambit of teaching and learning situations show parallels to key elements in Amabile's creativity componential creativity model and which are described by Amabile (68) as: Domain Relevant Skills, Creativity Relevant Skills and Task Motivation

1.2.1. Domain relevant skills

Include:

- Knowledge about the domain
- Technical skills required
- Special domain relevant skills

These depend on:

- Innate cognitive abilities
- Innate perceptual and motor skills
- Formal and informal education

[5] This raises some interesting questions as to how much personal creativity influences and runs over into one's teaching. Rogers has suggested that one of the key elements good teachers, who are facilitators of learning, need to demonstrate is ' authenticity ', which Rogers sees as 'being oneself', that is not assuming a role in the classroom which is not congruent with one's normal way of being. It is much easier to imagine a person who demonstrates creativity in their personal life as carrying that over into their teaching, and difficult to visualise a person who is very set in their ways being able to assume the role of a creative teacher within the classroom..

1.2.2. Creativity-relevant skills

Include:

- Appropriate cognitive style
- Implicit or explicit knowledge of heuristics for generating novel ideas
- Conducive working style

These depend on:

- Training
- Experience in idea generation
- Personality characteristics

1.2.3. Task motivation

Includes:

- Attitude toward the task
- Perceptions of own motivation for undertaking the task

These depend on:

- Initial level of intrinsic motivation towards the task
- Presence or absence of salient extrinsic constraints in the social environment
- Individual ability to minimise extrinsic constraints

Amabile's componential framework of creativity describes the elements of creativity as manifested in individuals of outstanding creativity, nevertheless

> It is assumed that there is a continuum from the low levels of creativity observed in everyday life to historically significant advances in science, literature and the arts. In contrast to popular views of creativity as a discrete entity, this assumption implies that it is possible for anyone with normal cognitive abilities to produce work that is creative to some degree in some domain of endeavour. (69)

Domain relevant skills are formed by,

> The individual's complete set of responses from which the new response is to be synthesised, and information against which the new response is judged. This component can be seen as the set of cognitive pathways for solving a given problem or doing a given task. Some of those pathways are more common, well practised, or obvious than others, and the set of pathways may be large or small. The larger the set, the more numerous the alternatives available for producing something new, for developing a new combination of ideas. (69)

This is reflected in one's openness to the forging of links and connections and in creating new neural connections in the brain. The application of general principles drawn from different areas may be of greater utility than specific and narrowly applicable collections of facts, giving the person concerned more possibilities and opening the network of possibilities in the searching of the brain for solutions.

In creativity - relevant skills lies the difference between a competent and skilled piece of work or product and a creative product. For however competent or high the domain related skills and the degree of motivation necessary, "an individual will be incapable of producing work that will be considered creative if creativity relevant skills are lacking" (72). In Amabile's view the creativity relevant skills are dependent on three main components:

- Cognitive style
- Knowledge of heuristics
- Work style

1.2.4. Cognitive style:

This component requires a cognitive style characterised by a facility in understanding complexities and an ability to break out of set patterns of thinking when challenged with problem solving. Once again we rely draw on Amabile's collection of features of cognitive style, and their relevance to creativity and later examine them from the point of view of creative teaching.

a) "Breaking perceptual set": this refers to the ability to break out of fixed patterns of thought or 'functional fixedness'[6]

b) "Breaking cognitive sets": exploring new cognitive pathways[7].

c) "Understanding complexities": the appreciation of and facility for working with complexity, is said to be related to creativity in some areas of endeavour

d) "Keeping response options open as long as possible": some researchers view the ability to avoid foreclosure of alternative as essential for scientific creativity (Kuhn 1963). Others including Getzels & Csikszentmihalyi (1976) have found that artists, who approached their work without a definite plan, tended to produce more creative paintings. We would add that an original artist can never entirely predict the outcome of his work, even with a plan, the unpredictable will emerge and require the artist to respond accordingly.

e) "Suspending judgement ": One well-known technique for generating ideas is brainstorming. The claim is that it is important to generate ideas first, and only later should any type of selection process occur. Early selection or valuation of ideas can restrict the number and quality of ideas and pre-exclude some for their apparent unsuitableness, frivolity, while the later consideration of some of these seemingly unfeasible ideas may in fact trigger off useful ideas even if the idea in itself is not viable.

f) "Using 'wide' categories"; it seems that individuals who organise or categorise information in 'wide' categories as compared to 'narrow' ones and who are thus able to see the connections between seemingly diverse pieces of information, may be more likely to produce creative works and responses. (Cropley 1967). One of the aspects we discuss as being relevant to creativity is the concept of interconnection[8], we see this as an important aspect, for in keeping our minds open to possibilities from areas not directly related to teaching, or from different areas[9] of teaching can provide insights which may well be applicable and rewarding in the area of teaching foreign languages.

---

6 See our discussion on breaking out of fixed patterns of thought or 'functional fixedness', Appendix 12 and the Duncker's experiment in Appendix 12.2. See also a discussion 'Stuck teaching' in Section IV, Part 4.

7 One key aspect of Neuro Linguistic Programming with its relevance for improving human performance in a wide spectrum of life, is the emphasis on just this breaking of cognitive sets. If something doesn't work and we using the same approach and still we reach no satisfactory solution we need to try something different. This of course seems obvious but it also seems to be a natural tendency for many people to carry on in the same way yet in the hope that a solution will be found.

8 See Part 5.8. of this section for a discussion in the importance of interconnections for creativity

9 Examples of areas which can be sourced to provide new insights, perspectives and even specific activities which might lend themselves to the area of TEFL, are of course endless. Some examples are some aspects of Neuro Linguistic Programming, Yoga, J. Suler's Clinical Psychology Web Pages: http://www..rider.edu.users/suler/tcp.html

g) "Remembering accurately": it has been proposed (Campbell, 1960) that people who can code, retain and recall large amounts of detailed information will probably have an advantage in creative performance. Amabile (73) mentions Pollert, Feldhausen, Van Mondfrans & Treffinger (1969) as providing some empirical evidence for this.

h) "Breaking out of performance 'scripts'": Amabile (73) has proposed that domain relevant skills include performance "scripts" or "algorithms". These are set sequences of rules or procedures that must be followed in solving a problem or performing tasks and has suggested that it may be important for creativity to be able to break out of well-used and tried and tested procedures from time to time. If performance "scripts" are used they should not be used uncritically but re-examined and perhaps adapted or changed. On a practical, day to day basis in our personal lives we fall into regular use of performance scripts, in teaching too. These patterns are useful and economical on our time and energy. But it is in the ability, at least from time to time, to break out of these patterns that creative responses are more likely to be generated.

i) "Perceiving creatively": among others Koestler (1989) has suggested the importance of seeing things differently from the way most people see things. This is sometimes seen as an innate quality, but it has also been suggested that it is a faculty that can be developed. The ability to take advantage of 'serendipity' and seeing the connections of chance findings may fall within this category.

1.2.5. Knowledge of heuristics

Amabile suggests that the creative-relevant skills component also includes a knowledge of heuristics. A heuristic could be considered as a general rule that can be of aid in approaching problems or tasks. Newell et al (1962: 78) define a heuristic as "any principle or device that contributes to a reduction in the average search to a solution". At the present time countless books and publications[10] of all kinds, both serious and aimed at the more popular market, are directed at improving one's creativity and these inevitably include ideas for generating novel ideas.

A related area is the use of metaphor. This has seen something of a revival removed from the area with which we more generally associate the use of metaphor, for

[10] From the wide range of possibilities available we will mention here, *'The Scamper Model'*, the lateral thinking of de Bono (1976) and Von Oeck's, *Whack's on the Side of the Head .* A collection of techniques for developing creative thinking is offered in Appendix 12.

example in creative writing. Metaphors can provide a possible way of finding solutions and generating new perspectives through the trick of putting a familiar idea into a different context and benefiting from the possible insights generated.[11]

Work style:

Some of the elements that have been suggested as being conducive to creativity within this area are:

An ability to concentrate effort and attention for long periods of time

An ability to employ 'productive forgetting', when necessary; that is the ability to abandon unproductive search strategies and temporarily put to one side problems that are difficult to solve.

Persistence in the face of difficulty

High energy level, willingness to work hard and an overall high level of productivity.

1.2.6. Personality Traits

In addition, as one would also expect, personality traits[12] are important factors within the area of creativity relevant skills. Although research has produced sometimes contradictory results there appear to be a limited set of traits that repeatedly figure in summaries of empirical research. into the personality traits of creative people. Most notably these are:

- A high degree of self discipline in matters concerning work
- An ability to delay gratification
- Perseverance in the face of frustration
- Independence of judgement

[11] See Section IV Part 3, students learning journals and Section IV Part 2: Lesson planning for some discussion on the use of metaphors in teacher training.

[12] In a study at Berkeley Institute of Personality Assessment (Gardner 1993), "creative" architects who were compared to their less creative colleagues, showed a greater incidence of personality traits like independence, self-confidence, unconventionality, alertness, ready access to unconscious processes, ambition and commitment to work. However, as Gardner states, "it is not clear whether people who already exhibit these characteristics become creative or whether, as a result of acknowledged creativity, people come to exhibit such positively tinged traits".

- A tolerance of ambiguity
- A high degree of autonomy (Davis & Rimm, 1977; Feldman, 1980; Golann, 1963; Stein, 1974; Taylor & Barron, 1963)
- An absence of sex role stereotyping (Biller, Singer, & Fullerton, 1969)
- An internal locus of control (DuCette, Wolk & Friedman, 1972)
- A willingness to take risks (McLelland, 1956; Glover, 1977; Glover & Sautter, 1977).
- A high level of self-initiated, task-oriented striving for excellence (Barron 1963; Chambers, 1964; MacKinnon, 1965; Roe, 1952).
- Reliance upon self and freedom from external controls
- Complexity of personality, tendencies of thought and action that are segregated in most people, together with the ability to express a full range of traits. These traits are potential in all human beings but in most cases we tend to develop some traits and allow others to atrophy. (Csikszentmihlayi (1997:37).

There seems to be some evidence that people who work closely with those deemed creative also seem to exhibit a similar profile of traits, an area of considerable interest to the study of creative teaching when a desired outcome is the fostering of creativity on the part of students, but Amabile points out that "a certain interpersonal detachment is required", for example between teachers and their students may be helpful as it encourages "increased independence and relative lack of external control"(195) that may accompany such relationships.

One main characteristic that consistently appears in discussion on creativity is that of 'intrinsic motivation'. Koestler (1964, 1989) speculated that the highest forms of creativity are generated under conditions of freedom from control. In such conditions the mind is free to play and more easily access the intuition and less conscious ways of thinking. Koestler saw regression to playful levels of thought as being vital to creative production. Earlier Carl Rogers (1954) had speculated on the importance of reliance upon self and freedom from external controls in creativity. One of three''inner conditions' that he considered necessary for creativity was that there should be an internal locus of evaluation. This type of evaluation involves primarily, self-evaluation of one's work, where the evaluation of others is only a secondary concern. Rogers proposed the absence of external evaluation as an environmental condition in the fostering of creativity and in his later work maintained his views on

the need for reliance on self and self evaluation in education (1983) This, according to Amabile is a crucial factor in creative production. However not all researchers agree. Amabile sees this trait as being characterised by independence and an absence of conformity in thinking and dependence on social approval. Other aspects which are characteristic of this independence have shown that conformity to social pressure is negatively related to creativity, and that social pressure to conform can have detrimental effects on creativity. Particularly relevant for our study is Amabile's suggestion that social factors can have as strong an influence on creativity as various "uncreative" personality traits can. This is important for it seems to suggest that creative teaching and creativity observed by students in their teachers may go some way in overriding the natural tendencies of some learners to be less creative or inflexible in their thinking and perception of the world.

For our area of study it is interesting to note that while some creativity relevant skills are dependent on personality characteristics and others on social factors, it appears that some of the skills necessary for creativity can be directly taught through training. Research on areas like brainstorming (Osborn, 1963) and synectics (Gordon, 1961) and research on the "creative personality" (e.g. Barron, 1955, Cattell & Butcher, 1968; Gardner, 1993; MacKinnon, 1962; Wallach & Kogan, 1965) points to ways in which creativity relevant skills might be developed.

When individuals gain experience in, for example 'idea generation' and different ways of seeing, the ability to see things from different points of view and so on, then they may devise their own strategies for creative thinking.

1.2.7. Intrinsic Motivation

From the point of view of our inquiry into creativity in teaching, those findings that are most relevant, are those which suggest that creativity is most likely to occur under conditions of intrinsic motivation. In situations where what a teacher does, approximates the criteria of 'creative teaching'[13] and where teachers may decide to embark on their own initiatives, upon a process of personal growth or development which has positive repercussions on their teaching, rewards from the system within which they work may not be forthcoming or rewarded in any way. The reward comes from the feeling of personal satisfaction derived and in the possible outcomes for their teaching.

[13] For a suggested framework within which creative teaching might function Section II Part 6.

At the present time there is a growing awareness of teacher development and move towards more creative teaching may be encompassed within this area. Conferences and symposiums related to areas of teaching and education offer talks and workshops, courses on teacher development are run for those interested. Yet unlike teacher training courses which may bring the reward of certificates or diplomas which in turn may bring more professional recognition and remuneration, teacher development focuses on the personal satisfaction, growth and the developing awareness and a deepening knowledge of process, that are brought to one's teaching. As it is those who are truly interested in making their teaching more effective and the learning processes of their students more rewarding and successful, who embark on such processes, the reward comes in the enrichment of their and their students' experience, and not from the acquisition of some title or diploma which proves their attendance on some course. The motivation to embark on such processes and to maintain an ongoing process of personal and professional growth and development is autotelic; it is a process that is rewarding in and of itself.

Crutchfield (1962:121) claimed that conformity and creative thinking were unlikely companions, "conformity pressures tend to elicit kinds of motivation in the individual that are incompatible with the creative process". He further claimed that conformity pressures could lead to extrinsic "ego-involved" motivation in which the creative solution is a means to an ulterior end, in sharp contrast to intrinsic, task-involved, motivation, in which the creative act is an end in itself.

Intrinsic motivation seems closely related to what Csikszentmihalyi (1988) has described as "flow". "Flow" or "optimal experience" is described as a state of effortless movement of psychic energy. Amabile's componential framework for creativity puts much emphasis on the aspect of intrinsic motivation, seeing it as positively conducive to creativity, while extrinsic motivation is generally seen as detrimental.[14]

As we have suggested and has been implied in the feedback we collected from students following teacher training courses[15], creative processes are not necessarily effortless, although sometimes they do engender states of deep and pleasurable involvement. Creative processes often imply considerable struggle and hard work, and while freedom from external pressure can be conducive to creativity, internal

[14] Anecdotal evidence together with biographical and autobiographical evidence seems to point towards this. Amabile provides illuminating examples of the deep conflict of interest experienced in outstandingly creative individuals between their own intrinsic motivation and the shift in their interests once their work became recognised and external pressures were put on them e.g. Charles Dickens, Sylvia Plath.

[15] See Discussions on Creativity in section IV Part 1

discipline and effort are basic requirements for many creative processes. The challenge of working within certain constraints often provides the necessary framework within which one has to apply one's own internal discipline.

Within the area of teaching the challenges imposed by external demands of education authorities, examinations and administrative tasks, discipline problems and the consequent and ever more common phenomenon of teacher "burn out" can pose seemingly insurmountable problems even for the most motivated of teachers.

1.3. How might the componential framework of creativity be applied to creative teaching?

The componential framework of creativity, combining the three interdependent and interconnected elements of domain-relevant skills, creativity-relevant skills and task motivation, provides a framework for creativity which can equally well apply to different levels of creative endeavour ranging from the creative processes of outstandingly creative individuals to those of the more everyday variety of creativity. In addition, we suggest it also provides a useful and productive framework through which to clarify and direct our thinking towards the processes implicit in creative teaching and moreover, and it encompasses the concept we wish to explore, "teaching as an art".

Amabile has claimed that the componential model is the same for both high and low levels of creativity. That is, the same principles apply, whether one is talking about outstanding levels of creativity or lower levels. Thus we suggest that this model could well be applied to creativity in teaching. While her claim that the level of creativity of a product or a response will vary as a direct function of the levels of the three components seems perfectly compatible with the concept of creativity in teaching, we must bear in mind that, as we have discussed earlier, the end product of creative teaching is not so clearly definable.

Indeed in creative processes where some end product does result, even then the criteria for defining creative outcomes is not necessarily a straight forward issue[16]. However the assertion that every component (domain-relevant skills, creativity-relevant skills and task motivation) must be present if some recognisable level of

[16] Amabile devotes an entire chapter to, ` A Consensual Technique for Creativity Assessment', describing the complexities of establishing the criteria and the procedures for assessing the degrees of creativity in areas including child, adult art and also verbal creativity

creativity is to be produced, does, we consider, hold true in spite of the difficulty in defining the outcomes of creative teaching.

Amabile's componential model of creativity proposes a series of suggested steps or stages brought into play in dealing with a task or a problem to be solved. We will outline briefly these 'steps' and then we follow up each step with our own observations and comments on those steps from the point of view of creative teaching.

Step one

The first stage is in the presentation of the task or problem to be solved. Amabile suggest that the individual will have a high level of intrinsic motivation if the problem requiring a solution is self imposed and will thus be sufficient to engage the problem solving process.

The problem or task to be solved may of course be imposed from "outside" by another individual and while one might find it sufficiently interesting to be intrinsically motivated to work on it, research seems to show that extrinsically imposed problems are not necessarily intrinsically interesting to the individual. Getzels (1975) and Csikszentmihalyi (1976) have suggested that 'discovered problems' are more likely to be solved than are"presented problems'. Theorists like Campbell (1960 and Souriau (1881) have argued that "problem- discovery" is an important part of much creative activity.

Comments and observations relevant to 'step one':

The 'task' or 'problem' may, in the case of teaching be posed by someone apart from the teacher herself. For example some restrictions or requirements may be set by other authorities and the teacher has to find a way of incorporating them into the framework of their own teaching, or a student may pose a problem which demands a creative solution, either implicitly or explicitly. A teacher concerned with seeking workable yet innovative solutions may take these on board as part of their professional responsibilities. Yet it may well be that, as research shows, elements which arise in a class or in a course of lessons and which the teacher identifies for herself and which provide personal challenge in the ongoing evolution of their teaching might be seen as intrinsically more motivating to solve than those imposed elements imposed from outside. These internally imposed questions might be construed as discovering, if not exactly 'problems' then aspects, techniques or procedures which

may make the teaching-learning process more interesting, challenging, efficient, and even creative. They are, we would suggest the type of challenges teachers pose to themselves as a result of their own reflective processes on their teaching and what happens in their classes.

Step two:

This can be seen as a kind of pre-stage to the actual generation of responses or solutions, when a store of information is built up or reactivated related to the problem or task. This can include knowledge response algorithms for the domain in question. If domain-relevant skills are thin this stage may take some time, but if domain skills are sufficiently rich to provide a set of possible pathways to explore then reactivation of this store of information and algorithms may be almost instantaneous. This stage could be considered as a warm up stage.

Comments and observations relevant to 'step two':

It is worth bearing in mind that decisions which teachers take can be those types of decisions which have to be made on the spur of the moment in response to a situation which arises and which demand an instantaneous response on the part of the teacher. They can also be those types of responses which may be set aside, either for a few minutes, or for longer periods of time, until there is the opportunity to reflect on the problem or the question and to come up with a solution. A response may be found or not and may come about by a conscious or an unconscious process or more likely, a combination of both, in a process very similar to 'incubation'.[17]

On other occasions it is necessary to devote more time to reflection and both conscious and unconscious time to the processing of the question in hand. At this

[17] In our own experience we are aware of all these ways of responding to situations that need resolving or questions that need answering in our classroom teaching. We are convinced that all teachers who allow a degree of flexibility and freedom in their classrooms will also be able to recall similar experiences. They will recollect the different speed and the degree of thought which is required to come up with responses. Sometimes we respond seemingly instantaneously, other times bombarded by hubbub and enthusiastic activity in the classroom, a response to a student's question or a situation that has arisen may not instantly come to mind. In this type of situation, we have been aware that consigning the question to the unconscious mind, (not necessarily in a conscious way, but because the conscious mind is fully occupied with other things going on in the classroom) does sometimes produce a suitable response, within a few minutes even though we were not consciously working on finding the answer

stage if domain-relevant skills are thin this may take some time, but if domain skills are sufficiently rich to provide a set of possible pathways to explore then reactivation of this store of information and algorithms may be almost instantaneous.

This raises the question of to what degree the creativity of a teacher is influenced by the amount and quality of experience a teacher has. Is it possible for instance for a newly qualified teacher, and therefore probably a relatively inexperienced teacher, to have sufficient 'domain-relevant' skills to be able to activate, either instantly or after a period of reflection as many possible responses as a teacher with more general experience in the area? We would agree that within a certain field, in this case teaching, that even with when 'creativity-relevant' skills are present the degree of relevant experience a teacher has, is, as Amabile has claimed a vital ingredient.

The implications from our own observation of teachers in training and participating in teacher training courses are that the more relevant experience a teacher has, will influence the degree to which her teaching could be described as creative. Of course, accumulated teaching experience does in no way mean that a teacher will necessary be creative in their approach to teaching. We have already seen how easily habits are formed and patterns are set, in life as in teaching. Rather we emphasise that along with accumulated experience teachers can acquire new skills, rich repertoires of techniques, and ways of thinking about and dealing with events as they arise in the classroom.

Within more recognised domains of creative endeavour, for example for an artist, relevant skills might be related to knowledge of effects of colour, colour theory, shape, form, perspective and ways of expressing one's ideas visually, which would involve ability and skill in mark making and knowledge about and skill in using media. For teaching we see domain related skills as including knowledge of the subject to be taught together with an awareness of different methods and approaches, of different techniques and activities and a willingness to draw upon them, to synthesise, to try out, to experiment and experience. In addition a whole variety of practical skills necessary for good classroom management relevant to the different teaching situations one has to work in and also an awareness of elements like learning styles, brain theories, the ability to create confidence building learning environments etc. To know the content of the subject to be taught is not sufficient one also has to be deeply committed to the importance of the teaching / learning process.

Step three:

It is at this stage where the novelty of the product or response is determined. Here the individual generates response possibilities by searching through the available pathways and exploring features of the environment that are relevant to the task at hand. Both creativity relevant skills and task motivation play a role at this stage. The individual's existing repertoire of creativity relevant skills will determine the flexibility with which cognitive pathways are explored, the attention given to particular aspects of the task and the extent to which a particular pathway is followed. Factors like 'temporary suspension of critical judgement' and 'decisions to keep response options open' are important here in not closing off possible lines of pursuit too early. Task motivation, if it is intrinsic rather than extrinsic, can positively add to the existing repertoire of skills a willingness to 'play' with this particular task- to take risks, and to attend to aspects of the environment that might not be obviously relevant to attainment of a solution.

Comments and observations relevant to 'step three':

This step focuses on creativity relevant skills and task motivation. If teaching is to be creative then it is necessary for the teacher to possess at least to a certain degree, skills we have discussed earlier, for example, being able to "breaking perceptual sets" and "perceiving creatively'. Suspending judgement is necessary and as in techniques like brainstorming, it is important that as many options as possible should be generated in a non-judgmental way. From the point of view of teaching, this would seem to suggest that the teacher generates ways of dealing with a task or a problem, keeping an initial open mind and not instantly ruling out possible solutions. While there will always be constraints on what a teacher can actually do in a classroom[18], in our experience teachers are often too ready to write off an activity as unsuitable, unworkable, impractical for a variety of reasons, which may reflect their own preferences, their lack of conviction, confidence, or their satisfaction or acceptance of the status quo. Similarly keeping the mind open to 'wide' categories' and 'breaking cognitive sets', implies a degree of flexibility, and

[18] In a curious thread of discussion on the TEFL List TESL-L@CUNYVM.CUNY.EDU on where should teachers stand, or literally place themselves in the classroom, we were made aware that the fact that we teach from all points of the room, moving around as and when the situation or the activity requires on a kind of automatic pilot mode, not giving the matter much or indeed any conscious thought, where it seems this is not the case for all teachers. Some may remain firmly anchored behind their desks out of preference others may it seems be obliged to do so by the system in which they teach. Respect issues and maintaining a distance may be involved here.

an ability to view the task or the problem to be solved from different perspectives and an ability to generate creative responses to situations which arise in the classroom.

Step four:

Domain-relevant skills come into play at this stage where the ideas and possibilities generated in the previous section need to be tested for correctness or appropriateness against the knowledge and assessment criteria included within domain-relevant skills. It is at this stage when the product or response is rated as useful, correct or valuable, which together with the aspect of novelty, is essential for the product to be considered 'creative'.

Step five:

At this stage the decisions have to be made on the basis of the test performed in the previous stage. If the product or response has been passed perfectly and there is a complete attainment of the original goal, then the process terminates. If there is complete failure the process will also terminate, but if there is some progress towards the goal, if at least a reasonable response possibility has been generated then the process returns to the first stage where the problem is once again posed[19]. It is worth noting that whether there is failure or success or partial success, information gained from the experience will be added to the existing repertoire of domain-relevant skills. Also if task motivation remains high enough then another trial will be attempted perhaps using information gained from the previous trial, but by perhaps reframing the problem in different way. If task motivation has dropped below some critical minimum, the process will terminate.[20]

[19] Within the area of Neuro Linguistic Programming, Dilts, Epstein & Dilts (1991: 377) suggest a mental strategy for creative processes which they call T.O.T.E. and which is based on a basic feedback loop . The letters T.O.T.E. stand for Test- Operate-Test – Exit. The T.O.T.E concept maintains that all mental and behavioural programmes revolve around having a fixed goal and a variable means to achieve that goal. We look at this strategy in more detail in another section.

[20] For some reflections on this aspect within teaching and learning see Section IV

Comments and observations relevant to steps four and five:

Most discussions on creativity involve evaluation of an end product, which centre around the idea that the product or response will be judged as creative in that it is both novel, appropriate, useful, correct and a valuable response to the task at hand, and that outcome is reached through is heuristic rather than algorithmic"[21] procedures can, similarly apply to a process like teaching.

The possible outcomes of creative teaching are not easy to define in specific terms and thus evaluation too is not a straightforward process (nor of course is it an easy task to evaluate the creativity of a response or an end product in more obviously creative area like art, literature or music). In the teaching process and in assessing whether a technique, approach, or activity has resulted in a positive and creative outcome the teacher will most often have to rely on their own perceived feedback and on the responses of their students which might be arrived at in a variety of ways. These may include personal reflection and collecting feedback from students. To give just two examples, will the teacher decide to forge ahead with similar approaches in future lessons, adapt and modify them and try them again or decide to leave them for a later date or another class or abandon them altogether.

1.3.1. Feedback and interaction between components

In our suggested model for creative teaching we have stressed the vitally important roles of feedback and interaction[22]. Within the componential framework for creativity, Amabile stresses the role of success, partial success, or failure on task motivation,

---

[21] Heuristic and algorithmic procedures:

A solution reached by an algorithm is not creative as it follows a pre- defined set of steps algorithmic tasks are those for which the path to solution is clear and straightforward- tasks for which an algorithm exists. By contrast heuristic tasks are those not having a clear and readily identifiable path to solution– tasks for which algorithms must be developed. The question here is that once a solution has been reached then an algorithm has been developed and the next time round a good solution may be found using the same algorithm but which nevertheless renders the solution not creative (according to this definition). This compares to the example we gave earlier of the artist who having once found a good and workable series of steps or procedures finishes / ends up with perhaps a good well executed piece of work but which by the above definition cannot be defined as creative. It also echoes what we have said in the same section about the process, or path to solution of a creative piece of work. A creative piece of artwork for example, involves continual interaction and feedback between the artist and the work and the chosen media, thus ruling out an accurate prediction of how the finished work will be. The path to the solution is therefore heuristic. By definition algorithmic tasks have a clearly identified goal, but heuristic tasks might or might not have a clearly identified goal, the important distinction is that for heuristic tasks, the path to the solution is not completely straightforward. In addition as Amabile (31) points out in many cases heuristic tasks do not have clearly defined solutions or goals, and it is part of the problem- solver's task to identify them.

[22] We discuss feedback and interaction in creative teaching in section II, part X and in section IV

pointing to the feedback cycle which is set up, which affects how future encounters with similar tasks will be embarked on. The theory is that if one is successful, then motivation for similar tasks should increase. The element of challenge is an important factor in intrinsic motivation (Berlyne, 1965; Csikszentmihalyi, 1975; Malone, 1981). As most would recognise from their own experience, a challenge followed by a successful outcome is important in encouraging one to take another risk, or try something out in a similar vein. If one fails, intrinsic motivation usually decreases and subsequent unsuccessful attempts may result in total lack of motivation and consequent abandoning of the task. In the case of partial success, the problem solver may experience increased intrinsic motivation when they feel they are approaching a solution ("getting warmer"). These perceptions, or instinctive feelings, are supported by Harter's (1978) "theory of effectance motivation"[23] and backed up by social-psychological theorists like de Charms, 1968; Deci, 1975; Deci & Ryan 1980. Amabile too proposes that success, where one's competence is confirmed, will lead to increased task motivation, while failure, a confirmation of our incompetence, will lead to decreased or complete lack of motivation.

The implications for creative teaching are clear. For those who are prepared to try out innovative techniques and include a degree of creativity in their teaching, if they meet with success, or even partial success, but with the conviction that they are moving in right direction, they are likely to continue with further innovative activities. But if they meet with failure, after perhaps one or two attempts they will most likely begin to form feelings of incompetence which may result in a total lack of motivation to take further similar risks in future, opting for the security of the tried and tested. Yet those who are prepared to take risks and are rewarded with success may find set-breaking leads to increased confidence and thus an increased repertoire of creativity relevant skills and, in addition, domain-relevant skills may also be positively affected.

1.3.2. Summary

No one is creative all the time, even the most outstandingly creative people do not live their lives on a permanent high of creativity. Some writers suggest that there is

[23] This theory suggests that process outcome can influence task motivation, taking the idea that a striving towards competence is satisfied by a feeling of efficacy. According to this theory failure to master some area of endeavour will result in a decrease of intrinsic motivation and striving for competence.

a clearly identifiable ten-year cycle in the creative growth and achievements of highly creative people[24].

Although we believe that Amabile's componential model for creativity can be applied to creative teaching, the type of creativity we are referring to is not the type of historical creativity of subjects like those Gardner has studied, but the more personal and everyday variety, which nevertheless does constitute creative behaviour. Scaling down the premise of Gardner's ten-year rule might mean that as we have suggested, experience is an important, and indeed vital element in the evolution of a teacher moving towards a creative approach to teaching. While ten year cycles may have been identified in some highly creative people, this points more to the fact that peaks and troughs in producing creative responses are normal. There may be times when we seem to be in a creative flow type state and others where we simply get on with the task in hand without producing any particularly creative responses or ideas.

It is worth bearing in mind though, that one of the requirements of cognitive style necessary for creativity seems to be "breaking perceptual set". As many writers including Koestler (1989) & Claxton (1997) have pointed out this is not such an easy thing to achieve and paradoxically sometimes the acquisition of knowledge and experience can be counterproductive to "perceptual set breaking". Gardner (1993) points to the need for experimentation in his study of the creative life of Pablo Picasso and suggests a parallel of gifted children in the area of music,

> For every young child who experiments with the musical cannon, who "decomposes" the music that he or she is supposed to perform, there are dozens who simply play as they are taught to play and who never even consider adopting a divergent thematic or rhythmic course. (143)

This seems to hold true for many people in different areas of their lives and includes many teachers who having been trained to teach in certain way, or who recycle unthinkingly the teaching methods which they were subjected to, never thinking to challenge or change the ways they have become used to. A remark reputedly made by the composer Berlioz about the once prodigious composer Saint-Saëns goes, "he knows everything but he lacks inexperience". A seemingly curious comment in

[24] Howard Gardner (1993) in his in-depth studies of the lives of outstandingly creative people, claims to have identified a characteristic 'ten-year rule' where significant breakthroughs or reorientations seem to occur at approximately decade long intervals after an initial decade in which the skills of the trade have been mastered. He suggests that the creative individual seems to make a big breakthrough after ten years work. These studies involve the lives of exceptionally creative people like Freud (83-84, Stravinsky (214), T.S.Eliot (247-8) & Martha Graham (298)

the light of what we have been saying about the importance of experience in moving teachers towards creative teaching, but which has its relevance for teaching. The teacher who feels they know everything there is to know about teaching and who therefore remains comfortably and indefinitely treading the same paths, following the same perceptual sets never thinking to break them nor risking something in the taking of risks and as a consequence never learning from the possible learning situations that might be generated for them by putting themselves, for a while at least, in the role of the 'inexperienced teacher'.

Most teaching situations of course would not allow for constant creativity, even if a teacher had the energy and will for it. We have already discussed how creative teaching might be construed as an unnecessary addition by some, by others as constituting a threat, even without considering the arguments against creative teaching which have been suggested by students[25]. Teaching demands a degree of stability and predictability. Students need a reliable framework against which to work, set procedures need to be applied. Too much creativity could be unsettling and extremely demanding on teachers and students too.

The concept of creative teaching that we suggest, intertwines several component threads:

- The ability of the teacher to react suitably but creatively to situations that arise in the classroom
- The ability of the teacher to use and develop activities and techniques which from time to time break the established patterns.
- The ability of the teacher to provide opportunities for students to respond innovatively, individually and creatively for at least some of the time in classrooms, and which as a result help to encourage and develop creativity, flexibility and imagination on the part of students.
- The continuing interest and motivation of teachers to keep their teaching evolving and developing, and viewing teaching as a learning experience too.

Creativity in teaching needs to be set against the backdrop of a reassuring, non threatening classroom environment where the teacher can recourse to creative techniques and activities from time to time, where the students feel at ease and

[25] See Section IV, part 6

ready to accept innovative activities and where they too are given the opportunity and encouragement to respond creatively th II.2. Creativity, motivation and 'flow' states.

2. CREATIVITY, MOTIVATION AND 'FLOW' STATES

We finished the previous section laying particular emphasis on the importance of motivation in creative processes and by extension in the process of creative teaching. In this section we look at some aspects of motivation which we consider to be important elements in teaching and learning in general and in processes where personal and investment and creativity is a factor. We have focused much of our discussion around the concept of intrinsic motivation seen from the perspective of Csikszentmihalyi's early research up to more recent times, and into which we have incorporated our own perspectives, observations and implications for creative teaching.

When considering any creative process, the factor of personal involvement is a key factor. Within the concept of 'a creative process' we would include a wide and diverse range of activities and processes which in turn give rise to a wide and diverse spectrum of outcomes. Let us move away for a moment from the more obvious and acclaimed examples of creativity and consider a few examples of personal involvement and creativity in which the person involved is deeply engrossed and happily engaged in the task in hand, to the exclusion of all else.

One such process that comes to mind is apparent when someone who really enjoys cooking, is preparing the necessary ingredients and utensils in readiness for the preparation and cooking of some recipe, and then continuing with the necessary steps to produce the end product. Another could be a person designing a personalised greeting card for someone special to them, they may or may not be particularly gifted artistically but are bent on producing something which is individual and which suits the interests of the person they will give it to. A third could be that of a child lost in a world of his own, creating an imagined scenario involving little or no props, save a few seemingly random articles. The 'game' may be solitary or may involve another or other children who have entered within the understood parameters of the 'game'.

In each of these three examples outside observers may, if they take the time to observe, note a high level of involvement and apparent dedication to the task in hand, on the part of the involved person. If the observer does not share the same

interest in the subject and is unable to enter the world of the other person he may be at a loss to understand just how they can be so absorbed in their task to the exclusion of all else, and moreover, a task which may have been self imposed.

Closely linked to this type of personal involvement is another element without which the involvement may be fleeting and ephemeral, and difficult to maintain. That element is motivation. In the three examples we have given above, the motivation each person experiences is clearly of the self-generated variety. It comes about because the experience for each of those involved is "autotelic" that is, it is rewarding in, and of itself. It is therefore an intrinsic type of motivation.

Interest in intrinsic motivation grew in the 1970s. Researchers like Lepper & Green (1978), Deci (1972 & 1975) and Decharms (1976 & 1978) were primarily interested in intrinsically motivated behaviour, from the point of view of what made it happen and what its consequences were. By contrast Csikszentmihalyi turned his interest and research to what the motivated person was actually feeling and experiencing when they were intrinsically motivated. More especially the concern was about the quality of subjective experience that made the behaviour intrinsically rewarding. One aim was to find out how intrinsic rewards actually feel and why they are rewarding[26] and to find out how people experience this state when an activity is going particularly well. Such concerns have been an ongoing concern in the work of Csikszentmihalyi (1975b.1976, 1982, 1988) The major findings to emerge were to identify, across those widely diverse activities, common experiences that the informants felt were autotelic and intrinsically motivating for them. Csikszentmihalyi and his team chose the word 'flow'[27] to describe this experience. They also refer to it as 'optimal experience'. Apart from finding out what it felt like to be in a state of intrinsic motivation or''flow' they were also interested in exploring the characteristics of those activities which provided such intrinsic awards. Their main findings were that:

Despite the obvious difference between such endeavours as climbing rocks and writing music, a common set of structural characteristics was found to distinguish those patterns of action that produced flow from the rest of everyday life. The

[26] To answer such questions over two hundred people who were deemed as being familiar with intrinsic rewards were given in depth interviews. These two hundred included people who often spent large periods of time in strenuous activities for which they were not paid and received little recognition, for example; amateur athletes, chess masters, rock climbers, dancers, high school basketball players and composers of music.

[27] The term flow,' had been used as a metaphor by some respondents to describe their feelings while involved in their favourite activities, and the Anglo- Saxon word seemed preferable to the more clumsy, if more precise term autotelic experience' and is now accepted and in relatively common use for describing a situation when things are working well and are best not interrupted.

major implication of this aspect of the study was that not only play, leisure, or creative pursuits such as painting, make flow happen. Intrinsic rewards can be built into any activity, including work. (1988:8)

The findings of the earlier study were presented and discussed in *Beyond Boredom and Anxiety* (1975) which had important repercussions in various fields of inquiry, [28] but the one which most interests us here is the finding that, "from the point of view of subjective experience, work and play are not necessarily opposites" (8). There certainly are people who gain more satisfaction and reward (and not necessarily financial reward) from their jobs than they do from their free time and thus for them the accepted divide between work and leisure may make little sense. Another area, where for many people the balance between work and play is clearly weighted towards the former, is in the area of education, and more specifically in the area of teaching and learning.

At a time when so much emphasis in education is being put on achievement and the need to raise standards[29] both in primary and secondary education, often quite justifiably, too little attention is given to how those goals are reached. Teachers and students alike suffer from overload and excess or workload with not enough attention being devoted to the processes of achieving those higher standards. As far back as 1978, Mayers showed that the degree to which high school students enjoyed a given course predicted their final grades better than previous measures of scholastic achievement or aptitude did. In a closely intertwined process like that of teaching and learning the amount of enjoyment that teachers derive from their teaching has a great deal to do with the amount of attention students show in class. Philal (1982) showed this to be true, but not all teachers work in or are able to create teaching and learning situations that provide such positive feedback. Teachers unfortunate enough to be working in situations where everyday is a battle to maintain control in the classroom over unruly and unmotivated students who show no interest and pay little or no attention, is surely one of the most draining and demoralising of experiences. It is a situation which is causing more and more teachers to succumb

[28] For example those who study the psychological and sociological implications of free time and on the literature of play, sport leisure and recreation.

[29] The British government has put in place National Literacy and Numeracy Strategies designed to raise standards in all primary schools in England. Frameworks for teaching literacy and mathematics have been published to support these strategies. These frameworks offer detailed objectives for planning and teaching the sections of the English programmes of study for reading and writing and all sections of the programmes of study for mathematics for pupils aged five to eleven years<http://www.nc.uk.net/>

to the ever more frequent syndrome of teacher 'burnout' [30] and even to leave the profession altogether.

Yet surely there is something to be done to make endeavours of teachers and learners more rewarding. Csikszentmihalyi (12) suggests that there is much that could be done to improve the process of education by increasing the enjoyment it potentially contains, yet this consideration is so rarely a part of the school experience.

Csikszentmihalyi claimed that the most urgent applications of the 'flow' model were in school and in work situations, "where most people spend most of their lives – often in boredom or states of uneasy anxiety" (12). Whether students do in fact experience so much boredom in classrooms or if this is just a type of conditioned habitual verbal response they resort to in order to conform to what everyone else claims they are experiencing is an area worthy of research. In our own experience students and pupils at all levels of education tend to complain at some time or another that lessons are boring. From our own inquiries into creativity in teaching for this study, the word 'boredom'[31] appeared most often in students' reactions to lessons that lacked some creative spark or in the suggestion that a state of boredom may be triggered if teachers tended to follow set patterns and procedures indefinitely.

Wilson (2000) suggests that children need to be exposed to boredom in order to later be able to deal with the future and claims that we shall be ill equipped for life if we do not come armed and trained to be bored much of the time. Yet our observations of the world around us seem to inform us that this is essential human capacity which the younger generations seem to lack. He suggests that,

---

[30] Accounts of the experiences of teachers whose daily encounters in the classroom take a demanding toll on their lives are unfortunately not hard to find in any country. From the Spanish Education System comes an article by Prados Medina, A. 1999 'Estrés Laboral en Docentes' which explores this issue in some depth.

[31] Maybe the word 'boredom' is too readily and frequently resorted to. It seems it is often used as a kind of blanket term when a more precise word would better describe the feeling, but for want of one more precise the person, very often a child or young person, pulls this word out of their working vocabulary to describe some vague feeling of dissatisfaction or lack of purpose or specific desire to do something lumping them altogether under the umbrella of 'boredom'. Or it may be that we are conditioning children and young people to expect to have every moment of their waking lives excitingly occupied, so that when things are not happening they somehow equate this with a state of boredom and all too readily complain that they are bored. With so many means of pre-packaged entertainment readily available at the beginning of this new millennium, maybe children are losing the ability to draw on their own resources to amuse themselves. Computer games and other activities that bring fast gratification may perhaps be diminishing their inner reserves of personal investment and patience making them ill equipped to spend more than a few minutes on something without deciding that they are 'bored'. The Oxford Advanced Learners Dictionary defines boring as 'uninteresting, dull or tedious' and Collins Cobuild English Language Dictionary defines as boring something that is so dull an uninteresting that it makes people feel tired and often impatient.

> a human being who has only grown up with the notion that he or she must be stimulated all the time will never be able to assuage ennui in the way that we grown ups do, by walks, gardening, crosswords or the inner life. (17)

Beyond suggesting that we should learn to live with and accept boredom, the claim is that through states similar to boredom we come through them to find ourselves. It may be that if we have never been bored, an essential part of one's imagination will never have been allowed to grow. Wilson claims that stories[32], poetry, prayer and mathematics, all activities which have stretched the human race and made it appear more interesting, evolved out of its capacity to live with boredom. However not everyone is prepared or able to draw on these inner resources and in general our observation is that education systems contribute very little to developing these type of faculties. Viewed from perspectives like those of Wilson, the concept of boredom takes on a new role in the challenge to delve into one's self and thus to find the resources within us to be able to experience situations which we may never have dreamed could become absorbing for us and which might in the end provide us with flow experiences.

In the same line Csikszentmihalyi, giving the example in the school context of why a piece of homework set to all the class should be boring to some and enjoyable to others, suggests that part of the answer lies "in the personality of the students, in their ability to recognise challenges at a level commensurate with their skill, where others see only tiresome obstacles." (32)

Exploring the concept of flow states, which seem to be at the opposite end of the spectrum to boredom, Csikszentmihalyi arrived at a method of identifying flow states, which involved asking respondents to read three statements. They were assigned a score varying from 0 to 3, the maximum score of three being given to respondents who identified their experiences with all three statements. Those statements were of the following type:

- My mind isn't wandering. I am not thinking of something else. I am totally involved in what I am doing. My body feels good. I don't seem to hear anything. The world seems to be cut off from me. I am less aware of myself and my problems.

[32] Many examples come to mind here but one specific example is the prodigious imagination of the Brontë sisters, Charlotte (1816-55), Emily (1818- 48) and Anne (1820- 1849) who while living their lives under conditions which could only be described as hard and virtually isolated from society, in a tiny Yorkshire village perched in on the edge of an exposed and frequently inhospitable moor, managed to create their own private and highly imaginative worlds which fed into their writing of novels.

- My concentration is like breathing. I never think of it. I am really quite oblivious to my surroundings after I really get going. I think that the phone could ring, and the doorbell could ring, or the house burn down or something like that. When I start, I really do shut out the whole world. Once I stop, I can let it back in again.

- I am so involved in what I am doing, I don't see myself as separate from what I am doing.

Characteristics of the 'flow experience' were summarised by Csikszentmihalyi as follows:

- Flow produces harmony within the self and so attention can be invested totally in the activity in hand – this produces a merging of activity and awareness, typical of enjoyable activities.

- A loss of self awareness of self

- Sometimes a distorted sense of time is experienced, when for example, a long time seems to pass very rapidly or on the other hand when lost in a task a few minutes seem to stretch out like infinity, and one is surprised to find that the few minutes seem to have expanded.

- A feeling of being completely absorbed by the task in hand and experiencing sharply focused concentration so that there is no attention to direct elsewhere, and thus other everyday preoccupations do not impinge on one's consciousness.

But how do we arrive at situations that provoke this sensation of flow? It is not just something within the structure of the activity itself which determines whether the flow state will be experienced or not. Csikszentmihalyi points to the existence of the autotelic personality (1988:31) and suggests that the ability to experience flow may be due to individual differences that are in part inborn, but also that it may be something that one can learn. It has often been pointed out that some people have to draw on and develop areas of the brain to function in ways that for the majority of the population are remote and inaccessible. One example is the tradition of yoga to be able to train the skill of concentration, memory and of limiting the immediate focus of the mind, all elements which make the balancing of challenge and skills easier.

Csikszentmihalyi has proposed that for flow experiences to happen certain conditions have to be fulfilled. Two main conditions are:

'Balance of challenge and skills'

When a person's skill is just right to cope with the demands of a situation- and when compared to the entirety of everyday life the demands are above average – the quality of experience improves noticeably. It does not matter whether one originally wanted to do the activity, whether one expected to enjoy it or not. Even a frustrating job may suddenly become exciting if one hits on the right balance.

'Establishment of clear goals and the provision of unambiguous feedback'

The activity must have relatively clear goals and provide rather quick and unambiguous feedback. It is difficult to become immersed in an activity in which one does not know what needs to be done, or how well one is doing. A game without rules, without a way to assess performance, would be impossible to play. [33]

In addition and drawing on the common experiences of people who claim to have 'flow' experiences Csikszentmihalyi identifies some other common factors which seem to occur to such people in such states. These include; focused attention leading to a merging of activity and awareness, a sense that the outcomes of the activity are within the personal control of the individual involved, and a distorted sense of time.

When people are deeply engrossed in an activity that is enjoyable to them, they seem able to experience high levels of involvement and sharpened concentration. This seems to come about because "flow produces a sense of harmony within the self", this in turn produces "a merging of activity and awareness" (32) that is often present when we lose ourselves completely in an enjoyable activity. It is almost as if we do not have enough attention left to devote to anything else. "A consequence of this state of affairs is that the usual preoccupations of everyday life no longer intrude to cause psychic entropy[34] in consciousness." (33)

[33] Some interesting examples of processes where the need for quick and unambiguous feedback are given (32). 'Surgeons, for example, unanimously claim that the reason their craft is so enjoyable is that they always know what must be done- to cut out a specific tumour, to reset a given bone- and second by second they are getting information about how the operation is proceeding (Csikszentmihalyi 1975, 1986) Blood in the cavity during an operation for example may mean that the scalpel has slipped. Because of this immediate availability of feedback, surgeons say, their work is much more enjoyable and exciting than that of internists or psychiatrists. Internists and psychiatrists however, enjoy their work because they pay attention to a set of challenges, goals, and feedback that, although less concrete than those surgeons attend to, is nevertheless just as real to them'.

[34] Psychic entropy states are those that produce disorder by conflicting with individual goals, for example, anger, fear, or frustration cause 'noise' which distracts , disturbs and makes concentrating on the task in hand difficult or even impossible. By contrast psychic negentropy is the 'optimal experience' or 'flow' which is characterised by states of total involvement and a merging of activity and awareness and sometimes a distorted sense of time.

According to Csikszentmihalyi respondents report that when they are in a flow experience they have the conviction that the outcomes of the activity are within their own control. The example is given of rock climbers who "insist that their hair-raising exploits are safer than crossing a busy street in Chicago, because when on the cliff face they can foresee exactly every eventuality, whereas when crossing the street they are the mercy of fate" (33). This may of course be no more than a conviction, there surely are some circumstances that could occur and cause the climber to lose his tenuous links with security and total predictability.

The distorted sense of time that people who are deeply engrossed in an enjoyable activity experience is perhaps a more common perception. When consciousness is fully active and ordered, hours seem to pass by in minutes, and occasionally a few seconds stretch out into what seems to be an infinity.

> The clock no longer serves as a good analogue of the temporal quality of experience and because of the deep concentration on the activity at hand, the person in flow not only forgets his or her problems, but loses temporarily the awareness of self that in normal life often intrudes in consciousness, and causes psychic energy to be diverted from what needs to be done. (33)

Csikszentmihalyi describes how at the most challenging levels, people actually report experiencing a transcendence of self, caused by the unusually high involvement with a system of action so much more complex than what one usually encounters in everyday life.

> The climber feels at one with the mountain, the clouds, the rays of the sun, and the tiny bugs moving in and out of the shadow of the fingers holding onto the rock; the surgeon feels at one with the movements of the operating team, sharing the beauty and power of a harmonious transpersonal system. (33)

Describing the manifestations of flow states, Csikszentmihalyi suggests that "when all these elements are present then consciousness is in harmony, and the self – invisible during the flow period - emerges strengthened. The negentropic quality of the flow experience makes it *autotelic*, or intrinsically rewarding (33) (emphasis in the original). While the most frequently expressed reason for climbing a mountain is usually, "because it is there", Csikszentmihalyi has suggested this answer may too glib or even that it hides the real reason for taking the decision to reach the summit of a challenging mountain. Maybe the climber does it in order to climb and thereby reach the all-consuming experience of flow. Perhaps too, transcendental

experiences triggered by the majesty of nature surrounding climbers has much to contribute to the overall experience[35].

By contrast when we are not pleasurably involved and engrossed in what we are doing, when our attention and interest are not captured, then we may find concentration difficult and the outside world impinges constantly on us, chipping away at our resolve and making the task in hand more difficult.

As the flow experience seems to put the person involved in a highly pleasurable state, (even if not without its risks if the state is reached in certain challenging situations as in the examples we have mentioned earlier), it has been seen as a type of sense that human beings have developed in order to recognise patterns of action that are worth preserving and transmitting over time. These types of pattern of involvement and absorption with the task in hand are also associated with people who have special talents and skills which do not necessarily put them in life threatening situations, for example artists, writers, composers.

2.1. Relevance of flow type experiences for teaching

There are some important implications and occasions when flow experiences can and do exist in classroom teaching and learning situations. When they do not exist we should consider ways in which such experiences might be triggered and to help or educate people so that they might be able to experience flow, or adopt approaches to teaching which allow for a possible shift from the demands to pass exams and meet syllabus requirements, demands are often imposed from outside, and might be described as resulting in extrinsic motivation to a more person centred focus which allows for the individual to find more opportunities for intrinsic, self rewarding or autotelic sense of purpose.

While one main focus of flow investigation has been into areas like those mentioned above, it is relevant to note that it is not restricted to those types of endeavours, nor does it necessarily come only when there are large amounts of time of undisturbed

[35] We have been able to pursue this question to a certain degree with some people who participate in a related interest, long trekking expeditions. As is to be expected clues as to why people take part in such activities will not be expressible in trite sentences but will be made up of a complex blend of interrelated reasons. Some of the main factors mentioned were: "feeling at one with nature and having one's problems put into perspective through this experience, harmony and communication (both tacit and verbalised) within other like minded people. The actual physical challenge, proving to oneself that one can do it brings some satisfaction but was rated less important than the combination of the previously mentioned factors.

time available. It has been suggested that it is possible to conceive of flow as phenomena sprinkled throughout daily routines and encounters. Mitchell (1983) gives the example of conversations. We will all be able to recall times when for example if the roles of the participants are unclear or the parameters of the situations are unclearly defined, the talk can be uncomfortable and halting, or again when conversation may be stifled by rules of order or set procedures so that only a vestige of one's ideas is communicated. There are also times when conversation progresses comfortably, when ideas are exchanged directly and easily, when emotions are shared and when the participants feel that they understand and are understood. [36] In such positive situations a type of flow situation exists and there is no reason why these types of situations cannot exist in classroom teaching and learning situations.

Another type of flow experience, which draws within its focus not just an individual involved in his own personal endeavour, but is dependent on other people is the concept of 'Communitas' described by Turner (1969). Here social roles are temporarily suspended and one becomes part the social order rather than being controlled by it or by the normally perceived hierarchy of control[37]. Although in many teaching

[36] Both these extremes are so often present in classroom situations. Be they foreign language classrooms or any other type of teaching / learning situation. A good example is in foreign language classrooms or where for some reason people are communicating in a language over which they do not have the dominion they aspire to, where people feel inhibited and limited in their ability to communicate. This may be as a result of the perception of having insufficient language to be able to communicate, or of having the basics but not enough to allow one to express shades of meaning and subtleties as in one's native language. Anyone who experienced this for themselves, either as being on the receiving end of another person's efforts to communicate or as the person who is trying to get their message across, will be aware of the inhibiting and blocking effect on conversation. However, there are also situations where although one or other of the conversants may perceive gaps in their language and thus feel they cannot properly get their message across, nevertheless communication proceeds and indeed flows. This may be due to a variety of factors, for example, outgoing personalities may not be inhibited by the apparent lack of language. However we suggest that the ability to communicate one's ideas depends more on the type of situation in which the conversation or talk takes place. In classrooms for example where little attention is given to building good relations, where students feel threatened in some way then situations of psychic entropy are produced, so much interference gets in the way, nerves, embarrassment, self-consciousness, and so on. This is an area closely related to that of affect in teaching, for where teachers are able to create classroom environments where students do not feel threatened, where they are valued as people and where there is good rapport between teacher and students and between the students themselves then there is a greater chance of people feeling at ease enough to take the chance of expressing themselves and find that even with a perceived lack of language they get their ideas across and moreover, enjoy the experience.

[37] We give two examples here, one taken from outside of an educational context, and one from within: a) A group of people who only usually meet from time to time and maybe by chance are for some reason, and of their own volition bound together in some event they have organised. While the conditions of the event exist a possibly previously unexperienced group sensation of bonhomie is generated. When the event is over the situation relationships between those involved may return to the pre event days or the effect may rub off and help people to forge stronger personal relations with other individuals of the group than they did before.

b) A school or a class in a school decides to put on a play, or some other type of performance for public viewing. In such a situation, the normal hierarchy of roles is changed, and the whole context in which

situations this may seem to have little relevance, especially in those where discipline problems[38] have become the order of the day, there are occasions when similar situations may occur in teaching. One example might be in courses for adults and in-company teaching where the need to set up clear boundaries to encompass teachers' and students' roles is not such a pressing matter, and where the role of the teacher can even on occasions seem to merge with that of the learners. Also in classes where the teaching and learning is person centred and where the teacher is, more than a teacher, a facilitator of the learning process and not a distant figure of authority, then this kind of feeling of everyone working together in a united front can and does occur (Rogers 1994) and is characterised by situations where teacher and students have confidence in and trust each other.

In situations where the classroom hierarchy is clearly set up and respected it is also possible to create situations which from time to time, allow the pattern to be broken and where for periods of time the apparent hierarchy of control seems temporarily set to one side. The teacher may for example set up group work where each group is responsible for the outcome and presentation of their work to the class. On occasions like these the teacher moves around the classroom and sometimes may even participate in the groupwork as another group member rather than in the role of teacher. It is also quite possible to give students the responsibility to prepare and present some classroom activities from time to time.[39]

---

the group and the teachers involved work together is altered. The endeavour may no longer be seen as work but rather as a joint challenge which is demanding yet fun at the same time. Teachers and students devote much time and effort to the project during which time a sense of camaraderie and bonding is set up, which may be far removed from the situation and relationships which normally exist in regular day to day classroom activities. When the project, the play, the review, the poetry reading has been performed and life has to return to normality often a sense of anticlimax, of loss are experienced, yet at the same time the feeling of community stays strong in the minds of those involved, forming part of their group history and as in the previous example, sometimes leading to the forging of friendships between people who hardly knew each other before. From our own experience when we have been involved in school plays, in the organisation and mounting of students' art work for exhibition and in poetry readings this has occurred.

[38] It is sad but true that for many teachers the issue of discipline is uppermost in their minds these days. In a recent GRETA conference for teachers held in Granada, Spain in September 2000, many participants commented on the outstandingly high number of people who opted to attend a session on classroom discipline when many other interesting and relevant areas where open at the same time slot and remained poorly attended. The issue of discipline is a vast and complex one which poses challenges to school management and teachers in countries all over the world. Maybe one clue in working towards ways of diminishing discipline problems might be in trying to create occasions in learning situations when learners instead of having everything imposed upon them were also helped to find and work on areas which might be of real interest to them.

[39] One such way of temporarily handing over responsibility to students which works very well, is in allowing them to select and present a song or piece of music together with some kind of follow on activity to their fellow students. Another useful way of breaking the concept that the students have no control over listening activities is in giving a student control over the cassette recorder or some other method of controlling the pace of listening and the ability to stop, rewind or replay the recorded material.

In our own experience in teacher training courses and workshops with practising and pre-service teachers if the courses are designed and carried out with an interactive and experiential rationale, occasions frequently arise when clear role boundaries are broken down. In classroom teaching situations when everything goes well, when it seems that everything is in tune, when the students are with you and fully involved in the activity when everyone seems to be riding the same current towards a common goal, this can truly be described as an 'optimal experience'. Thus we suggest that the more everyday type of flow experiences, seen as''phenomena sprinkled throughout daily routines and encounters' can perfectly well be regular features of good, humanistic teaching

In order to help students work towards achieving intrinsic motivation we should also bear in mind the requisite balance of challenge and skills which Csikszentmihalyi has suggested are necessary. We would also suggest that this is what good teaching should always be working towards and as such should be an ongoing concern of teachers[40]. So too are the establishing of clear goals and the provision of feedback a necessary element of good and effective teaching, aspects which we have discussed in our own framework for creative teaching in section IV.

2.2. Summary of implications for creative teaching

In this section we have looked at the concept of intrinsic motivation and its links with 'flow' or optimal experience as viewed by various writers in the field and we have also drawn on our own experiences. We have suggested that there are some important implications to be considered from the point of view of teaching in general and which in turn are relevant for creative teaching.

We need to recognise the existence of intrinsic or self rewarding activities and from the point of view of educators ensure that activities which provoke these types of responses are not only to be associated with when students are not in classrooms, that is that experiences in the classroom can also be enjoyable and rewarding. We need to recognise that flow experiences can be sprinkled throughout our daily lives and again make sure that such experiences also form a part of everyday classroom experiences.

[40] In the teaching of foreign languages the element of Challenge and Skills is a particularly relevant one. It is not enough just to teach the language, we also need to set up situations which provide a degree of challenge for students, at the same time ensuring that they have the skills and strategies to deal with those challenges.

We need to bear in mind the positive and community building effects of joint ventures where on occasions the normal relationship hierarchies are temporarily set aside. We need to build into our lessons challenges for students which are just that, challenges but with the acquisition of the skills they need to make those challenges attainable. We also need to build in opportunities for learners to develop strategies for dealing with occasions when they have to fall back on their own resources.

All of these are big challenges and perhaps seen as far beyond what may reasonably be expected of teachers getting on with the daily task of teaching large classes of unmotivated, unruly and seemingly bored students. Amabile (1983) whose conceptual framework for creativity we have looked at in Section II Part 1, has put much emphasis on the importance of motivation as one component of creativity that of Task Motivation. In this she emphasises how one's attitude towards the task in hand and the perceptions of one's motivation for undertaking the task are so crucial and these in turn are highly dependent on factors like one's initial level of intrinsic motivation towards the task, the presence or absence of salient extrinsic constraints in the social environment and the individual's ability to minimise extrinsic constraints. From our own point of view this emphasises the fact that creative teaching cannot be imposed on anyone from outside. The desire or the decision to work towards more creativity in one's teaching has to come from inside each individual teacher. We need to rise to the challenge but also we need the skills to be able to work towards these aims and we will be helped on our way if our efforts are rewarded by a sense of achievement and the feeling that it is all worth while not just from our own point of view, but, as we are talking about situations which by their nature involve those other people, the learners, our reward will be in their increased involvement, interest and enjoyment of their learning experiences.

3. COMPONENTS OF CREATIVITY.

In the human sciences a distinction had been made principally in the work of Allport (1961) between two types of research, idiographic and nomothetic. Idiographic research draws on individual case studies, while nomothetic research looks for general laws and as such tends to overlook individual differences, focusing as it does on patterns which can be applied more generally to the population. Gardner's work is particularly interesting and relevant to us in this study for the view of human intelligence which he opened up and for his research into human creativity. In *Creating Minds* (1993) he draws together aspects of idiographic and nomothetic research in an in depth study of the lives of seven well-known and outstandingly creative people.

Gardner's view of creativity encompasses the importance of intrinsic, as compared to extrinsic motivation in creative processes. This is a main element in the work of (Amabile 1983), and indicated of the presence of 'flow states' (Csikszentmihalyi 1988,1996) which seem to be generated in those states of complete immersion and involvement so often characteristic of creative individuals. Approaches like these have been seen as complementing and extending earlier psychometric approaches to creativity, that were loosely based on the earlier intelligence tests.

In Gardner's work we see a close interweaving of intelligence and creativity. He has defined a creative person as one who solves problems, fashions products, or poses new questions within a domain in a way that is initially considered to be unusual but is eventually accepted within at least one cultural group. He also underlines that no person, act or product is creative or noncreative in itself and judgements of creativity are inherently communal, relying heavily on individuals' expert within a given domain.

Definitions of creative individuals usually agree on elements such as the idea that creativity involves problem solving and that the solution combines both initial novelty followed by ultimate acceptance of the outcome. To these Gardner adds the following aspects.

- A creative person must be creative in a domain rather than across all domains (see also Amabile and Csikszentmihalyi) which challenges the idea that creativity is an all-purpose trait. Gardner focuses on the particular domains or disciplines within which an individual works, and the ways in which those domains may be refashioned as a result of creative breakthrough.

- Creative individuals regularly exhibit their creativity which calls into question the idea of a once in a lifetime burst of creativity.

- Creativity involves the fashioning of products or the devising of new question as well as the solution of problems. Creativity is often characterised by the discovery of an unknown or neglected set of issues or themes that call for fresh exploration

We see reflected here two aspects which have come to be seen as important elements in creative processes and outcomes, that of domain[41] and location. Amabile (1983)

[41] 'Domain' according to Gardner (1994:56) refers to the structure of knowledge within a particular area, craft or discipline. Domains run the gamut from standard academic disciplines such as physics or history to cultural practices that are conveyed chiefly by example, such as sailing or baseball. Crucial to the existence of domain as an end state of knowledge/ competence is a set of steps through which individuals will normally pass , from novice to expert status. While domains necessarily involve human beings, they

has taken 'domain' as one of the main elements of her conceptual framework for creativity. Csikszentmihalyi (1988b) shifted the focus of creativity from 'who' and 'what' to 'where', seeing creativity as emerging from a dialectical process among individuals of talent, domains of knowledge and practices, and field of knowledgeable judges, pointing to the belief that creativity cannot be viewed as something stemming purely from an individual. This is echoed too in the thrust of Amabile's research that focuses on the sociological aspects of creativity. As Gardner underlines,

> If one wants to understand phenomena of creativity, one cannot simply focus on the individual, his brain, her personality, and their motivations. Instead, one must broaden one's focus to include a study of the area in which that creative individual works and the procedures by which judgements of originality and quality are rendered (Gardner 1994:73)

Gardner's important contribution to the study of individual learning and one's facility and strengths in dealing with the world and the input one receives, and which in consequence is closely related with creativity, has been in the inclusion of dimensions of separate faculties or intellectual strengths that he has called the seven human 'intelligences'[42] (1983). In recent years (1999) he claims to have identified two more possible intelligences[43]. The claim is that all normal human beings can develop at a whole range of different intelligences, and that individuals differ from one another in the strengths and configurations of these intelligences.

Another perspective Gardner contributes to the study of creativity lies in the claim that highly creative individuals are characterised particularly by a tension, of lack of fit, between the elements involved in productive work, an element that he has labelled 'fruitful asynchrony'.[44] Against this background of assumptions and beliefs,

---

are best thought of apart from human beings-bodies of knowledge that can be described in the abstract and that would in some sense continue to exist even if all individuals disappeared. One can think of domain as the information that could be contained in a textbook or in a series of lessons or demonstrations.

[42] These seven 'intelligences' are, very briefly outlined, as follows: Verbal / Linguistic- deals with words and language, both written and spoken. Interpersonal - related to person to person relationships and communication. Bodily / Kinaesthetic- refers to physical movement and the wisdom of the body, uses the brain's motor cortex which controls bodily motion. Musical / Rhythmic –deals with recognising tonal patterns, sounds, rhythms, and beats. Visual/ Spatial- relies on sense of sight and ability to visualise, includes ability to create mental images Logical/Mathematical – deals with inductive and deductive thinking, numbers and abstract patterns. Intrapersonal- relates to self-reflection, metacognition, and awareness of internal states of being. We look at these 'intelligences' in more depth and for their relevance to creative teaching and learning in Section III

[43] These are a 'naturalist' intelligence, and a tentative outline of an existential intelligence. We look at the implications of the naturalistic intelligence in Section II.

[44] Gardner has illustrated this concept by looking at the prodigious individual and contrasting them with the highly creative individual. In the case of the prodigy, a talented individual fits very well with a

(touched upon in our study only in a very superficial and far from complete way) Gardner embarked on his study of 'creators of the modern era', which culminated in *Creating Minds* 1993. In this work he explored in depth, the lives of seven acknowledged creators[45] each of who exemplified at least one of his seven 'intelligences'. Gardner's approach to creativity and the structure he has adopted to analyse the lives of outstandingly creative people are as follows (29)

3.1. Gardner's "Principal Components in the Study of Creativity"

I. Organising themes

A. Relation between the Child and the Adult Creator

B. Relation between the Creator and Others

C. Relation between the Creator and His or Her Work

II. Organising Framework

A. Developmental Perspective

1. Life-course Perspective

2. Creation of a work

B. Interaction Perspective: Interaction among Individuals, Domains and Fields

1. Definition

2. Multidisciplinary Framework

3. Where Is Creativity?

domain that exists in his society and his work is immediately recognised as highly competent by members of the relevant field. In contrast, the creative individual, is marked by one or more asynchronies; an unusual configuration of talents, and an initial lack of fit among abilities, the domains in which the individual seeks to work, and the tastes and the prejudices of the current field (72) Gardner suggests that it is in the conquering of these asynchronies that leads to the establishment of creative work that later comes to be valued and cherished.

[45] Gardner claims that Sigmund Freud was the exemplar of intrapersonal intelligence; Albert Einstein represented logical-mathematical intelligence; Pablo Picasso – spatial intelligence; Igor Stravinsky, musical intelligence; Martha Graham, bodily –kinaesthetic intelligence; and Mahatma Ghandi, interpersonal intelligence.

C. Fruitful Asynchrony

III. Issues for Empirical Investigation

A. Individual Level

1. Cognitive Issues

2. Personality and Motivational Issues

3. Social – Psychological Issues

4. Life Patterns

B. Domain Level

1. Nature of Symbol Systems

2. Kind of Activity

3. Status of Paradigm

C. Field Level

1. Relation to Mentors, Rivals and Followers

2. Level of Political Controversy

3. Hierarchical Organisation

IV. Emerging Themes

A. Cognitive and Affective Support at the Time of the Breakthrough

B. The Creator's Faustian Bargain

3.2. Areas of possible relevance for this study.

3.2.1. Role of individuals and environments in the future creative development of young people

While much of Gardner's work on creativity is focused on the lives of exceptionally creative people, the first of his 'organising themes' seems particularly relevant to us as it deals with aspects of creativity which have much to do with education in its

focus on relationships between the child and others in the child's life which can be extended to include all the years of formal education. Gardner's studies into the lives of creative people also consider individuals who were particularly influential in the life of the creative person studied.

Even if we are not dealing with creativity on a grand scale, the type of environment and the encounters the child experiences in different areas of his life can be highly influential for his future potential creativity. As school hours take up quite a large amount of hours in the child's day, the way a child, young person or teenager is taught and encouraged or not, as the case may be, in more creative aspects may have resounding repercussions for the individual's future development.

Among others, Amabile (1983) has signalled the importance of external influences on an individual's creativity. Childhood creativity is often recognised and accepted as a given, "children are naturally creative" is a frequently heard claim, although there are clearly, even in early years widely differing degrees of this 'natural creativity' for a variety of complex reasons.[46] While concerns for the creative development of children during the early stages of their education are to a certain degree catered for in schools, and special projects run to foster creativity in teachers and pupils, it is remarkably hard to find programmes that look to the development of creativity in

[46] Frequently cited factors include; genetic make up which can contribute to greater or lesser degrees of creativity in individuals and which education and external influences can do little to change; Personality traits; the influence of parents, their expectations, and limitations, the expectations and limitations of society and peers and so on.

[46] One such project which has broadened its perspectives to include the development of creativity in adults as well as children is 'Project Zero'. Project Zero was founded at the Harvard Graduate School of Education in 1967 by the philosopher Nelson Goodman to study and improve education in the arts. Goodman believed that arts learning should be studied as a serious cognitive activity, but that «zero» had been firmly established about the field; hence, the project was given its name. David Perkins and Howard Gardner became the co-directors of Project Zero in 1972. Over the years, Project Zero has maintained a strong research commitment in the arts while gradually expanding its concerns to include education across all disciplines — not just for the individual, but for whole classrooms, schools, and other educational and cultural organizations as well. Much of its work takes place in American public schools, particularly those that serve disadvantaged populations. An increasing amount of work takes place in schools and other educational and cultural organizations overseas. Project Zero's work is documented extensively in a variety of publications and materials by Principal Investigators and other Project Zero researchers. In addition, the project offers symposia and workshops, most notably the annual summer institute. Its mission is to understand and enhance learning, thinking, and creativity in the arts, as well as in humanistic and scientific disciplines, at individual and institutional levels. Harvard Project Zero, a research group at the Harvard Graduate School of Education, has investigated the development of learning processes in children, adults, and organizations for over 32 years. Today this project builds on this research to help create communities of reflective, independent learners; to enhance deep understanding within disciplines; and to promote critical and creative thinking. Project Zero's mission is to understand and enhance learning, thinking, and creativity in the arts, as well as in humanistic and scientific disciplines, at individual and institutional levels. http://pzweb.harvard.edu A «Project Zero Classroom» is described as a classroom where teachers promote students' efforts to understand important content, recognize and develop students' multiple intellectual strengths, help students learn to think critically and work with students to assess their work in ways that are ongoing and promote further learning.

teachers and in older school children in secondary education and beyond. It is as if we were accepting that fostering creativity is important in the early years, but unfortunately if we have not done anything about it in the early years, now there are far more important things to be dealt with and we have no time for creativity. Once beyond primary education levels, learners in general are expected to conform, by teachers who also have to conform and sometimes deny their own personal creativity in their teaching. One teacher writing in her journal expressed just these sentiments in this way,

Teaching no longer offers the chance to be creative and stimulating. It's frustrating not to be able to try something different. How can you be a teacher without being creative? I feel angry when I feel stifled not able to use everything I've learned É the students are not robots nor are the teachers, but with the demands of society for budget cuts and higher test scores, we are failing to realise that we are dealing with students who are feeling, total, human beings..." (Personal communication.)

3.2.2. Pressures and constraints on teachers

An overwhelming impression we have gained from speaking to people involved in different levels of education in Britain and in Spain echoes only too clearly the above teacher's feelings. Pressure of work and too much administration, large unruly classes, disapproval from the authorities, and the perennial complaint of lack of time to indulge in activities which have anything remotely to do with creativity all feature amongst the complaints of teachers, including those who truly feel that creativity should be an integral element of any teaching programme. This is disturbing when as more and more enlightened educators are realising that in order to educate young people for the future we need to educate and prepare them to be flexible and ready to deal with rapid change. Acquiring vast quantities of facts is not enough, or not even perhaps the most important thing we need to teach, rather it is in being able to respond flexibly, wisely and even creatively to situations as they evolve while drawing on the knowledge and experience we have gained in different fields that will be valuable in the years to come. Education for change[47] is vitally important.

[47] This is one important objective of the Project Zero philosophy 'If students are to succeed in today's changing world, they need to understand concepts deeply enough to use them in diverse situations. The Project Zero Classroom 2001 is designed to help practising educators shape their own classrooms and instructional materials to help students develop such understanding' http://pzweb.harvard.edu

Rogers (1994) has pointed to how teachers complain that people are afraid of creativity for its threat of change and the undermining of their sense of security. Many teachers realise the need to educate students for change but find systems inflexible and intransigent

3.2.3. Being open to change and evolution

The aspect of openness and acceptance of change is important for both teachers and learners. Teachers' attitudes of openness, flexibility and awareness of areas are highly influential factors in making the teaching/ learning experience richer and more rewarding. Gardner (1993) drawing on the work of cognitive researchers like Boden and Sternberg) points to the fact that,

> Creative people seem able to identify problems and solution "spaces" that appear promising; search within these spaces for approaches appropriate to the problem at hand and for leads that may pay off; evaluate alternative solutions to the problems; deploy resources of energy and time to advance their program of investigation in an efficient manner; and determine when to probe further and when to cut losses and move on, and more generally, reflect on their own creating processes." (22)

This describes a facet of creative people. It also suggests a perfect framework in which to fit creative teaching, all that is necessary is to insert "creative teachers" at the beginning of the paragraph and teaching processes at the end. It then includes all the important aspects that aware, committed, reflective and creative teachers need to incorporate into their teaching.

3.2.4. Drawing the threads together-implications for creative teaching

From the work of Gardner and other researchers in the field of creativity we have drawn out some threads which we consider are especially relevant to creative teaching both from the point of view of encouraging creativity in learners and for the ramifications for teachers and their teaching processes. Gardner has emphasised that the importance of the early years in the life of a child are crucial for later creativity, coining the term'"creativity capital" for the investment laid down in the early years which later serves as a fund of possibilities for future creative development.

> If in early life, children have the opportunity to discover much about their world and to do so in a comfortable and exploring way, they will

> accumulate invaluable 'capital of creativity' in which they can draw in later life. If on the other hand children are restrained from such discovering activities, pushed in only one direction, or burdened with the view that there is only one correct answer or that correct answers must be meted out only by those in authority, then the chances that they will cast out on their own are significantly reduced (1993: 31)

We would also point to the severe neglect of concerns with creativity as young people move beyond primary teaching, and to the fact that although back in the 1960s one foreseen outcome for research in creativity was that it might help to break down the restrictive practices of traditional lockstep teaching and move towards encouraging and taking account of individual differences, while there have certainly been changes, taken overall, many changes have been superficial.

Yet while the roots of creativity may be nurtured or neglected in childhood, all may not be lost if at some stage in the educational process the young person has been inspired or drawn out in some way by someone to whom they can relate[48]. As Gardner (1993) points out it does not necessarily follow that all creative people have experienced childhood years full of happy discovery and exploratory learning. It is reassuring to note that when people who have not experienced childhood years that provide them with this "creativity capital", there are still those who have gone on to become outstandingly creative and Gardner suggests that this is often related to a fruitful encounter with at least one role model who did not simply "toe the line", but rather encouraged a more adventurous approach towards life.

Herein perhaps lies one of the strongest arguments for creativity in teachers and creative approaches towards teaching, in the years beyond primary education.

Many of these concerns are encompassed if we accept and apply Gardner's theory of Multiple Intelligences at all levels of teaching, not limiting its application to primary education. It is perhaps in this area as much as any other that we find real relevance and practical application to teaching and learning situations those aim to develop the creativity of learners. By being aware of and exploiting learner differences we open the possibilities and allow more learners to achieve more by not attempting to

[48] This theme has often been taken up by film makers, and although the student/s who 'find themselves' do not necessarily become highly creative people, they are portrayed as in some way as being released from the prison of restrictions which rendered them previously incapable of expressing themselves in sociably acceptable ways, until the encounter of the 'influential' person wrought changes in them. Some examples are: 'To Sir With Love' (1967 Director James Clavell) 'Dangerous Minds' (1995 Director John N. Smith) and more recently 'Finding Forrester' (2001 Director Gus Van Sant)

give them credit only for traditionally accepted types of intelligence. If we are prepared to accept different types of thinking and intelligence perhaps we will also be opening the doors to more personal and individual achievement and creativity. In Section III we look at Gardner's theory of Multiple Intelligences in a little more detail and focus more on the practical implications for creative teaching and learning.

4. OTHER VIEWS OF CREATIVITY.

Creativity as a personal attribute has been viewed in many different ways. Some bodies of opinion have looked at creativity as some kind of special talent or gift that is associated with the coming together of a complex blend of factors which render some individuals capable of reaching levels of creative thought and production and which in some seems to raise them above the average and puts them in a special, exalted position, a position deemed to be reserved only for the chosen few. While there are individuals who attain heights of creativity to which the majority of humanity cannot not aspire, there is quite clearly at the time of writing, an overwhelming tide of belief that creativity is certainly not reserved for the chosen few but is an ability or an attribute which is innate in everyone of us. While this is not to imply that the creativity of recognised geniuses can be attained by everyone, what is suggested is that personal creativity can be developed and nurtured so that everyone may lead richer, more fulfilled and creatively productive lives, should they want to and be allowed and encouraged to do so.

Dilts, Epstein and Dilts (1991) express the conviction that people are born creative and that "creativity is a function of the way you use your neurology, the way you organise the process of how you think about something" (7). Dilts, Epstein and Dilts move within the world of Neuro Linguistic Programming, which is principally concerned with the optimising of human experience and performance. This is done by developing an awareness of one's own ways of thinking, being and acting and by observing and applying the strategies of successful people to one's own resources. The Neuro Linguistic Programming view of creativity is that, "it is like, for example, spelling or reading. It is a set of steps that you go through mentally and that can be learned and recapitulated by others". (7) and which forms the distinction between humans and other animals.

> Human beings are distinguished from other animals by the depth of their ability to make maps and use tools to turn those maps into reality. Ants can leave a trail, bees can do dances and make complex hives, but neither can draw something that exists only in their imagination. (354)

Dilts et al. have suggested that at the root of evolution lies the human ability to choose and that choice requires having a richer and wider model of the world and the ability to disassociate oneself from an immediate reflex. This again is one of the basic premises of NLP. The capacity of the human brain is vast, yet it is commonly stated that most people use only 5-10% of that capacity[49]. We support the contention of Dilts et al that creativity is a function of how we use that capacity.

The key points of their argument are as follows:

1. You think with your brain. Your brain operates by processing sensory representations and impressions. Those sensory impressions are the meat of what makes a human being human and of what makes creativity "creative".

[49] Read (1998) http://enchantedmind.com/html/memory.htm .has addressed this question and agrees with many others that we use less than 10% of our brains' potential although empirical evidence is not available to back up this claim. It has been 'guestimated' that there are approximately 100 billion brain cells and he points to the impossibility of mapping brain usage. Even if one attempted to take a random sampling of perhaps 100 people, and test every portion of their brains against their cognitive usage, this data would be heavily biased towards culture, age and educational background. Thus the statistical norm of even sampling this of 100 would carry such heavy inherent biases that no conclusion could be drawn (1) One example of mapping the brain usage compared to the norm was done in studying Einstein's brain. The one definitive difference found in his brain which differentiated it from the norm was in the high number of glial cells in his parietal lobe. Glial cells are the supporting structure for neurons. High counts of glial cells could indicate that he was using this portion of his brain cognitively and extensively. The parietal lobe is thought to facilitate abstract thought. We know that whenever anything is learned there are new dendrite connections made between neurons. Greater usage of the brain through learning and stimulation creates greater dendrite activity. Einstein's brain indicated extensive dendrite connectivity (1)Read points to some factors which suggest that human beings are capable of extraordinary abilities. For example,' idiot savants', who while appearing mentally defective, are able to calculate incredible numerical equations at lightening speed. One example of this was the character portrayed by Dustin Hoffman in the film *The Rainman.*. Read suggests that the fact that there are humans who have demonstrated this ability shows that the human brain is capable of such achievements. Similarly the incredible demonstrations of biological control exerted by eastern Yogis and Tibetan monks over their autonomic nervous system, being able to slow heart rate to almost nil or to sit in freezing weather with wet towels drying on their backs because of the intense heat generated with their bodies through the power of the mind. Another area of interest is that of Extra Sensory Perception which according to Read is being supported by mounting evidence that certain individuals have great capacity in this area, although what areas of the brain are involved is not clear, for this type of perception which goes beyond the five senses. These areas of highly developed abilities which manifest themselves in some individuals has been taken to suggest that there are areas of the brain which possess these capabilities but are not functional in the majority of individuals. A further consideration is that creative genius in any area, for example artistic, mathematical, scientific, linguistic and intellectual, might be seen as a type of evidence that certain individuals are using parts of their brains that the majority of people are not. Whether the arbitrary figure of 10% is close or not it seems possible from those who have demonstrated exceptional abilities that the majority of mankind are not using a fraction of the total capacity of the brain in our daily thinking processes. From a more personal point of view Read expresses his ideas on the matter "Those who chose to believe that they are using close to their full potential are welcome to do so. Yet I feel that the evidence thus far is overwhelming that we are tapping a small portion of what the human brain can do. If each of us were operating with fully functional brains, meaning that we all had the capacities of any genius, we had total physic functioning and complete control over our autonomic nervous system at will, we could be said to be operating at full capacity. I find it heartening to realise that there is a great deal of potential that I have yet to realise, rather than to assume that my present state of mind is nearly the best it gets, I delight in the notion that there is a great deal of room left for improvement, new experience and the flowering of genius. Accepting this I never expect to see the end of the horizon of mindful potentials". (2)

2. The way in which you link those representations together as you build your model of the world determines the kinds of choices you perceive as available to you. The more rich and robust your model of the world is, the more rich and creative a life you will experience. Our models of the world are a function of the links that we establish between our perception of the environment, our behavioural actions, our internal plans and strategies, our beliefs and values and our sense of self.

3. The process of building our model of the world involves a feedback loop, T.O.T.E.[50] composed of internally generated goals, operations with which to implement those goals, and evidence procedures with which to evaluate our progress towards those goals.

4. The basic function of this feedback loop is to generate and filter experiences. We are bombarded with so much information that we end up needing to filter much of it out. The way in which we adjust and utilise our perceptual filters determines what we do with the information that is available to us.

5. Our inner representational and neural processes are supported and manifested through physical and behavioural activities in the form of accessing cues and physiological states.

6. Creativity involves the constant incremental updating and changing of goals, evidence procedures and operations. Different types of creativity derive from changing different fundamental parts of the feedback loop through which we interact with the world:

    - Innovation is a function of generating new goals and visions.

    - Discovery is a function of changing perceptual filters and evidence procedures.

    - Invention is a function of applying and varying the operations with which we manifest and achieve goals within the constraints of our environment.

7. Creativity is a reiterative process that involves a constant cycle of macro programmes in the form of "dreamer, realist and critic".

---

[50] The T.O.T.E Model is A mental strategy is typically organised into a basic feedback loop called a T.O.T.E. The letters T.O.T.E. stand for Test- Operate-Test- Exit. The T.O.T.E concept maintains that all mental and behavioural programs revolve around having a *fixed goal* and a *variable means to achieve that goal* (emphasis of the authors)

8. The total process of creativity not only involves our own mental activity, but our interface with the brains and nervous systems of other people. Creativity is influenced and expressed through our interaction and communication with others in a system wider than ourselves. (357- 358)

One of the most well known and long lasting descriptions of the creative process was defined by Wallas (1926), as comprising four stages: 'preparation', 'incubation', 'illumination' and 'revision'. Dilts, Epstein and Dilts, put it in a different way, seen not so much from the process the creative seed travels through in its journey to embodiment, rather they encapsulate creativity from the viewpoint of the person in whom the creative process is germinating, and see creative process as being embodied through *dreamer*, the *realist* and the *critic.*

The *dreamer* is seen as the stage in which the idea is planted or the problem to be solved is deposited in the mind of the person seeking a creative outcome. It is left there for the unconscious mind to work on and to hopefully deliver not necessarily one concrete solution, but more likely a variety of vague or half-formed ideas which may contribute in the search towards finding a creative outcome. Next the *realist* steps in and reviews the possible leads which have been generated and works towards formulating a more finished solution. This done the *critic* takes his stance assessing whether the found solution does in fact satisfactorily and creatively solve the problem. If it does, then that particular cycle is complete and a creative outcome is arrived at. If it does not then other solutions may have to be found these may mean returning to the realist stage and reviewing the possibilities generated or even returning to replant the problem for solution again in the dreamer stage.

This process is spelt out in more detail in the T.O.T.E. model devised by Dilts, Epstein and Dilts (377), which is described as follows:

4.1. The T.O.T.E. Model

A mental strategy is typically organised into a basic feedback loop called a T.O.T.E. The letters stand for Test - Operate – Test - Exit. The T.O.T.E. concept maintains that all mental and behavioural programs revolve around having a fixed goal and a variable means to achieve that goal. The model indicates that as we think, we set goals in our mind (consciously or unconsciously) and develop a TEST for when that goal has been achieved. If that goal is not achieved we OPERATE to change something or do something to get closer to our goal. When our test criteria have been satisfied, we then EXIT on to the next step. So the function of any particular part of a

behavioural program could be to (**T**)est information from the senses in order to check progress toward the goal or to (**O**)perate to change some part of the ongoing experience so that it can satisfy the (**T**)est and (**E**)xit on to the next part of the program (Emphasis of the authors) .

> Dilts, Epstein and Dilts enumerate in easily remembered mnemonic form, the effects that the T.O.T.E strategy might produce and which they call '*The AEIOU of effects'* (378)

In detailing the effects of the steps of a strategy it is helpful to remember that Operations usually consist of ***accessing* or'*utilization*** procedures; and Tests consist of *organization* and *evaluative* procedures. (Emphasis of the author). Thus the steps in a strategy will most likely produce one of the following effects:

Access information through the process of association and the application of perceptual filters.

Evaluate or judge information by comparing it or testing it against some standard or criteria.

Input information from the external environment.

Organize information by arranging it in a certain structure

Utilize some aspect of the external environment in order to express or change something.

The typical sequence of these functions would be:

> (**i**)nput from environment->(**a**)ccess other relevant information associated with the input->(**o)**rganize the information into an appropriate structure->(**e)**valuate the information according to priorities of criteria->(**u**)tilize something in the external environment in response to the evaluation (which creates new input)

Dilts, Epstein and Dilts believe that it is the type of representational systems, sub-modalities, orientations, linkages, etc., that a person uses to carry out these various tests and operations that will determine their degree of success (379). While a knowledge of NLP may well enrich and optimise procedures such as these, even without such knowledge such procedures may well provide a useful framework for creativity in teaching.

4.2. Implications

The brain operates by processing sensory representations and impressions and these sensory impressions are fundamental in making a human being human. Our sensory input, storage and recall, forms the basis on which we draw to live our everyday lives, it is moreover the source on which we call in the production of creative solutions. In our section on Imagery, we have discussed the importance of imagery for learning in general, for processing and remembering new information and in recognising the individuality of learners and their responses both in more traditional learning situations and those which call on more creative responses.

The importance of connections and being aware of the underlying structures and systems which support all things is gaining strength and is reflected in systems thinking. How we link our representations together in our minds in the construction of our model of the world determines the kinds of choices we perceive as available to us. Thus the implications are that the richer, the more diverse and robust our models of the world are, the more rich and creative a life we will experience. Our models of the world are a function of the links that we establish. Some important implications for teaching and learning are that we need to break down artificial barriers, to look for the interconnections and links which make sense to us personally and which can provide us with insights and understandings which may not come from a narrower and more exclusive view. One supreme example is in the area of foreign language teaching, where while learning, assimilating and coming to terms with the language, that language can in turn open for us new external worlds and if teaching is sensitive and creative, even a new awareness of one's internal world.

4.2.1. Feedback

Much emphasis in this view of creativity is put on the importance of feedback. The feedback loop is both to generate and to filter our experiences. More than ever before we are exposed to and bombarded with information from a multitude of sources. While multiplying our options and possibilities, we may also feel subjected to pressures from the sheer amount of information we are exposed to. It is in the way in which we adjust and use our own perceptual filters that are influential in determining what we do with information and input we receive.

The role of feedback in the model we have been looking at here is highly relevant, as it draws on the idea of a loop which might be applied to one's own personal experience, and more particularly to the area of our study, to the type of feedback loop a teacher might use in developing and exploring ways of working in the

classroom. The concept of feedback we have suggested in discussions on teaching[51] accommodates this interpretation and also draws on feedback collected both from students and from teachers' own reflections.

As we have suggested in other sections of this study, creativity is growth, and evolution, no less in teaching than in life. It involves the constant seeking to maximise teaching and learning situations, it involves the personal growth and development of teachers and students. This implies a flexible, adaptable attitude to all that goes on in teaching and learning situations. "Creativity involves the constant incremental updating and changing of goals, evidence procedures and operations" and in describing creativity as "a reiterative process" they emphasise the cyclical nature of processes which lead to creative outcomes, as in "dreamer, realist and critic"(380). Creativity is clearly not a one-off process, but an ongoing one which draws on elements stored in our memories which we may have previously visited but not used in the same way, or never visited at all before. It is often as Koestler (1989) has described in the juxtaposition of ideas or images that creative outcomes emerge. It is a matter of revisiting and 'seeing' possibilities that for one reason or another, perhaps because of closed, inflexible and well-trodden paths of thought, had not previously occurred to us.

4.3. Creativity through interaction with others: implications for creative teaching

While creativity is often viewed as a the result of an individual's special abilities, an interesting element of Dilts, Epstein and Dilts' view of creativity is in their emphasis on the interface with the brains and nervous systems of other people. Very often we tend to view creativity as a rather solitary process where an individual works on his own towards creative outcomes. While this may often be the case, creative work and idea generation in teams is a common occurrence in modern businesses and other concerns where creative outcomes are an integral and vital part of the success of the company. So too in the area of creative teaching. We cannot isolate or separate any creativity on the part of the teacher from the influence or affect this will have on students. Creative teaching may be revealed in ways of working which are innovative and flexible and which thus inevitably call on the involvement of students in the classroom, or it may be encapsulated in the type of activities and procedures which teachers draw on and use in the classroom with the specific

[51] See Section IV Part 3 of this study for discussions on the importance of collecting and using feedback from students and on the kind of feedback teachers amass from their own personal reflective processes

objective of encouraging creative responses in students. Another important facet in classroom situations is the contribution of students. We are convinced that giving students the opportunity to develop and prepare their own presentations within given frameworks is a prime example of how students individuality and imagination can make important contributions to the classroom dynamic, triggering off ideas and new possibilities for both teacher and students. Thus we would endorse the claim that "creativity is influenced and expressed through our interaction and communication with others in a system wider than ourselves" (357) and that such a system could be epitomised by an educational system or any situation where a teacher encourages and facilitates learning in students.

The importance of personal imagery, the interconnectedness of things, and the interpretations we opt for in building our personal models of the world, the need for constant feedback in creative processes together with the belief that creativity need not necessarily be associated with solitary and individual effort are key factors for our study and which we will develop further within the context of creativity in teaching.

5. CREATIVE PRINCIPLES OF LEONARDO DA VINCI

At the present time there is growing interest in the possibilities of improving and enriching the human experience at the same time we are constantly being reminded that so little of the potential capacity of the human brain is ever tapped. The concept of "modelling", which is based on the observation of the 'modus operandi' of successful people and then attempting to replicate their patterns of behaviour has been suggested as one way of maximising one's potential. The concept of "models of excellence" is central to Neuro Linguistic Programming[52] although not exclusive to it. Many have explored the lives of creative people attempting to draw out threads, clues and behaviours which seem to be characteristic of highly creative people. The life of Leonardo Da Vinci is frequently held up as an example of a creative genius whose talents were wide ranging and which emerged and were given form in a wide variety of different disciplines.

Gelb (1998) has examined the model of one of the world's most recognised creative spirits, Leonardo Da Vinci and has identified what he calls the "seven creative

[52] For a brief discussion of Neuro Linguistic Programming and its relevance for creative teaching see section III

principles of creativity of Leonardo Da Vinci". The suggestion is that following and integrating such principles into the attitudes and behaviours we adopt in our lives can provide us with a framework on which to work if, as individuals we wish to develop our creative faculties. The claim is not of course that everyone will become geniuses comparable to Leonardo, but rather that those who wish to can develop their abilities and sharpen their sensibilities, become more creative in the enriched lives they would live by following such principle and perhaps as a result produce truly creative outcomes.

Such a concept apart from being a suitable framework for developing personal creativity also provides a concept of creativity on which a structure for creative teaching can be structured and developed. These basic principles that Gelb has drawn out appear below[53].

5.1. The seven principles

1. **Curiositá.** An insatiably curious approach to life and an unrelenting quest for continuous learning

2. **Dimostrazione.** A commitment to test knowledge through experience, persistence, and a willingness to learn from mistakes.

3. **Sensazione.** The continual refinement of the senses, especially sight, as the means to enliven experience**.**

4. **Sfumato.** A willingness to embrace ambiguity, paradox and uncertainty**.** (literally "going up in smoke")

5. **Arte/Scienza** The development of the balance between science and art, logic and imagination. "whole brain thinking "

6. **Corporalitá.** The cultivation of grace, ambidexterity, fitness and poise.

7. **Connessione.** A recognition of and appreciation for the interconnectedness of things and phenomena. Systems thinking

[53] Gelb used the Italian terms for each of the principles and so we have maintained this procedure.

5.2. Development of the seven principles

In this section we take as our starting point these principles that have been drawn from the example of the life of Da Vinci. We develop our own interpretations of these principles firstly for their general implications for the enrichment of our lives and then more specifically we explore the possible links, implications and applications of these principles to the concept of creativity in teaching.

5.2.1. Curiositá. "An insatiably curious approach to life and an unrelenting quest for continuous learning"

Samuel Johnson the eighteenth century critic, poet and lexicographer is reputed to have said "if one is tired of London, one is tired of life". If as human beings we do not maintain our curiosity about the world around us we cease to grow, to evolve and to develop. We need to keep an ever inquiring and open attitude to life, to continue to be fascinated and intrigued by things and not to allow ourselves to become blasé and see the world through tired eyes and jaded preconceptions. Not that there is any shortage of things to intrigue and fascinate. With the vast quantities of information available and access to ever more we may feel like and indeed need to 'switch off' from time to time from the media and the constant bombardment on our senses. Most of us though find pleasure in a sense of curiosity and take delight in finding out, experiencing and learning new things.

As teachers we need to maintain an ongoing and open-mindedness in both our personal and professional lives. We need to look for new and original solutions, and not necessarily be bound by what we have come to accept as "the" way of doing things. We need to see teaching as a learning experience, to be open to and positively seek out information, new developments, new ideas, and to be prepared to take on board those ideas, try them out, observe the results and act on them.

We need to encourage and foster curiosity and imagination in our students too. We need to find out what they are interested in and make sure that we find opportunities to incorporate their interests into our teaching. We can show our interest in them by responding to things spontaneously as they arise in the classroom, if it seems suitable or interweaving their interests and concerns into our lesson plans. It is sad but far from uncommon to see students being limited and held back by the requirements of a book, a teacher, a vocabulary list, or a programme that everyone is expected to follow without deviation. How can a group of 30 – 40 human beings all need and want the same? Pressurised, disillusioned and stuck 'teachers' often

claim that it is impossible to cater for individual needs and interests in large classes. It certainly is not easy, but unless some decisions are made about ways of catering for individuals in a class at least for some of the time and this is not impossible, then the task of teachers of large, apparently unmotivated classes are likely to remain that way.

Taking into account students' interests pays off in various directions. Not the least being that if students' interests and needs *are* woven into lessons then they are much more likely to remember what they have learnt. In the case of learning languages this would mean better understanding, retention and consolidation of structures and vocabulary if the language input and practice is centred around students interests.

In an ongoing discussion on TESL-L[54], teachers told of their experiences with ESL students involved in story writing and pointed out that when students have some say over the topics and themes to work on in class then they feel ownership of the finished product and never forget the structures and words that are used in the story because it is "their" story.

Any teacher who has allowed students some say in their choice of topic area for at least some part of a course will usually be rewarded with interest, involvement and enthusiasm on the part of the students. The material and the language used to express their ideas will be more easily remembered and the teacher too will be rewarded, perhaps by learning new things in the process. Teachers learning from students is much less likely to happen if the subject matter, materials and way of working is tightly controlled and planned in advance by the teacher in accordance with some previously established programme. It is our opinion that even where programmes are laid down in advance there is still room and a place for work which come out of the students' interests and concerns[55].

[54] Electronic source, TESL-L @CUNYVM.CUNY.EDU

[55] Task based learning approaches provide scope here for teachers who wish to provide choice for students to work on areas which interest them. In our own experience most foreign language teaching/ learning situations and teacher training courses too provide opportunities for student presentations to be built into course work which allow for individual choice and expression. In one recent course we gave a group of 2nd Year University students on a degree course in English Philology free choice of material to record on tape (with the purpose of raising awareness of areas to be worked on related to the elements of spoken English) this is itself was an interesting exercise for both teacher and student, and as a bonus the diversity of sources which the students used for their recordings provided fascinating listening for the wide variety of content and for the insights it provided into the interests of the students. Topics were widely varied and included interviews and dialogues, readings from articles of all kinds, songs, poetry, sections of plays, sections from novels, exercises on phonetics, free speaking and many more. Some combined speaking and singing. Some became totally involved in the overall production and orchestrated their performances with music fading in and out, all in all providing unexpected opportunities for imagination and expression in what started out as an apparently straightforward voice recording exercise.

5.2.1.1. CURIOSITY AND CHANGE

Curiosity implies not just the openness of mind that welcomes new information, new feelings, new insights and new perspectives, but also acting upon that input. We need to consider the new input in the light of what has gone before and then either consciously or unconsciously we accept or reject, if we accept and assimilate the new input to some degree then we will continue to evolve as human beings.

If the things we learn do not change us in some way then they will have served little purpose. So alongside the concept of curiosity runs the parallel of taking on board new things and in the process, evolving to accommodate the new input.

But change is not always so easy. It is all too easy to get stuck in a rut, and the more we follow a previously followed thought track, the more the tendency is to follow it again and again. The procedure becomes automatic and unconscious. The neural connections become reinforced and it becomes difficult to break out and start out on a new track. As Koestler (1989:119) said,

When life presents us with a problem it will be attacked in accordance with the code of rules which enabled us to deal with similar problems in the past. These rules of the game range from manipulating sticks to operating with ideas, verbal concepts, visual forms, and mathematical entities. When the same task is encountered under relatively unchanging conditions in a monotonous environment, the responses will become stereotyped, flexible skills will degenerate into rigid patterns, and the person will more and more resemble an automaton, governed by fixed habits, whose actions and ideas move in narrow grooves. He may be compared to the engine driver who must drive his train along fixed rails according to a fixed timetable. Vice- versa, a changing, variable environment will tend to create flexible behaviours patterns with a high degree of adaptability to circumstances.

5.2.1.2. IMPLICATIONS

The implications for teaching are that learners' natural curiosity, the all consuming curiosity of young children that is sometimes nurtured in the early years of education, but which is so often thwarted and suppressed, sometimes even to the point of extinction must be nurtured. Curiosity and love of learning may need to be rekindled, revived and fanned into a strong flame so that it burns steadily for all learners.

5.2.2. Dimostrazione. "A commitment to test knowledge through experience, persistence, and a willingness to learn from mistakes"

The old and much quoted Chinese saying " I hear and I forget, I see and I remember, I do and I understand" encapsulates the concept of dimostrazione' well. Although a large proportion of learning in schools and universities is based on the type of learning which requires the assimilation of vast quantities of information and facts, usually presented in written form, much of it will be all too quickly forgotten if not quickly reprocessed in some way. Even when the information and facts are reactivated, as for example in examinations, they are often lost soon after the exams are over. Yet for many people this is the only way they have learnt and for want of better experiences, they may find no argument with it. It is true that students used to education systems that put much emphasis on the assimilation of written information do seem able to develop impressive powers of memory and are often able to learn by heart vast quantities of information, but this does not necessarily imply the long term retention of such material. Head and Taylor (1997:25) point out directing their words to practising teachers,

> If you were a successful learner in a traditional school environment where the teacher was 'the expert' and the motivation to learn what he or she already knew was enough for you, you may find it hard to imagine a different basis for structuring your own learning or that of your students. You may like a teacher who takes charge of the learning programme and decides for you what you need to know. On the other hand, if you found it hard to relate what you learned in school to your own personal interests and needs, you will probably be unsympathetic to the kind of teaching that offers an "expert" view. Whichever learning style you prefer, it is important to be aware that learning happens on the inside, and to acknowledge that the choice you are making is not the only possible one. Quite possibly you will find a flexible and sympathetic blend of approaches to be the most helpful.

5.2.2.1. EXPERIENTIAL LEARNING IN TEACHING / LEARNING SITUATIONS: THREE MAIN CATEGORIES

The reference to learning as something that happens on "the inside" carries with it the concept that the learning and the things learnt need to become internalised and part of our experience. Most of us will claim to find it easier to learn some things by actually doing them. Given the instructions for a procedure which contains several

steps or stages, for example, how to write and send an email for some one who has never done it before, might prove an impossible task if they were not able to follow the steps for themselves, make a few mistakes, have to backtrack and try again and maybe again until they have successfully done it for themselves. In the process they will have internalised the necessary stages and unless they never do it again or they are working with a different programme will no longer need consciously to think about the process to follow. Probably we most readily associate this type of 'inside' learning as being more related to skills which require physical involvement and which, if successful is stored in the brain as procedural memory. Being **told,** however clearly, the necessary procedure for riding a bike, or driving a car will never be enough. The skills have to be practised and internalised and if learning is successful the process will become automatic and will not have to be consciously thought about again.

Clearly many learning situations in educational establishments do not lend themselves easily to this type of experiential learning. The reasons are many. Some of them may be valid, some of them real enough, but many more are set up as reasons for not changing the status quo.

Among the most common reasons for claiming that it is not viable or practical to build in more participative and experiential types of learning into classroom situations the following reasons are often cited:

- There is too much information to transmit and not enough time to do it in
- The backwash effect of examinations controls what is done in class
- Classes are too large,
- Classes will become uncontrollable if the usual/ traditional interaction patterns are relinquished, for example (teacher controlling the whole class from the front of the room and everyone working on the same elements at the same time, the so-called 'lockstep ' pattern)
- The teacher does not feel comfortable with forms of teaching that remove the focus and control away from them and towards the learner (Teacher centred approaches rather than learner centred or a balance between the two).

However, where learners are given the opportunity, at least from time to time, to actively participate in classroom activities using the content for doing real things, to be able to reflect on the new information and processes and to relate these to

their own experience and then to talk or write about it (for example in learning journals) then more effective learning may be triggered off. There is much akin here to the concept of experiential learning, which Kolb (1984:38) defines as "the process whereby knowledge is created through the transformation of experience".

Key characteristics of experiential learning, according Head & Taylor (1997:25) are:

- Learning is conceived as a process, not as a series of outcomes.
- The process is continuous, and grounded in the learner's own experience.
- It involves bringing out the learner's existing beliefs and theories, testing them against new experiences and insights, and reintegrating the new, more refined ideas that evolve through the process of examination and reflection.
- It is a process of ongoing adaptation to an environment which is constantly changing.

These characteristics are focused on the learner, but if instead of "learner" and "learning" we substitute "teacher" and "teaching" we have a process which could also apply to teachers and their personal and professional development. It incorporates too, a reflective approach to teaching.

A reflective approach to teaching may help us to seek out opportunities to incorporate the characteristics of experiential learning into our teaching. Across the curriculum there are limitless opportunities for doing so. Here we will mention just three specific areas in which we have been personally involved and in which we suggest that experiential learning forms a vital and integral element. These are:

A. The teaching of English as a Foreign Language.

B. Teaching training / development courses

C. The teaching of art and design

A. Experiential learning in foreign language learning

In the teaching of English as a foreign language or indeed as a second language and where the purported aim is for learners to learn a language to be able to use it for real communicative purposes, then quite clearly it is simply not enough for

learners to learn about how the language works. They also have to be given plenty of opportunities to try out, use and experiment with the language themselves, ideally in as many different situations as possible. Included within this is should be the acceptance that making mistakes is a real and inevitable part of the learning process. Of all areas of teaching, the teaching of languages for real use and communication is one of the most exciting and rewarding for here not only are we teaching a subject, but also a means of communication and thus the content and the process are, or should be naturally intertwined. Here is a golden opportunity not found in the teaching of all subjects for the natural enmeshing of content and process, working with the language, experimenting with it, inevitably making mistakes, but learning in the process.

B. Experiential learning in teacher training courses

In teacher training courses, both pre and in-service, it is absolutely vital that participants are given plenty of opportunities to be directly involved in practical activities themselves. If the focus is too narrowly on theoretical input then many participants may never be prepared or courageous enough to try out ideas 'new' for them when they are themselves in front of a class. Indeed it is often hard enough to convince people that certain activities can be successfully done in real classes even when trainee or practising teachers *have* experienced them for themselves, so what chance is there of breaking out of long established patterns of teacher behaviour if a participative, interactive and experiential approach is not adopted by trainers?

Another factor to consider is that practising teachers do not always take easily to 'new' ideas or techniques. However a positive point to consider is that often those who initially put up the most resistance to change or new ideas are also those who later become the most convinced of the efficacy of the earlier rejected ideas. Resistance to change and challenges to our preconceived views is often very strong. Providing opportunities for people to experience things for themselves, and not just once, but over a period of time, may in the end be the way in which they gradually come to see the value of a technique, approach or activity.

An example from our own experience may serve to illustrate this point. On pre-service training courses on classroom management, we explore different classroom interactions patterns so that the future teachers may feel more confident about incorporating them into their future teaching situations, and at least give them the chance to experience group work from the inside. A surprisingly large number of

students claim to have had little or even no experience of group work. If loop-input techniques are used we have an excellent way of reaching content through process. For example an activity can be set up in which students work in groups in which the task is to discuss aspects of working in groups. A member of the group can be assigned the role of listener and observer of the group action. After the discussion period the observer shows and discusses their observations with the members of the group[56]. Group work situations should also be set up so that students do not always work in the same groups with the same people, who they may know quite well already and whose ideas and opinions they may already be familiar with. Just as important as the group work exploration activities, is the need to provide opportunities for feedback, discussion and personal reflection, which can optimise learning and make it a more meaningful and long lasting experience.

Feedback can be collected in various ways. Class discussion is useful, although may be biased towards those students who feel particularly confident and/or like expressing their opinions in public. Those who are less keen about expressing aloud their ideas in a large class may have interesting and worthwhile contributions to make which will be lost to the general class discussion if other ways of collecting and exchanging feedback from class activities are not provided. There are endless possibilities for collecting and exchanging feedback on classroom activities. Apart from oral contributions we have developed various feedback collecting techniques[57] which can be used in a variety of different teaching learning situations and which also cater for different modes of expression, including written and drawn feedback.

C. Experiential learning in school art and design courses

While this may not seem an area directly related to the main emphasis of this study, that is one centred around the teaching of foreign languages and the training of teachers who will go on to teach languages, nevertheless we touch on it here for our own previous involvement in this area of teaching and for the links that we see between teaching languages and teaching art. Art courses in schools need to allow for a hands-on approach. It is vitally important that students are given chances to see works of art, when possible in the original form, but also in reproductions. It can be particularly valuable if we can provide opportunities for students to see original versions of works previously seen in reproduction, the immediacy of the

[56] For a more detailed description of this activity see Appendix 15.

[57] Some examples of feedback collection techniques and samples of student contributions can be found in Section IV Part 3.

experience of standing in front of an original painting often provides the frisson of sensations and emotion triggered by being aware of the actual brushstrokes of the artist, or the reality of the colours, or the scale of the work, which were only hinted at in reproduction. Students need to acquire different ways of expressing their ideas and also be given the chance to work in different ways with a variety of different media, experimenting, exploring and developing their skills in the process.

While the inclusion of references to the teaching of art and design may seem far removed from the area of teaching a foreign language, on closer inspection similarities are revealed. Good art teaching provides learners with skills and knowledge which allows them to go beyond the mechanical copying and reproduction of the work of others. Similarly, good language teaching should provide learners with the knowledge and the skills to move beyond the mechanical reproduction of language and allow and encourage them to experiment and find ways of using the language and skills, to express themselves creatively. Both subjects are languages which require the acquisition of knowledge and skills, both also should permit and encourage personal expression and creativity.

From another point of view, art and visual expression[58] have relevance in the teaching of languages. It can provide resources which have aesthetic and emotional appeal, it can touch the senses, it can be interpreted in different and personal ways and can trigger, just like poetry and good prose, personal associations and personal creativity.

In the three specific areas we have mentioned here as in many other areas, we believe that teachers need to build in opportunities which help students to assimilate and learn for themselves by having the opportunity to experience and relate new material to their already existing knowledge and in addition to reflect on those experiences. Wherever and whenever we can, we need to put emphasis on the 'doing' stages of learning, not just talking about doing it, reading about it or having someone lecture us about it.

5.2.3. Sensazione. "The continual refinement of the senses, especially sight, as the means to enliven experience".

The emphasis Gelb puts on 'seeing' comes from the importance of sight in the creative processes of Da Vinci, who with his sharp eye, open mind and acute powers

[58] See Appendices 21 and 24 for some example of activities for use in foreign language teaching and teacher training which involve visual stimulus or visual/graphic representations and are designed to encourage creative responses in learners.

of observation, illuminated details and aspects of the natural world for himself and others. Many people go around unaware of what is around them. We see what we expect to see and what we have become accustomed to seeing. Until something jolts us out of our complacency the glaringly obvious may be hidden from us. For all of us, our lives are enriched when we develop our sensory acuity, when we become more aware of all our senses, when we take time out to enjoy the scent of a flower, feel the texture of a cool, smooth stone, listen to a piece of music to the exclusion of all else, feel the breeze on our face, or taste an exotic fruit

Scientific research tells us that not only are our lives enriched spiritually by paying more attention to our different senses, but that the feelings provoked and triggered by paying attention to our emotions may even go some way to minimise the disastrous effects of brain diseases like Alzheimer's. Pert in *The Molecules of Emotion* (1989) has demonstrated the power the emotions have on the human body and its metabolism, and especially on the human auto immune system, and has even declared that she can no longer make a strong distinction between the brain and the body. Following this line, Capra (1997: 277) observes that,

> Ultimately this implies that cognition is a phenomenon that expands throughout the organism, operating through an intricate chemical network of peptides that integrates our mental, emotional and biological activities.

Developing and refining our sensory acuity may enrich and make all our lives more memorable in our personal lives as individuals. The implications for teaching are also important and may have far reaching effects and benefits on learning but are far too often ignored, overlooked or unrecognised.

5.2.3.1. IMPLICATIONS OF THE SENSAZIONE CONCEPT FOR CREATIVITY TEACHING

It is curious that the further one moves away from the education of young children where creativity is positively encouraged so does the level of visual and other stimulus in the classroom diminish until in secondary schools and universities students are studying in rooms devoid of colour, with bare walls, and where the most common form of input is the teacher's voice or the printed page. Good primary school classrooms are lively, stimulating places, full of colour, the walls are tapestries full of visual delights; drawings, paintings, collages and mobiles, charts and maps. Children experiment and work with different medium and media and are encouraged to bring interesting objects into the classroom.

Why do secondary school classrooms and university lecture rooms and seminars have to be so dull, uninspiring, impersonal and seem destined to limit sensory awareness and thwart creativity? Seeking ways of making the learning environment more attractive can involve students as well as teachers and may be well worth the effort. Business and other areas which seek creative outcomes from their employees are becoming more aware of the effect that the working environment has on one's ability to generate ideas and come up with creative solutions. Publications[59] on developing personal creativity emphasise the importance of creating a working environment which is conducive to creativity

By contrast many educational establishments totally ignore this aspect which may have a surprisingly important effect both on students' learning and creativity. Economic restraints are probably the most likely deterrent to changing the 'status quo'. But spending money may not necessarily be the only way to make a change. There are countless ways in which classrooms in secondary and tertiary educational establishments can be made more conducive to creating a pleasant, motivating and visually stimulating atmosphere. This is a useful area to follow up with trainee teachers.

In courses on classroom management we have explored this topic with students and the ideas generated are worth further consideration. For not only do we have the possibility of using posters and pictures on the wall, classroom walls can also be brightened up on a temporary basis by making this an extension of the teaching / learning continuum. Students work can put work on walls even in rooms where one is not supposed to deface the classroom walls by the use of blu-tak, which can be put up and easily removed. Writing, prose and poems, visual presentations, projects, mindmaps are just a few of the possibilities[60].

Viewing classroom walls as a resource should also remind us that the work that students produce does not always have to be written, or if written, then not always presented in linear form. But as if in reflection of those classrooms in secondary school and universities students are usually expected to present their work in written form and rarely given any other choice. While students obviously need to be able to present written work clearly and concisely and respecting different styles and registers, there should also be opportunities for students to present their work in

[59] See for example Cameron 1996, Cave (electronic source) Herrmann 1996.

[60] For further ideas on this topic see appendices 9, 21 & 24, which look at ways of making classroom environments more visually stimulating, includes examples of students' work which has been displayed on classroom walls and suggests activities which use the classroom as an additional teaching resource.

other ways. Giving students opportunities to break out of the long established patterns of written linear presentations may produce pleasant and enlightening experiences for both teachers and learners.

The teaching of young children puts much emphasis on the use of multi-sensory input, but then this is generally phased out in favour of 'chalk and talk' and the lecture mode of presenting information, and those who may find new material to assimilate if more material was presented visually or if the new input was presented in such a way that there were opportunities for students to move around. An example of this in language teaching and learning is the 'Total Physical Response' approach, but there are many other ways in which movement and physical expression in the classroom might help students to assimilate new knowledge. To assume that everyone will learn equally well from a largely spoken presentation is to overlook the fact that even if we are not consciously aware of it, most people have a preference for or are able to assimilate new information better if it coincides with their preferred input mode. This is not to say one should not experience other modes of input, but does imply that teachers need to take into account different learning input preferences by providing a variety of modes of input.

Not everyone is aware of their preferred input modes. They may have had a style imposed upon them, it may suit them or not. They may have become accustomed to the preferred teaching styles of teachers and lecturers and be unaware that they might be more successful if they had more opportunity to meet new information or present their own work in different sensory modes. Teachers often unwittingly impose their own preferences on learners or perpetuate the way they themselves were taught. Some students evolve their own strategies for assimilating and learning new material in the face of approaches which are not compatible with their own learning style. Many others may fall by the wayside. In an informal research project on learning styles and strategies[61] which we carried out with fifth year students of English Philology Studies in the University of Jaén, students reflected and reported on their learning experiences bearing in mind their own learning styles and strategies. This study mainly revealed the lack of attention paid to such areas by teachers and how students evolved more or less successfully their own ways of dealing with and learning input.

Amongst others Revell & Norman 1997, Lawlor 1988, Head & Taylor 1997 have suggested simple, entertaining and yet useful ways of finding out more about one's

[61] Some student responses from this study are shown in Appendix 27.

learning styles and preferred sensory modes. These can be done by teachers and trainee teachers for themselves. They are especially useful on teacher training and teacher development courses. They can also be incorporated into a wide range of learning situations so that learners are made more aware and work to find ways of making their learning more efficient for them.

From our experience using activities like these in classes or in pre-service and in-service teacher training courses is always worthwhile. Some people are always surprised at the results of such activities and most end up learning something about themselves and their preferred learning input modes.

A multisensory approach to teaching and learning makes the learning process more memorable. It makes stored information easier to locate and retrieve. It also utilises the potent associative power of the mind. It is thus heavily implicated in creativity.

While the concept of 'sensazione' might be embodied in the aspects we have already mentioned another important implication for teaching is that it is closely linked with how students feel in the classroom, how they view themselves as learners and how they perceive they are treated by teachers and fellow students. Thus the concept of 'sensazione' is also closely related to other important areas in teaching and learning like affect, rapport and empathy, which all have the power to influence positively or negatively one's response to learning, to the ability to assimilate and self esteem and confidence building and as a consequence, to one's creativity.

Learners are more likely to remember new input if it has been presented in a way which draws on as many of the senses as possible and taps into emotional responses too. New information is made more memorable and therefore learnable, if accompanied by, and absorbed through different and varied sensory input.

"Sensazione" has connections too with approaches to teaching like Suggestopedia, where music, comfort, relaxation are seen as important for creating the conditions for learning. We can also view "sensazione" as being closely linked with how students perceive they are treated by teachers and fellow students. Affect in teaching, rapport and empathy all are related to feelings and emotions and have the power to influence positively and negatively one's response to learning, to the ability to assimilate and self-esteem and confidence building. If we feel anxious and threatened learning is much more difficult.

It is also closely linked to motivation. Students who feel at ease in the classroom are more likely to experience a shift in the focus of their motivation from that imposed from outside, for example, the need to pass an examination to obtain a

qualification, to a more internally focused force (intrinsic motivation) of studying the subject and finding a pleasure in doing so regardless of the final piece of paper.

The concept of rapport is fundamental to NLP, being described as one of the pillars of NLP, but rapport has always been an intrinsic part of any classroom where students and learners have a good relationship and where people matter. It seems to be just the element which is lacking where the focus is on subject and not on learners or the learning process. Closely related to empathy, it is a natural requisite of good communicators, who are able to empathise and understand how people feel.

A multisensory approach to teaching and learning makes the learning process more memorable. It makes stored information easier to locate and retrieve. It also utilises the potent associative power of the mind. It is thus heavily implicated in creativity.

This is a rich area for exploitation if we are interested in developing creative approaches to teaching and learning. In particular we consider that the areas mentioned below are closely connected with 'sensazione' and are therefore worthy of further exploration for their important links with teaching creatively and creative teaching.

- Multi-sensory input
- Learning styles and strategies
- The classroom environment
- NLP
- Suggestopedia
- Multiple intelligences
- Affect in learning

5. 2. 4. Sfumato. "A willingness to embrace ambiguity, paradox and uncertainty"

So conditioned are we, that at the mention of Leonardo Da Vinci most people immediately think of "The Mona Lisa'. So too will they probably summon up the image of the mystery of her smile which has provoked much discussion and speculation over the centuries. A smile which hovers,

> on the cusp of good and evil, compassion and cruelty, seduction and innocence, the fleeting and the eternal. She is the Western equivalent of the Chinese symbol of yin and yang. (Gelb1998: 146)

While this image may be eternal we nevertheless place it clearly within a historical context. So what relevance does this concept of sfumato have to do with our lives at the beginning of the twenty first century? In a time of rapid change and development in technology which affects not only the world of industry and business but also whether we welcome it or not in our personal and everyday lives we have to move towards an acceptance of ambiguity, paradox and uncertainty. We may not like it, we may do all we can to clarify and organise our lives to reduce the effect of so much conflicting information on our lives. Nevertheless acceptance of ambiguity in our lives may be one way of coming to terms with it. It may even become a requisite for getting on in the world. The world of business may be one area.

> In the 1980s, the American Management Association published a study concluding that the most successful managers were distinguished by 'high tolerance for ambiguity and intuitive decision-making skills'. Now as the pace of change accelerates" tolerance for ambiguity is no longer sufficient; ambiguity must be embraced and enjoyed. (163)

But business is not the only area where we must accept that ambiguity exists. Within education we have to accept that issues are not always clearly black and white. We need to realise that we cannot deal with all subjects and all students in the same way. We need to accept their differences and as far as possible accommodate this into our teaching. What works with one group may not work with another. But also we need to foster and develop tolerance of ambiguity and paradox in our students.

5.2.4.1. IMPLICATIONS OF THE SFUMATO CONCEPT FOR CREATIVE TEACHING

Responding to questions as to what elements characterise "creative teaching"[62] some students cited the need for teachers to allow students their own interpretations rather than imposing their own view or that of some learned academic on learners. Gelb suggests that one way parents can foster this element of ambiguity in their children is by nourishing it with games, puzzles and stories. Parents can tell their children the same stories but make up different endings each time. As well as

[62] See Section IV part 1 for an analysis of students' responses to this question.

encouraging a delight in the unknown, parents are also stimulating their own imaginative powers.

The parallel for classrooms is in setting up situations where a degree of ambiguity is allowed and even encouraged in interpretation, production and representation. Important too, is the creation of relaxed and supportive working classroom environments where open-ended responses are encouraged and given credit. The most obvious area for this might be in the use of materials and follow up activities which appeal to the senses like art, prose, poems and, music.

In the area of language teaching both as a L1 and as a foreign or second language while a sound knowledge of grammar and syntax will undoubtedly make for clearer expression of one's ideas, we also have to instil in students the awareness that there is not, just as there is not their own language, just one way of expressing an idea or an utterance.

One can sympathise with how a student may feel more secure in the knowledge that this is how my teacher told me to say it, and so this is how I say it. But then what happens when that student meets other ways of saying the same thing, ways that are decidedly different or even which their teacher had told them was incorrect. One can sympathise too with non-native teachers of second or foreign languages who may feel less than secure in their knowledge of the target language and thus feel a need to control the language input of their students for fear of being exposed. Yet perhaps here one solution may be to tell students that there are other ways although in their particular class they are going to learn a limited range of possibilities.

Much here depends of course on students' expectations of teachers. In some teaching environments the idea that a teacher does not know everything about a subject can undermine students' respect for a teacher. These types of beliefs have much to do with traditional approaches to teaching where the teacher was and indeed still is seen as the fount of all knowledge. May be this is one reason why teachers insist on the limited uses of the language, they are then able to control it at least within the confines of their own classrooms, the problems come later when students are exposed to other forms.

Not everyone feels ease with ambiguity and seemingly 'flexible' rules. These are certain types of language learners like to feel secure in the knowledge that they know the rules and the rules are inflexible and that they have an unchanging support to hold onto. These are often the types of learners who insist on having everything translated. They hope to be able to find direct equivalents between their own and the target language and are distinctly upset when this cannot be done. These are usually people who are by nature rather inflexible in their own ways of thinking and

or people who have been accustomed to traditional ways of teaching and learning where ambiguity of interpretation has been positively discouraged.

People of this type and those who feel a need to rely heavily on rules may not find the tide of evolution in the use of the English to their liking. The tide however will not be held back there is no King Canute to hold back the tide of change. English is moving so rapidly. It seems ready to accommodate expressions and vocabulary from other languages, to break and bend rules, to invent and reinvent the language. The advent of electronic mail and chat lines are already leading to new, inventive, informal forms of English, which lie somewhere between spoken and written language forms, and which are helping to create a strange, new hybrid form of English.

Anyone who has ever taken part in online chats on the Internet, cannot fail to notice how easily one falls into using simplified patterns and forms, almost spontaneously generated, which perpetuated and consolidated by the speed of the exchanges very quickly become part of one's personal repertoire. This type of communication seriously challenges what has been presented to students as the main difference between spoken and written language, i.e. that spoken language in everyday situations is usually spontaneous, while by comparison writing requires more deliberation and thought and usually remains as a clear and unchangeable written record. The distinction lies of course mainly in the difference between formal and informal writing. In formal writing, although we may change or modify our ideas, hesitate, and repeat ourselves, none of this will show in the final draft, thus distinguishing itself from a piece of writing which looks more like a transcript of a spoken conversation. As the use of the Internet is growing so rapidly both for business and personal communication and will surely continue to do so, this is an area we cannot ignore.

The type of quick on line conversations mentioned above where spontaneous invention occurs and instant interpretation is required if one is not to get left behind has about a definite element of creativity. It also requires quick and flexible thinking, a sense of humour and the ability to keep several strands of thought in play, all functioning at the same time. It has much to do with language play in which as children we all indulge but also which we take with us and hold onto in adulthood. The use of puns and rebuses [63] are two of the main elements we have noticed in the live language of the Internet.

[63] Example of a rebus; often the sentences make sense only when read aloud in a certain way as in this example: YYUR Too wise you are, YYUB Too wise you be, ICUR I see you are YY4ME Too wise for me. Examples of rebuses often appear in children's books and comics where drawings are combined with the use of one or two letters, which have to be added or taken away from the word suggested by the drawing in order to decipher the message. Logograms are systems of writing where graphemes like for example; + = >< Ö≠ Ø± etc., represent words.

Crystal (1998) makes a strong claim for the importance of the ludic element in language from childhood to adulthood. He points to the importance of this ludic element and that in childhood, speech play is vital to the acquisition of adult verbal art." (9). The desire and the ability to play with language is obviously still present in adulthood and Pinker (1994) has even maintained that when people avoid playing with language it is a sign of communicative breakdown or even of pathology.

'Playing' might be interpreted in many ways, but if it brings with it fun, enjoyment and language development and fosters the creative aspects of a language use then it should be incorporated into foreign language teaching where it may also help to breakdown the concern many learners have of always producing a completely correct response and of being frightened to speak in class in case they make a mistake.

These then are some of the areas which might incorporate the concept of 'sfumato' into teaching. Areas which are related to the "sfumato" concept and which we believe are relevant for creative teaching are suggested below.

- Preparing students for ambiguity and paradox. As teachers the need to accept these elements in out students and find ways of dealing with them.
- Building into teaching, situations and activities that allow for and encourage different and personal interpretations, production and representations
- Incorporating ludic elements into teaching in general and in particular into language teaching

5.2.5. Arte/Scienza The development of the balance between science and art, logic and imagination. Whole brain thinking".

Gelb has made a parallel between the marrying ofn'Arte/scienza' combined in one concept, with the two hemispheres of the human brain. Research into the left and right hemispheres of the cerebral cortex of the human brain, of which the Nobel prize winning research of Roger Sperry is most well known, revealed two main groups of processes associated with the left and right brain hemispheres. In general it seems that the left brain deals with logical processes and analytical thinking, while the right brain processes more intuitive, imaginative and 'big picture' thinking.

The light that neurological research has shed on how the two hemispheres of the brain seem to work is not of course a new discovery. Throughout the ages and in different cultures the duality or two-sidedness of human nature has always been an issue. Philosophers, teachers and scientists have long postulated the idea that there

are two parallel "ways of knowing". According to Taoism, the equilibrium of the universe is maintained by the interplay of two forces that together contain all the alternating forms of the creative force of the universe.

> These forces are expressed through the two Great Powers, the yin and yang, the alternating forms of the creative force as it is manifest in the world; they are the primeval substance in differentiation, the yin the physical, emotional, cerebral, inertia, the square; the yang the intelligence, energy, the spiritual, the circle. They are the passive and the active, resistance and generation, kept in proportion to each other by the energy expended. Everything involved in the yin-yang concept implies that which is inseparable, unable to maintain itself, except in relationship. They are two aspects of one and the same power, but in polarity as distinct from absolute duality. (Cooper 1981: 13)

Many writers and thinkers have attempted to categorise or list the main characteristics of this two-sided quality of the human brain and how it manifests itself in thought processes. We give two examples here. One from modern times and another from an earlier and oriental culture

1. Bogen (1972)

Intellect	intuition
Convergent	divergent
Digital	analogic
Secondary	primary
Abstract	concrete
Directed	free
Propositional	imaginative
Analytic	relational
Lineal	nonlinear
Rational	intuitive
Sequential	multiple
Analytic	holistic
Objective	subjective
Successive	simultaneous

2. From the 'I Ching', another kind of duality is expressed through the complementary elements of Yin and Yang

Feminine	masculine
Negative	positive
Moon	sun
Darkness	light
Yielding	aggressive
Left side	right side
Cold	warm
Autumn	spring
Winter	summer
Right brain	left brain
Emotion	reason

In Da Vinci's work art and science were always closely intertwined. The art historian Kenneth Clarke began an essay on the interdependence of the two disciplines thus,

> It is usual to treat Leonardo as a scientist and Leonardo as a painter in separate studies. And no doubt the difficulties in following his mechanical and scientific investigations make this a prudent course. Nevertheless, it is not completely satisfactory, because in the end the history of art cannot be properly understood without some reference to the history of science. In both we are studying the symbols by which man affirms his mental scheme, and these symbols, be they pictorial or mathematical, a fable or a formula, will reflect the same changes. (Quoted in Gelb 1998:166)

Da Vinci's work is always a perfectly balanced marriage of art and science. His scientific studies of human anatomy express the beauty of the human form, his sensual and imaginative drawings of structures and natural phenomena, explorations into ways of seeing and understanding, paved the way for scientific advances.

5.2.5.1. IMPLICATIONS OF THE "ARTE / SCIENZA" CONCEPT FOR CREATIVITY

There is a clear message encapsulated in the work of Leonardo for all of us, both in our personal and professional lives. Most of us tend to be predominantly either left or right brain dominant, whether we are aware of it or not. Not everyone is aware, but there are many examples of tests which one can take to ascertain if one is more left or right brain dominant from the light-hearted to the more serious. The light-hearted can be fun but also useful in making us aware of influences on our behaviour and ways of working which we may never have considered before. Similar tests are often used by companies as part of a selection process for new employees.

Tendencies to be either left or right brain dominant are part each person's psychological make up and are immutable. However this does not mean that we should just accept it and leave it at that. Most education systems still favour a left brain approach to teaching and learning and so individuals who are left-hemisphere brain dominant tend to do well at school but fail to develop their creative capacities, while individuals who are right-hemisphere dominant brain often feel guilty for the way they think and are frequently viewed as having learning problems.

We believe the implications from the linked concept "arte/scienza" are many. In simplified terms the left brain is related to the logic of science and the right the more intuitive so if we can work towards balancing the two then we may be able to awaken our full potential, become more ordered and systematic if we are right brain dominant and more intuitive and imaginative if we are left brain dominant.

In education we need to be more aware that all learners are not the same. There are those who do feel at ease or who have trained themselves to work fairly comfortably within teaching situations which are directed towards left brain type processes. Then there are others who experience learning as a struggle either consciously or more likely unconsciously, trying to accommodate themselves to a system which favours left brain type learners.

Some research we carried out into learning styles and strategies of students[64] included the question, " Have you ever given any thought to your learning styles and the ways you personally learn?" produced responses, some examples of which we include here:

- "In subjects where I find the activities more comfortable, I find them easier. Different subjects provoke different strategies"

- "Sometimes I think,—'what is the best way to learn?' But I haven't paid serious attention to it yet. I wonder about my learning style and think that sometimes we learn under pressure and this makes learning more difficult. When I fail an exam I wonder if I chose the right method.

  Sometimes we learn under pressure and this makes learning more difficult".

- "I realise that I can learn actively or passively without noticing it, sometimes I wonder if I had used other strategies I would have improved my learning".

[64] The students involved were 5th year students of English Philology , in the subject ' Didáctica del Inglés en el Aula, in the final year of a now phased out degree course. For a more complete collection of student responses see appendix 27.

- "Sometimes I think that my way of studying is not the best way"
- "No, I'm not very conscious of it. It just happens. It's a miracle really!"

These examples illustrate some points we have made earlier;

- These students, like many of us, are not really aware of their own learning styles.
- Although they have the feeling things could be better they don't know how to go about improving them.
- When they feel comfortable with the activities, learning is easier
- When things don't go right (for example a failed exam) their learning strategies are questioned.

Apart from telling us something about students' awareness of their learning styles, these responses also have relevance for other areas of this study. For example the importance of 'affect' in teaching," when I feel comfortable with an activity", "sometimes we learn under pressure and this makes learning more difficult" and related to pre-conscious learning, "when I learn passively" and I'm not very conscious of it. It just happens. It's a miracle really!"

Teachers should be aware of imposing their own learning style on their students or even inherited styles which their teachers have imposed on them, even if they were not compatible with their own. The ghosts of teachers past control us more than we may realise.

Gelb (189) writes about parents with more than one child who have become aware that their children have different 'brain'styles and if they are not vigilant they as parents tend to pass on their own dominant brain mode. He suggests that just as some companies try to build balanced brain teams in the work place so is it important too at home. He suggests ways in which we might support children in developing the skill of "arte/ scienza", that of both hemispheres of the brain working together in a more balanced and symbiotic way:

> "If the child shows a preference for right brain thinking, tackle history lessons by acting out scenes from the past".
>
> "Approach mathematics by writing our theorems and equations in bold colours".
>
> "If your child's orientation is more left brained, help her to develop balance by emphasising art, drama and music appreciation"

> "Whatever your child's brain dominance she will become more balanced if you encourage her to use mind maps: focus on nurturing your child's ability to 'learn by heart' by making memory and mind maps of schoolwork".

These few examples could be expanded to many other areas of the curriculum and would be perfectly suitable for assimilation into school teaching programmes. While here the suggestions seem to be aimed at children of primary school age, we see no reason why they could not also be extended as part of good teaching practice in secondary school education.

Keeping up to date with developments in education we may get the impression that educators are becoming more concerned with the role of intuition, imagination and creative thought, yet most school systems are still structured in left hemisphere modes of organisation. Teaching programmes are sequenced and students proceed through grades in a linear fashion. The main subjects on the curriculum are still verbal and numerical, left brain subjects like reading, writing and arithmetic.

Edwards (1999) whose interests mainly lie within the area of art teaching also concerns herself with general educational issues, here directs her thoughts towards the American educational system, but which one cannot help but feel might apply to many other countries.

> The right brain – the dreamer, the artificer, and the artist- is lost in our school system and goes largely untaught. We might find a few art classes, a few shop classes, something called "creative writing" and perhaps courses in music, but it's unlikely that we would find courses in imagination, in visualisation, in perceptual or spatial skills, in creativity as a separate subject, in intuition, in inventiveness. Yet educators value these skills and have apparently hoped that students would develop imagination, perception, and intuition as natural consequences of training in verbal, analytical skills. (36)

Before concluding our brief overview of the concept of sfumato and some its implications for teaching, we will mention one powerful method for cultivating a synergy between Arte and Scienza, that of mindmapping.

Mindmapping is a whole brain method for generating and organising ideas. By comparison to the traditional linear method for generating and organising ideas, mindmapping emulates the non-linear way in which the human brain works when generating ideas. The basic structural unit of brain function is the neuron. Each of the billions of neurons that the human brain possesses, branches out from a central nucleus, each branch or dendrite is covered with nodes called dendritic spines. As we think, electrochemical information, neural transmitters send information across

the synapses, the minute spaces between the dendritic spines. Seen under a microscope a neuron and the dendrites that branch out from the cell nucleus, resemble a tree form. Our thinking processes are a function of a vast network of synaptic patterns.

Mind maps[65] are graphic expression of these natural patterns of the brain. The advantages of mindmaps are that unlike linear note making systems, they allow you to get your ideas out in a way which follow the natural thinking processes of the brain. Impressions, key words and images float into the mind one associating with the next. Our ideas do not usually come out in the order in which we may finally use them. Trying to organise one's thoughts to fit into pre designed scheme stifles the generation of ideas. Mindmapping also allows one to break out of the usual pattern of one colour (black) and one form (linear) which can lead to monotony and the deadening of inspiration. They exploit the brain's capacity for colour, dimension, synthesis, rhythm and image. The note making and taking styles of many of history's creative people have featured branching organic structures complemented by sketches, doodles and key words. This whole brain method of mindmapping which was picked up and developed by Buzan (1996) largely inspired, it is said by Leonardo Da Vinci's approach to note taking, has many applications in our personal and professional lives, not the least that regular use and practice can help one to become a more balanced thinker, linking and bringing into play both hemispheres of the brain.

We believe the main implications of the "arte/scienza" concept for creative teaching are in the recognition of the tendency for left and right brain dominance, the need to cater for these tendencies without insisting on one or the other as teaching has done and still does, and thus in liberating learners and teachers from constraints of focusing mainly on left brain type input and learning. This involves working towards achieving a balance which is encapsulated in the concept of whole- brain approaches to teaching and learning.

5.2.6. Corporalitá. "The cultivation of grace, ambidexterity, fitness and poise".

While the focus of 'arte /scienza' was on aiming for a balanced use of the two hemispheres of our brains, a 'whole-brain' approach, 'Corporalitá' reminds us that

[65] We look at the mindmaps and related concepts in Section III, part 3. Some examples of mindmaps are given in Appendix 18

our minds and bodies are connected; things physical affect our mental state, our emotion state affects our physical performance. Corporalitá can be seen as a 'whole-person', a mind and body approach. Embracing the complete concept of Corporalitá involves elements like taking regular exercise, having a good balanced diet, and developing body awareness which begins with honing the kinaesthetic sense.

While we recognise the importance of all these elements, for the purposes of this study we have focused on those elements which can easily be incorporated into teaching, which will lead to more balanced learning situations and help to build learning environments which we think are conducive to creativity.

5.2.6.1. IMPLICATIONS OF "CORPORALITA" CONCEPT FOR CREATIVITY AND CREATIVE TEACHING

In teaching we are too often concerned only with mental processes and the feeding in new information, which we expect, or would like students to be able to assimilate, learn and be able to reproduce for examinations. Yet if we pay more attention to the interrelated functioning of mind and body we may find the teaching and learning processes may be much more efficient.

Let us imagine a fairly normal classroom picture. A class of thirty or more people sitting at their desks or in rows, breathing in stale air, thin on oxygen, for a lesson of at least fifty minutes. During that time they remain seated and more often than not, always in the same place. Students may have come from other classes that stimulated them or bored them, where they had problems concentrating or where they felt tense, angry or frustrated, and then they come in and sit down again in another room, or the same one, and the whole cycle starts all over again. As the day wears on interest and concentration become more and more difficult to maintain even when attitudes towards a subject are positive. If they are less than positive or even negative they are unlikely to change unless something intervenes to help them change state.

It only takes a little awareness and thought on the part of teachers, a short time taken out of the time available to break these predictable patterns in classrooms. Time which some may complain makes even less time for the all important subject teaching time and which can be ill afforded. But time spent on short activities which re-energise and change state are worth every minute we spend on them in terms of re-charged energy, concentration and interest levels in students and teachers too. All teachers must be aware of the deadening effect of trying to teach students whose bodies are in the classroom but whose minds and interest are elsewhere. It drains

energy and, missing the vital spark of a two way process of real student teacher interaction we can become automatons, reduces us to teaching what is in the plan in a dead and lifeless way. Recharging energy levels through various activities, relaxing students who are nervous or physically tense (relaxing the body relaxes the mind and can make it more receptive) involving students in activities where action is implicit all have positive repercussions in the classroom, for everyone involved.

During a lesson, providing opportunities for students to get up and move around does not necessarily result in the chaos many teachers may fear. Nor are traditional type classrooms with little free space and furniture fixed to the floor reasons for not planning in activities which involve action in classes, even if it is simply standing up and doing some simple physical activity, like stretching or remaining seated and doing some physically relaxing activity.

It is also easy to build into lessons, short sessions where students have to get up and move around the class for example:

- to look at and read feedback comments, short poems, or visual presentations, which have been put up on the classroom walls,
- to take part in mingling activities
- to take part in role plays
- to take part in group work

In the meantime they have stretched their legs, had a chance to move around and, in our experience, when they return to their seats their levels of interest and involvement have improved and they are more able to concentrate once again. It is worth bearing in mind that sitting in fixed usual positions tends to generate fixed usual responses.

In the section on 'sensazione' we touched on the need to plan into our teaching, activities which allow students to draw on all their senses. For some learners if not most, being involved in activities which require movement will make the learning process easier, the material to be learnt more memorable. Some teaching approaches like Total Physical Response consciously draw on this precept, of tapping into the kinaesthetic learning modes. This approach is most often associated with teaching children and, like many other areas is sometimes deemed unsuitable or demeaning in some way for older learners. In our experience if the content level is suitable to the age of the learners there are very few activities and approaches which can not be used with learners of all ages and levels.

The main difficulties to be overcome are more related to the fact that most learners have never been asked to take part in any type of physical activity in a classroom, be it a relaxation type activity or a re-energising activity and at first may feel a little strange and self conscious doing such things in the company of others. However, most students, if introduced gently to the idea and given the rationale behind such activities will gradually overcome their inhibitions. Some may surprise us by taking instantly to such activities and clearly enjoying them. In our experience even for those who had initial reservations, most students realise the positive benefits of taking part in such activities and acknowledge the positive effect it has had on their learning.

We have looked briefly at some areas implicit within the concept of corporalitá and which we believe are of particular relevance for teachers who are interested in developing and fostering learning environments where effective learning can take place and where learners are encouraged to achieve their learning potential. "Gaining access to the reserve powers of your brain means becoming aware of the close interconnection between brain and body". Lawlor (1988: 43)

Dennison and Dennison (1996) offer a compendium of techniques for whole brain learning (linking and balancing left and right brain hemispheres) through movement, which they claim is the key to effective learning these techniques are suitable for all ages. We have used some of these techniques with our students, including university students who have sometimes been initially surprised and amused, but once familiar with the techniques, have been keen to repeat them and benefit from them. Similarly we have seen these techniques used successfully with groups of Spanish businessmen studying English who have found them beneficial, amusing re-energising and who happily find excuses to repeat them.

In this section we have looked at the relevance of 'Corporalitá' in helping to create effective learning conditions. These are focused on the importance of movement in the learning process and in its function in recognising the close interconnection between mind and body in promoting effective learning and accessing the powers of the brain. Creative teaching needs to tap into the creative potential of teachers and students and this aspect provides us with another potent tool, yet one which we feel educators and teachers frequently overlook or ignore.

5.2.7. Connessione "A recognition of and appreciation for the interconnectedness of things and phenomena. Systems thinking".

Imagine a stone thrown into a still pond, the water ripples out in a series of widening circles. Gelb suggests that the ever-expanding circle is a vivid metaphor for the

concept of 'connessione', whereby everything is affected by and influences everything else and forms part of the whole. Taoist thought also has something to say on this theme.

> The body is an example of the one in many, multiplicity in unity, no part being able to function without the others, and modern thought now recognises increasingly the interaction and interdependence of body and mind; health now becomes more and more a matter of wholeness, and a break in the wholeness, that is dis – ease, is recognised as being often psychosomatic. There is no such thing as separateness, either physically or mentally; things which appear separate actually combine with other existences, events, causes, in an unavoidable, inevitable and necessary relationship, merging into each other, giving rise to one another to the extent that it is impossible to lift a finger without troubling a star. (Cooper (1981: 20)

It is said that Leonardo Da Vinci's notebooks, full of sketches, observations and notes were very disorganised. Researchers have found them difficult to work on, as he never provided a table of contents, an outline, or an index. He wrote his notes apparently in random fashion, frequently repeated himself and seemed to switch from topic to topic with ease. Others have delighted in them for revealing his sense of the interconnectedness of all things, showing his lack of a need to organise his ideas in linear outlines or in neat categories. It is certain that by not imposing an order on all his observations, he created the conditions whereby underlying structures and concepts were revealed to him. The sheer abundance of his ideas, observations, notes and drawings allowed the emergence of previously unseen patterns and common forms. These allowed him to synthesise and juxtapose, to play with the elements that had come to his attention. In this process insights were revealed to him and creative solutions suggested.

The processes by which we form hunches and hypotheses, where we have a strong conviction about something as yet uncrystallised, which has emerged in ways which often we are unable to track down and which sometimes, but not always, result in productive outcomes, sometimes known as intuition, seems to result from this type of process. In this respect Claxton (1997) has suggested,

> Intuition works best in situations that are complex or unclear, in which the information that is given may be sketchy or incomplete, and where progress can only be made by those who are able to go beyond the information given, are able to draw upon their own knowledge to develop fruitful hunches and hypotheses.

And continues that while it might be necessary to go and collect more 'data', the creative idea comes from,

> bringing into maximum contact the 'problem specification', the 'data', and one's own store of experience and expertise; allowing these to resonate together as intimately and as flexibly as possible, so that the full range of meaning and possibility of both current data and past experience are extracted. The good intuitive is the person who is able to make a lot out of a little. (72)

Serendipity is defined as 'the talent for making pleasant and unexpected discoveries entirely by chance'[66], and 'the natural talent that some people have for finding interesting or valuable things by chance'[67]. Serendipity [68] and intuition seem to be close cousins, for the hunches and revelations that intuition can bring often seem to come or emerge by chance, just as do the chance discoveries of serendipity. In our experience this concept or phenomenon seems especially relevant to libraries and bookshops. Many libraries, which have now thankfully changed, used to require students wishing to take out library books, to present themselves at a small window with the title of the book they were interested in with the title of the book and the librarian would then disappear to search for the specific book. If the book was available the student was in luck, if not they would have to repeat the procedure another day. 'In luck' because they did at least get the book which had been recommended to them, but perhaps not so lucky because by not being able to get their hands on any book apart from the requested one they missed out on that wonderful and so often fruitful activity of browsing, which in our experience so often produces unexpected treasures, snippets of information, insights, references to other books which although we were not apparently seeking them jumped out to catch our attention, either directly related to the area we were interested in, or indirectly, or at the time seemingly irrelevant but which later revealed itself to provide a useful insight into some as yet undefined area of enquiry.

If we only ever seek what we are looking for in a library under the specific titles we have been given, then we are likely to miss out on those chance discoveries which we may like to call examples of serendipity. A reminder that if we always concentrate

---

[66] Oxford Advanced Learner's Dictionary, 1989.

[67] Collins Cobuild English Language Dictionary, 1987

[68] The term 'serendipity' supposedly comes from a story called 'The Three Princes of Serendip'(an earlier name for the country once called Ceylon and now known as Sri Lanka) who were always making accidental but happy and fortuitous discoveries, to as yet unframed/posed problems. It is said that Horace Walpole coined the term in the 1750s to refer to his own accidental discoveries.

or focus our attention on the 'right' box, the specified category, we may miss out on some unexpected and useful insights. Broadening the narrow beam of our focus and adopting a more relaxed approach may be sometimes turn out to be a rewarding experience.

Yet insights and serendipitous discoveries do not come from a vacuum. We will only come upon these discoveries if we are prepared. A vast amount of the 'preparation' is unconscious, we are not necessarily consciously aware of all the input we have been, over long periods of time been putting in. When one day, as a result of being primed by something that intrigues us or presents us with a problem to solve, the clues and hunches that aid our voyage of discovery come to together and may provide us with the insight we need 'to solve the problem'. "Dans le champs de l'observation, le hasard ne favorise que les esprits préparés. (Louis Pasteur)

Western thought is not always prepared to trust in these seemingly chancy and 'slow'[69] and unconscious ways of thinking, solutions to problems and discoveries do not always come in rapid flashes of instant inspiration. In addition western seems characterised by a passion for certainty; it demands a positive approach, a positive stand, a clear cut and dry attitude, but life and nature are full of uncertainties. The unfolding experiences of life, exploring, advancing or retreating, requires the open mind, a willingness to learn and wonder rather than pursuing a set road to some imagined goal. An associated tendency, maybe stemming from it or at least closely intertwined, is the tendency in western society to predominantly use 'foveal' vision. This is the type of vision that concentrates on one fixed point in front, ignoring everything else around it. The other type of vision, peripheral vision,[70] takes in the whole panorama of what is happening in front and around us.

For convenience and ease of location, we sort books, music, and recipes into categories. We sort people into types, based often on the very few things we know about them. We also devise school curriculum and syllabuses and schedule classes as if subjects had clearly definable boundaries and were capable of being contained in neat watertight boxes. Trying to make everything fit neatly into predetermined

[69] Claxton explores this idea in his book '*Hare Brain, Tortoise Mind'*, the title of which points to a seeming dichotomy but emphasises the need for blending two different ways of thinking, the rapidity of which the brain is capable of functioning together with slower more intuitive ways of thinking the Tortoise Mind'

[70] These two types of vision (footnote * peripheral and foveal vision use different light receptors in the retina and different neural pathways in the brain. Foveal vision is associated with arousal of the sympathetic nervous system(the part of the involuntary or autonomic nervous system associated with activity, adrenaline, and stress, while peripheral vision is associated with parasympathetic arousal, the part of the nervous system associated with relaxation, calmness and healing.

compartments may make organisation easier but we may also miss out on and fail to observe interconnections and underlying structures which could provide insights and illuminate our understanding.

Creative thinkers are able to shift between the sharp focus and the soft focus which allows them to consider elements which are on the periphery but which the focused beam of human consciousness tends to miss, to perceive the interconnections and the underlying structures.

One common definition of creativity is that it is creation of the new and the arranging of the 'old' in new and different ways. One strategy for generating creative responses is in the juxtaposition of elements not previously considered or viewed in the same framework before. The shock, the surprise, the confrontation of elements from different planes and the responses triggered off can break help to break well trodden paths of thought and open new and previously unthought of configurations which may lead to creative solutions. Much of Koestler's (1989) theory of creativity is based on this concept. Leonardo Da Vinci, like many other creative spirits used the idea of combining and connecting disparate elements as inspiration

In a similar way the use of metaphor can help shed light and deepen understanding by helping us to see things from a different perspective or by seeing a familiar situation in a new or unexpected context. Metaphors can help to break down the invisible, often preconceived but decidedly resilient barriers which society seems so keen to construct.

The interconnectedness of things, the cutting across boundaries of perception and the use of metaphor all woven together to illuminate the powerful connections between mind and body are illustrated beautifully in this paragraph written by a Yale Professor of Surgery and the History of Medicine, writing on the subject of poetry.

> Take poetry. Its most fundamental characteristic is the line, however constructed; the line is the tissue of poetry. Like a tissue, it exhibits repetition and variation. Although any of its words, like any cell, is insignificant when taken by itself, its presence in the line is essential to the cadence and meaning of the whole; it therefore demands attention in its own right. Every word is the precise word - every pause is the precise pause, whether indicated by the voice or in the punctuation. Each depends for its significance on the entire poem. The whole gives meaning to each constituent part and to the specific location of that part within it. Is this not true of every part of the body, perhaps even then of every cell? It is

> precisely the right kind of cell, but standing alone by itself without context; its work has no meaning. The various elements of a poem combine- are organised, are integrated, are unified –into the complex organism we behold. The poetic organism lives because each of its words and pauses and punctuations live. True of a poem, true of a man. We create a poem in our own image. (Nuland. S. 1998: 366)

5.2.7.1. IMPLICATIONS OF THE "CONNESSIONE" CONCEPT FOR TEACHING AND CREATIVITY.

From the point of view of creativity, seeing links and interconnections, being able to juxtapose seemingly disparate ideas and images and to be aware of the possibilities generated is one of the requirements of creative processes. Koestler saw much in common between creativity and humour where in the juxtaposition of elements from different planes coming together, unexpected combinations can be triggered off, in humour the laugh reflex is activated, in thinking processes a fresh insight may lead to the birth of a creative idea. In teaching and learning unnatural divisions between subject areas try to force us to see things as if they were truly divided into clear cut and sometimes even watertight compartments, strangely ignoring the common links and undercurrents which help to illuminate, or see from revealing perspectives areas which may have put things in context, and show how everything is, in truth, interconnected.

5.3. Observations, implications and interconnections

In exploring this last element in Gelb's list of creative principles, "connessione", it is clear that even though we have attempted to separate out the different strands, to isolate them in order to see them more clearly, time and again areas overlap, nudge up against and influence each other. Even a brief glance through the points suggested by these seven principles reveal the links and the difficulty of separating out the different elements. The implications are that instead of separating out elements in life, in teaching, by allowing interconnections to emerge and subtle new blends to occur we are enriching and multiplying our possibilities rather than restricting them. In so doing we are opening the doors to more creative outcomes.

6. TEACHING AS AN ART

6.1. Introduction

In this study we have taken the idea of teaching as an art to provide a framework through which to view creative teaching. We have looked to parallels in the processes a creative artist might go through and those which

a creative teacher might similarly have to follow in the pursuit of a generative and creative approach to teaching, and we propose a framework for this perspective in the following pages. However it may be useful to consider how within the area of the teaching of foreign languages is sometimes seen as seen as being and art and sometimes as a science.

6.2. Art and science: a dichotomy?

Discussion and thoughts about teaching in general and in specific fields like teaching English as a foreign language often provoke strongly conflicting opinions as to whether it is or should be considered as a science or an art.

In the ongoing debate different perspectives emerge but many express the conviction that the traditional science – art divide is an unnatural one. However this has not necessarily been reflected by society, where science and art have been seen as different cultures, with different ways of seeing and relating to the world reflected in the different ways of thinking encapsulated by the following beliefs. Eisner (1991) points to this divide as being characterised by beliefs like:

- Science was perceived as the systematic pursuit of knowledge, while art was a pleasurable form of experience
- Science deals with data; art with imagination and personal expression.
- Science provides insight and understanding; art provides satisfaction
- Science seeks the truth; art creates fictions in the form of literature, poetry, songs, and plays
- Science is cognitive; art is affective
- Science is replicative; art is personal and unique.

Thus science is seen as having to do with hard data, while art is more whimsical, dealing with imagination, personal expression, taste and the sensibilities, optimising the divide between the objective and the subjective. This is a view that has had great influence on education systems and is exemplified by the distinction between science and arts faculties in universities, and until recent years this distinction and channelling of pupils into either arts or science also existed in secondary education systems.

Larsen – Freeman (1997) collecting spontaneous associations from colleagues on the concept of 'science' was presented with responses like, 'objective, sterile, analytical, predicting and controlling, omniscient, arrogant, absolute, dispassionate', which support those traditionally held preconceptions as suggested by Eisner. Yet examples abound of the common threads which bind together science and art. Leonardo Da Vinci used scientific methods of measurement, experimentation, engineering and analysis in the creation of his art. Modern artists use complex materials and highly calculated methods to communicate their ideas to the viewer. Freedom of expression and the discipline of the materials provide the framework within which they have to work to see their ideas given form. Shohamy (1997) suggests that scientists too, are motivated by artistic modes which are integrated into all areas of their research.

In the enthusiasm of selecting a research topic, in the creativity of constructing data collection instruments, in the imagination of preparing research materials, in the sensibility of collecting research data, in the taste of making decisions about materials to be included, in the expressiveness of drawing patterns and themes in data, in the exhilaration experienced when obtaining research results, in the excitement of interpreting results, and in the aesthetics and beauty that scientists experience in observing the final product of their research. (11)

Scientists and mathematicians frequently describe how the satisfaction of coming up with a solution is intensified by the feeling of rightness combined with the aesthetic qualities of the solution. Yet while art is seen as the domain of imagination and mystery, science too deals with mystery and in the recognition that one must take delight both in solving mysteries and in living with things for which there may never be an explanation.

> Centuries ago when little was known of science, the mystery of the body's internal machinery enthralled ordinary people and tantalised the educated. It seemed a miracle, this bustling edifice of thought and action-beyond the capacity of mere mortals to comprehend, and yet providing here and there a hint that the inscrutable might somehow be understood if only

> properly directed efforts were made. In time, the right direction was indeed found and the efforts rewarded, yet the tantalising and the mystery not only did not lessen; they actually grew. The more became known, the more miraculous seemed the intricacies of the whole and the more urgent the drive to expand our knowledge of organs and tissues. (Nuland 1998:xvii)

Even at the beginning of the twenty first century when knowledge of medicine and the human body has made astonishing progress plenty of mysteries remain. This scientist entering the doors of the laboratory where he is engaged in research into memory in humans, which involves ongoing experiments with working with chicks displays nothing here of the coolly objective and dispassionate mind.

> As I pass through the doors, I find myself singing. I don't sing often, for I am, I must make clear, practically tone-deaf; listening to my singing is, I am told, an excruciating experience. But leaving the office for the lab always cheers me; first formless hums and finally snatches of mixed song, odd verses which clutter the recesses of my memory like undisposed-of garbage, break out. Catching myself singing, I am amused. I know what it signifies; it is a day for real experiments, not just paper shuffling. (Rose 1993:16)

If as Larsen-Freeman (1997:19) says, 'science is about curiosity, awareness and about learning to look, rather than objectivity, dispassion and sterility' the imaginary dividing line between science and art becomes even more blurred and fuzzy in its meanderings. Restak (2000: 241) talking about outcomes in the study of the mind and the brain comments that no one is able to predict because such research is " a mix of science and art, culculation and serendipity". Csikszentmihalyi's (1997) study of creativity explores creativity based on information and insights gained through interviews with over a hundred creative people. These creative people come from all areas of creative endeavour, not only those associated with the arts. Information collected and commented on by Csikszentmihalyi clearly points to the similarities rather than the differences in the ways in which possible creative ideas come to these people after having either consciously or unconsciously posed problems to their brains.

> Salk's best ideas come to him at night when he suddenly wakes up and after about five minutes of visualising problems he had thought about the day before he begins—'to see an unfolding, as if a poem or a painting or a story or a concept begins to take form. Sometimes when such associations of ideas begin to occur in his mind, Salk claims to have a

> palpable physiological response which indicates to him that the right side of the brain has become active. At this point he either falls into a deep sleep, or he sits up in bed, turns on the light, and writes down the thoughts that have occurred to him, for three quarters of an hour to an hour. In this fashion, he has 'accumulated a considerable amount of material over the last several years that I'm now beginning to work with, to try to understand or see the themes that have come forth this way'. (287)

6.2.1. Shifts in scientific paradigms

Much depends on how we view science and scientific processes. Widdowson (1997) points to limitations of scientific research with its demands for objectivity, the need for empirical proof and predictability and how this can be applied to the teaching and learning of foreign languages. To stand up, tests must be able to be reproduced and if all the conditions are the same, then this is possible, although it involves discounting or ignoring a whole range of complex factors that exist in any teaching learning situation,

> You have to control the circumstances, ignore a whole host of factors, and eliminate them from consideration. The scientific version of reality is an abstraction. So in our own field, research in Second Language Acquisition can claim to be scientific. As such its findings are conditional on controls, on limiting unwanted variables, so that they are a version of learning, valid only under these conditions. But this abstracted analysis does not match up with actual experience, where variables cannot be so easily eliminated. This is not to say that this scientific version may not reveal things which have potential relevance, but the relevance has to be established by reference to the reality of actual experience. It is never self-evident. So researchers in SLA can never reveal the truth about language learning and never tell teachers how to teach. The problem is that some of them seem to claim that they can, some TESOL practitioners are deluded into believing them. (14)

The difficulties and the challenges posed to teachers of foreign languages are also what makes teaching so fascinating a process for it is concerned with teaching language to human beings. In certain respects human beings are all alike: bodies come in all shapes and sizes, but they consist of the same internal organs, so medical technology can be effectively and predictably applied. But Widdowson highlights the difficulties implicit in imposing the results of research onto language learners.

> Human brains are basically the same whatever head they are in. Human minds are not, and this is many ways is inconvenient. So you can try to make them conform to findings, and in effect operating on them as if pedagogy were a kind of brain surgery or genetic engineering. (15)

Fortunately this is not a viable possibility, but science can be seen as providing the general principles that arise from theoretical inquiry and they can then be treated as parameters which can adapted to suit different sets of circumstances. Widdowson emphasises that one should not assume relevance and validity in advance because it has been produced in some highly controlled situation but rather that one establishes it by referring to one's own particular circumstances. These circumstances include the learners and their diversity and the weight of the everyday world of experience which need to be taken into account together with the theory which informs and influences our beliefs and approaches to teaching.

These shifts have perhaps occurred as a result in important shifts in the paradigms of science, which open up the possibilities and move away from the controlling limits of scientific research. Capra (1997) describes this change as one moving from the mechanistic to the ecological, a change which has not proceeded in an orderly fashion but at different speeds and in different forms in various scientific fields, seeing as provoking a fluctuating force or tension,

> The basic tension is one between the parts and the whole. The emphasis on the parts has been called mechanistic, reductionist, or atomistic; the emphasis on the whole, holistic, organismic, or ecological. In twentieth century science the holistic perspective has become known as 'systemic' being merely the more technical, scientific term. (17)

Systems thinking emerged simultaneously in different disciplines in the first half of the twentieth century and was pioneered by biologists who emphasised the view of living organisms as integrated wholes. This new paradigm of science was added to by Gestalt psychology and the new science of ecology.In the light of systems thinking, the positivist view of science, which included standardisation, replication, and objectivity is now perceived as a limited way of understanding the world. Instead it has been replaced by,

> an interpretative one and originates in the realization that the contexts of social science vary from one situation to another, and are dynamic and fluid. It is socially and culturally constructed and represented by various means and forms - numerical, verbal, qualitative and quantitative (Shohamy 1997:12).

With this important shift "science is no longer seen as capable of revealing single truths but multiple and interconnected truths, multiple sources of knowledge, which are determined by interpretative communities" (12) and as such it has been seen as reflecting an approach which is more compatible with the reality of teaching second or foreign languages. In a similar way Shohamy suggests that the goals of research into foreign language teaching and learning are not to prove or disprove theories but rather,

> the goal is to interpret, understand and gain insights into specific contexts as exemplified between the researcher and that which is researched. This type of research is carried out not only by the so-called scientists, but by all involved in the practice of TESOL, as they all have the commitment for gaining knowledge for the sake of improving its quality. (12)

If science is about curiosity, awareness and about learning to look (Larsen-Freeman) it does then have much to do with art, for these qualities too are the embodiment of artistic sensibility and are requisites in the production of artistic and creative outcomes. It reflects truths about good teaching too and especially creative teaching which demands that teachers be curious, aware and willing to see and to act on what is happening in their classrooms. Curiosity and inquiry benefits science, art and teaching.

6.2.2. Art and science in the teaching of foreign languages

The teaching-learning process throws up many mysteries and those who are prepared to approach it as a mystery to be solved, and recognise that just as in science some things may forever remain beyond explanation, will see their teaching as a ongoing adventure. Teachers who see each lesson as part of an ongoing inquiry who find new things to discover and who follow a lesson with a period of reflection out of which new understanding arise and are assimilated – 'such teachers are scientists in the best sense of the role' Shohamy (1997).

Widdowson has suggested that teachers of English as a foreign language are as individuals in the particular circumstances of their own classrooms acting as "artists in the exercise of their craft". They are not scientists seeking to eliminate variety in the interests of establishing generalities. They are not technologists seeking to exploit the findings of science by manipulation. As artists they react to variety and give shape and meaning to it, and they do so by reference to the principles of their craft.

Shohamy sees both science and art as playing important roles in informing and developing the practices of teaching foreign languages. Widdowson has challenged the science view teaching languages in that it is a domain of practical activity not of abstract inquiry, but it does require the rich body of knowledge that underlies its practice and that provides answers to many questions about students' learning, teaching methods, measurement of language, etc. As such it draws upon many related disciplines such as applied linguistics, literacy, sociology, psychology, and pedagogy. This knowledge has been arrived at through "a scientific process of disciplined inquiry whereby questions are asked, theories are developed, refuted and reconstructed, phenomenon are observed, data are collected and conclusions are reached" (Shohamy 1997:12).

Whether teacher research counts as science and advances the knowledge in the field hinges on what we mean by knowledge. Eisner, (1991: 210) has pointed out that a view of knowledge as "inert material", that can be collected, stored and stockpiled, is not the same as the growth of knowledge which is more horizontal than vertical and is the type of knowledge which is gleaned from teacher research and which can yield multiple conceptual frameworks that others can use to better illuminate teachers' understanding of what happens in classrooms.

The art component of language teaching can be seen as referring to the creativity, innovation, enthusiasm, imagination, aesthetics and intuitions which teachers draw upon. It is also embodied in the recognition and provision of opportunities for activities for learners which involve different types of language experiences, using music in the classroom, storytelling, pleasurable activities, activities designed to encourage creativity and drawing on the learners' vast treasury of personal associations memories, tapping into the imagination, and the use of personal imagery.

Creativity in education is however not always seen as a good thing. Many education systems and those who later have to deal with those it has produced have pointed to the observed repercussions and failures that trends towards creative teaching have apparently been responsible for. They complain about the poor preparation of students who leave educational establishments with little knowledge of important underlying structures and lacking a sound base of knowledge of the subject matter. But to talk of teaching as an art does not mean that it is 'a matter of untrammelled individual creativity' (Widdowson 1997: 15). The artist needs to learn his craft and even those with instinctive gifts need to be informed by conscious awareness of the theoretical principles required to give form to their ideas and creativity. Thus for the teacher and the student alike creativity in itself is not enough. The teacher cannot give herself up to being innovative at the expense of ensuring that learners

have, in the case of language teaching, sufficient knowledge of grammar and a rich enough vocabulary to allow them to be able to express themselves clearly and coherently in a variety of different ways, only some of which will necessarily involve creative contributions.

Good teaching blends both science and art, and while this is true for all areas of teaching, language learning is different. Bearing in mind the complexities and diversity of learners and the fact that learning a language is not quite like learning any other subject, teaching a language to people requires science and art. Learning a language is learning another means of expressing oneself and has to be assimilated alongside one's existing knowledge and experience. Learning a new language can enrich and broaden or limit and challenge one's self image. Learning a new language can be liberating and creative or it can be threatening and diminishing.

Thus to put an emphasis on teaching as an art does not imply a lack of sound theoretical principles. Teaching is informed by science and forms and informs teaching. The practical aspects have to be based in theory but theory also has to have relevance to practice. Widdowson (1990) sees the main value of research in helping teachers to define more clearly the problems that they themselves must solve.

> What it can do is to stimulate interest and encourage teachers to think about the implications of their practices. It can also provide them with a conceptual context within which to work, in the form of hypotheses to test out in the conditions of their particular classrooms. In short theory can help practitioners to adopt a theoretical orientation to their task, whereby they seek to refer the particular techniques they use to more general principles, and, reciprocally, test out the validity of such principles against the observed actualities of classroom practice. (25-26)

As reflected in the experiences we have quoted above, there seems to be after all no clear divide between art and science. The contrast between the rational calculation of the scientist and passionate perhaps originates in western ways of thought with its tendency to compartmentalise and categorise. One of the informants of Csikszentmihalyi's (1997) explorations into creativity, Hazel Henderson an economist and author, points to the way in which oriental philosophies tend to see things on a continuum as compared to western thoughts where concepts are organised into opposing forces.

> There's a very harmonious continuum of what Zen Buddhists call attachment- detachment. And you should always be in the state where

> you are both. There's a yin/yang continuum, which we can't understand in Western logic because we have this 'either/or'. But it's 'both/and' logic, and it says that there's a constant dance and continuum between attachment and detachment, between the long view, the infinite view and the incarnated view where we have to learn about limitedness, and finitude and action'. (305)

Another aspect which has bearing on this discussion is that many people have a tendency to see and deal with their experiences of the world in ways which are heavily influenced by their preferred modes of thinking, or by tendencies for example to be more left or right brain dominant or by which type of intelligence is predominant in their mental make up, or in ways which have been instilled into them by education systems.

In addition many teachers fall into ways of thinking about and dealing with teaching which is highly influenced by their own learning experiences. One result of the latter point may be either that they continue to use it as a default mode or consciously or unconsciously attempt to change. There are clearly those who feel more comfortable with approaches to teaching which are soundly based in research and tried and tested methods, (even though it would be hard to agree on exactly what these may be) and which reflect for example a more left brain approach, linear, logical and sequential and analytical. Others may be less inclined or able to deal with the world and teaching in this way, seeing the teaching learning process in a more holistic and synthetic way. Thus even though teachers take into account theories of language teaching and use these to inform their teaching there will always be those who see teaching more as a science and others more as an art.

For the purposes of this study we intend to develop the concept of teaching as being informed by science and research and yet at the same time one which allows for and encompasses the teacher's own vision. As it has been claimed that research can help teachers towards developing a conceptual context within which to work, in the following section we suggest a framework into which teaching and more specifically one in which creative teaching can be explored and developed. Widdowson has claimed that the teaching can and needs to be informed by science, but that does not convert teaching into a science as teaching is a domain of practical activity and not of abstract inquiry (1997:14). Rather practitioners of TESOL or by extension teachers of EFL are, "as individuals in the particular circumstances of their own classrooms, acting as artists in the exercise of their craft". (15)

6.3. A framework for creative teaching

In this section we intend to examine the concept of 'teaching as an art'. What does it mean to view teaching as an art? What kind of art? What might"teaching as an art' have to do with creativity and creative processes? In section IV, we have explored some ways of viewing creativity and creative teaching. In "discussions on creativity" (section IV) we saw how some groups of students viewed creativity, both as something relating to broader definitions of creativity, their own personal definitions and also to how creativity relates to and manifests itself in teaching.

6.3.1. The interdisciplinary and multi-faceted nature of creativity

Although there is some common ground in people's views as to what creativity is, and how it manifests itself, it remains, as many have said and as the countless attempts to do so bear witness, notoriously difficult to pin down. It seems to be one of those things that is much easier to detect than define. It has fluid and mercurial qualities about it, which make it elusive to concrete definitions. Just as it eludes definition neither is it restricted to specific areas, domains or disciplines, but can and does shines out in very different areas of life and endeavour.

> Veamos las mil y una facetas que puede presentarnos la creatividad como un hermoso diamante al que en mirados alternativas pudiéramos descubrir todo su esplendor (Romo 1997: 69).

Yet as Gardner (1993: xii) points out "by a curious twist the words art and creativity have become closely linked in our society ". This is probably true although once one thinks beyond the initial response reaction triggered by 'creativity', its interdisciplinary nature quickly becomes apparent. This is supported by the widely diverse areas in which creativity is, especially at the beginning of this new millennium, seen as an ongoing and ever-growing issue in the search for new solutions and new ways of looking at existing challenges to take us into the future. A World Congress on Creativity held in Madrid in September 1993, drew amongst many others, psychologists, teachers and educators, artists, inventors, epistemologists, biologists, physicists, business managers, publicists, journalists, sportsmen, actors and writers (Romo 1997). In the first years of the twenty first century the recognition of the importance of creativity across disciplines continues to grow.

While most of us would agree that 'create' is what people like artists, composers, choreographers, poets and novelists 'do', we can also consider as creative, a whole range of people in different walks of life who live their lives responding in different

ways to the demands of their lives and callings, devising and developing their own creative strategies for dealing with them. Among these people who respond to life's challenges with creative solutions of the personal type, creativity with a small 'c', we might find, religious leaders, extremely successful salespeople, managers of successful organisations, philosophers, parents in the task of bringing up their children, creative managers of the family economy, creative cooks and parents adept at inventing bedtime stories for their young children, and of course some teachers for their teaching criteria and their creative ways of teaching.

6.3.1.1. CREATIVITY IN TEACHING

It is on the resources of this last group of people, certain teachers who seem able to draw on skills, abilities, talents, and experience to make teaching something which lifts it above the mundane and predictable, which makes it instead of just another job, something of an art, that we are particularly interested in.

Amongst others Eisner (1976) and Widdowson (1990) have viewed some types of teaching as "an art". Others, for example Fanselow (1987) see what the skilled teacher does as a craft, viewing good teaching as the execution of a set of skills, perfected and polished, just like those we might associate with an accomplished and skilled craftsman.

One key element of creative processes which we will focus on is the unfolding nature of the process. Eisner has seen this quality as one which sets good creative teaching apart from its poorer relative (where teaching is seen as the imparting of the knowledge of the teacher to the incomplete and awaiting minds of the students). If good teaching is to become creative teaching and to have common meeting points with other recognised creative processes then it has about it this unfolding element.

> Teaching is an art in the sense that teachers, like painters, composers, actresses and dancers, make judgements based largely on qualities that unfold in the course of action… the ends they achieve are often created in the process (Eisner 1976:176).

Viewing teaching as an unfolding process characterises an approach to teaching which is almost diametrically opposed to those which repeat fixed recipes and formulas and which has become 'stuck' in predictable patterns.

6.3.1.2. CHARACTERISTICS OF CREATIVE TEACHING

Together with the unfolding quality, we see other similarities and parallels between artistic creative processes and the process of creative teaching. These are the *constraints* and the *flexibility* of the process. The necessary *personal skills, techniques, experience* and *judgement* of the person involved, an *end product* all of which are dependent to a greater or lesser degree on the relationship between the artist and his work, and the case of teaching between the facilitator of the learning process, the teacher and the students.

While there are similarities there are of course also differences. Very often, but not always, the process of creating a painting involves just the artist and his work. Teaching involves other people, which increases the interactive element and therefore the unfolding possibilities of the endeavour. This may of course, also occur in artistic processes. A painter may not always paint for himself. A work may be commissioned then in addition to fulfilling his own creative drives the artist also has to comply with the desires and requirements of the person or people who have commissioned the work.

Wallas' (1926) stages in creative processes, *preparation, incubation, illumination* or inspiration, followed by *evaluation* and *verification* can also be applied to creative teaching as long as we see these stages not necessarily following in ordered sequence. Viewing the creative process as an ongoing one and not as a series of isolated acts, liberates us from the ordered sequence of events. In creative teaching as in any other area which involves creativity, at any point along the way, other creative projects may be born, one creative outcome may generate other possible creative outcome and plant the seed for another related creative search to be set in motion. Thus we see creative teaching as a process which reverberates, which is cyclical, which is alive and continually evolving. By nature it is an ongoing and continuously unfolding process, triggering off lines of pursuit and discovery both for teachers and learners.

In the discussion which follows we examine the concepts we have mentioned above from the point of view of creative processes related to art and then from the point of view of creative teaching.

6.4. Unfolding

This element is dependent on and grows from the need for 'creative space, reflection, incubation and the internal dialogue. Artists and authors often describe how although they need to have the idea or a rough plan of what they want to write or paint in mind when they start, once started, the work in progress (for example, a painting

or a novel), seems to take them off in directions which they had not previously envisaged. The work unfolds and develops in ways which could not have been foreseen at the outset.

They also often describe the necessity to be able to distance oneself from the work in process. We suggest that this stage might be paralleled or compared with the so-called 'incubation'stage of a creative work. Often this incubation stage is associated with the initial stages of the creative process when for an example a challenge is set or a problem posed or the seed of the idea to be developed has been planted. During the course of a piece of work, when a difficulty arises or a solution needs to be found, or some crossroads reached and where the options are not always clear-cut or readily available, times of reflection and feedback be required. These might also be considered as periods of incubation. These periods may be fleeting and seemingly instantaneous or may require a short break from the work or even a much longer period 'away' from the work which allows time for the necessary interaction between conscious and less conscious ways of thinking to solve the problem or to come up with possible hypotheses to be tested out. Only by following this process is a finished product which meets with the satisfaction of the artist likely to be found.

6.4.1. The unfolding process for artists and teachers

The unfolding process of creative work means that the difficulties and problems which inevitably arise are an integral part of the creative process itself. They could not have been planned for or resolved at the outset of the work as they only came into being as part of the unfolding process of the work. As each decision is taken and dealt with, it in turn opens up new possibilities, those possibilities in turn lead to others and so on. At least this is the kind of process which occurs in an original piece of work. This however does not hold true for the type of work that simply repeats or reproduces or parallels a previous piece of work. Repeatedly following a successful recipe, or previously tried and tested variations, may produce an accomplished and skilful piece of work, but not necessarily one which can be defined as an original or creative response.

6.4.2. Interaction and the internal dialogue

There is something implicit in a creative process which requires this dynamic, continually evolving and interactive response to the latest stage of the work. A kind

of synergy and an organic growth pattern. Sometimes at each decision making point, one or more possibilities may present itself, or have to be searched for, but what is sure is that the responses are not issues which could have been predicted at the outset of the work, for at the beginning of the work they did not yet exist, having been generated or created as a direct result of this ongoing and continually evolving situation.

We believe that in a very similar way, teaching demands responses to elements which inevitably unfold in the course of a lesson or a series of lessons. There may be many points in a lesson in which decisions either spontaneously made or requiring longer reflection will arise. Undoubtedly the most important types of decisions which emerge are those which involve the learners. Sensitivity to the unfolding qualities of the teaching process and to the learners, involves seeing each student as an individual with his or her difficulties and strong points. It also means having at one's disposal the right method and technique to cope with each individual. It recognises the uniqueness of each teaching situations and processes which require unique solutions.

Together with the having the necessary skills and knowledge related to the subject matter is the quality of sensitivity to learners, which is encapsulated in the concept of unfolding. The ability to deal in sensitive ways with this element in the classroom requires for example an awareness of intrapersonal and interpersonal intelligences[71], an awareness of the different sensory representation systems of learners[72], qualities of empathy and rapport, and in general a recognition of the importance of student feedback.

6.4.3. Teaching and learning feedback

The creative process experienced by the artist could be described as a kind of ongoing process of interaction or internal dialogue between the artist and the evolving and growing work. In an accomplished, skilful and creative piece of work these elements are present in the finished work, although they not necessarily obvious to the viewer. Translated into creative teaching this might mean that, "Teaching can be performed with such skill and grace that, for the student as well as the teacher, the teaching can be justifiably characterised as aesthetic." (Eisner 1979: 175) In comparing artistic creative processes and teaching as a creative process the concept of interaction is of vital importance to both.

---

[71] Two of the intelligences Gardner has identified (1993)

[72] In NLP, terms this is referred to as "VAKOG" an acronym for Visual, auditory, kinaesthetic, olfactory and gustatory sensory systems.

By interaction we mean a kind of 'dialogue', (not necessarily spoken aloud) growing out of what happens in the classroom as regards the learners and their learning processes and the teacher and the teaching process. It involves reflection on the part of both teachers and learners with the opportunity for interaction and exchange between teachers and students and between students themselves. If real interaction is present the teaching / learning experience can be a dynamic one. If there is little or no interaction the situation becomes static. The teacher, instead of facilitating the learning process may in fact thwart it. Such situations were there is little or no dialogue are generally characterised by 'stuck ' teaching, where the teacher becomes entrenched in well-worn, tried and tested procedures. The subject matter may have been 'taught' but have the students learnt? Of course students may have learnt in spite of the teacher and the method, but this outcome renders the role of the teacher redundant and as we are here concerned with creative teaching we will set this issue to one side.

However, questions as to the degree of creativity and resourcefulness on the part of the student in dealing their own learning requirements in the face of lack of direction and support by the teacher would be interesting to explore. From the experience of some students who claimed that one of their best learning experiences had been when they had been required to structure their own learning of a topic in the protracted absence of a teacher, we might consider various factors, including the importance of learner autonomy in learning experiences and selection of one's own rate and method of learning. We have also commented on how some students especially those in tertiary education have to discover for themselves the most efficient ways of learning. While this is certainly no bad thing and is perhaps indeed seen as forming a part of the autonomous learning of university students, it is an area which needs attention other levels of education and should form a part of the training of future teachers

We believe it is vital to create the conditions in teaching where an ongoing interaction and dialogue can flourish and where growth and development can happen on behalf of both teacher and students. A fundamental factor in this process is *feedback* and we look at this concept and its implications in more detail in a following section.

6.5. Constraints and flexibility

An artist for example, will work on a canvas of a certain size and proportion. He may have chosen it especially for some reason or just because it was available, or as in the case of a commissioned work the size of the work may have been stipulated

in advance, nevertheless the canvas selected will then influence all aspects of the developing work. The choice or imposition of a larger or smaller canvas will inevitably and in many different ways influence the outcome of the work and the artist's endeavours.

In a similar way the materials the artist chooses or is required to use, will involve different processes and will result in different outcomes. Working with oil paints for example will produce a different type of result to one executed in watercolour, even if the subject matter is exactly the same. The same starting point or motif viewed from a different angle or perspective will produce a different result. For example a painting of a landscape viewed from a distance as compared to one where the artist zoomed in on his subject matter will have a completely different configuration.

Once the working framework is established the artist can then accept its challenge and drawing upon his experience and his skills work towards a creative solution. This does not of course rule out the possibility of changing the existing framework along the way, it, in turn then becomes the governing matrix which then once again has to be worked within, unless some other element comes up which demands a further readjustment. There is something of a paradox here, yet while some elements may, once the work is under way, be difficult or even impossible to change, for example the canvas the artist is working on, yet other elements may be changed. He may have decided to work with large brushes then find that some other means of applying paint perhaps with a palette knife or spray are called for.

It is exactly in these constraints and the choices which stem from them, which form and determine the finished work. These constraints are a vital part of the work. Even given complete freedom, one necessarily imposes one's own constraints, rejecting one thing in favour of another, choosing one action instead of another. Freedom from constraints will not make for a better result. Rather the opposite will probably be true. Without constraints the possibilities may be overwhelming and unmanageable or we may resort to what we think is freedom[73] but simply produce other versions of something already done. In addition without the governing matrix of constraints to work within, the work may well lack the vital spark. That indefinable element which makes the work special and which is triggered off by the artist's ability to draw on his skills, experience and techniques and the challenge of using them to reach a solution within the original constraints imposed upon him.

[73] From our own experience teaching art and design to a particular group of teenage boys an ongoing plea was that they be allowed to draw what they wanted. If ever they were allowed to do this they unfailingly produced the same typical subject matter menacing skulls and desolated doom filled landscapes.

An good example of "constraints" is illustrated in Harnad's discussion on creativity[74], where he looks at Stravinsky's view of the creative role of "constraints" in what he terms "problem solving". Stravinsky explained why he continued to compose tonal music after most composers had abandoned the tonal system by saying that, «You cannot create against a yielding medium.» He needed the tonal system as a constraint within which he could exercise creativity. Harnad suggests that Stravinsky's view may well be a variant on the «preparation» theme, (as in Wallas' view of the creative process; preparation, incubation, illumination and evaluation) for if «anything goes» (because of insufficient preparation), nothing creative can happen. Stravinsky saw all creativity as problem solving. He felt that a creative medium could not be infinitely yielding, infinitely «free.» It had to resist in some way (perhaps by giving rise to anomalies and problems) in order to allow creativity to be exercised or even defined. For most of his life Stravinsky personally preferred the classical tonal system as a constraint, working to create innovations *within* it; others, such as the twelve-tone composers, rejected tonality, replacing it by *another* system of constraints. Stravinsky's point was that there can be no creativity without problems, no problems without constraints, no constraints without preparation. Rules may be made to be creatively broken, but they must be mastered before they can be modified or abandoned, and there must always be new ones to take their place, a state of affairs which applies equally to creative artistic processes and to the process of creative teaching

6.5.1. Constraints and flexibility in teaching

Just as an artist has to work within certain constraints, so too does a teacher. The constraints are of course different, and will necessarily be strongly influenced by the type of teaching establishment, the demands of the system, the needs of the students, and so on. A teacher working within a state education system will have constraints imposed on them which will differ from those of a teacher working in a private school or a teacher giving an on-site course for employees of a company. In most cases there will be the constraints of space and time and numbers of students. Course content may be strictly laid down by governing authorities or decided by students' needs and so on. Yet all this taken into account, the teacher does nevertheless have choices open to them, such as to how to plan and teach the lesson, what type of activities to select, what type of grouping to select for the different activities, whether to follow the book or use other sources of material, how much to draw on students' interest and participation, and so on. Thus even with many fixed elements, (though perhaps teachers should ask themselves if those seemingly fixed elements are indeed immutable), there is always a degree of flexibility and often much more than a

degree, but quite considerable flexibility than one might have envisaged at the outset. Fanselow in *Breaking Rules* (1987) explores this theme of the different options that are possible in classroom teaching regardless of the often overwhelming constraints that teachers perceive as being imposed upon them. Fanselow suggests a method for analysing the 'rules' sometimes imposed from outside, sometimes consciously or unconsciously and unwittingly imposed by teachers themselves, which involves recording exchanges in the classroom, with a view to exploring the alternatives which might be generated. Another example of a type of feedback and interaction which provides insights into the teaching learning process.

Thus both the artist and the teacher work within constraints. Constraints which as well as providing the basic rules governing their work, also paradoxically provide the necessary guiding framework within which they are able to work freely. These constraints constitute a challenge where teachers have to draw on all their skills and experience to work creatively within the framework. As in the case of a piece of art work where the artist repeats a tried and tested formula and where the resulting work may be accomplished and skilful but not necessarily creative, in the sense that it is responding to a new challenge, so too with the teacher. The teacher can accept the constraints imposed upon them and endlessly repeat previously used formulae and patterns of teaching, or they can keep the teaching process alive and evolving by seeking to work creatively within the confines imposed upon them.

6.6. Personal skills and attributes.

This area encompasses a wide range of elements. These include complex and diverse aspects such as; *skills, knowledge* and *judgement,* which are all drawn on to a greater or lesser degree in the carrying out of the work, either the creative endeavour of the artist or the teacher's involvement in the teaching process. Each of these elements will in turn be influenced by crucial factors such as *motivation, personal beliefs, intuition, imagination.* The question of talent, "the possession of special or very great ability"[75] arises here, and while there are clearly artists and other creative people whose outstanding ability makes their work stand out across time and from different cultural and perceptual viewpoints, different degrees of creativity are clearly possible, encompassing that kind of creativity which is sometimes referred to as creativity with a small 'c'. This brand of creativity is no less valuable and can to

[74] Harnad, Electronic source, http://www.cogsci.soton.ac.uk

[75] Oxford Advanced Learners Dictionary 1989.

greater or lesser degrees depending on a multitude of factors be developed in everyone. Whatever the degree of innate talent a person possesses in the field of endeavour or domain, the points we have emphasised [76] still need to come into play for a creative outcome to result. In this section our aim is simply to draw attention to these aspects looking at them initially from the point of view of the artist and the teacher. As this area is like that of interaction, an area on which creative teaching seems to depend, it will be explored in greater depth in another section.

6.6.1. The Artist

The artist in executing his work and bringing it to a fruitful and personally satisfying conclusion has to draw on many resources. He will draw his practical skills, his experience, and his intuition. He will have to take risks, make snap decisions and decisions which require longer deliberation and reflection, some of which may be conscious some unconscious and resemble the so called 'incubation' stage. All of this while working within the constraints set down by the situation and conditions of the work. He will need to want to do the work and to experience pleasure and involvement in doing so, perhaps to attain the state of flow or optimal experience as described by Csikszentmihalyi (1988). The reasons for embarking on the work may be triggered in various ways but if involvement and commitment to the task is not internalised and the process is not pleasurable, or put in other words, if the task is not autotelic or rewarding in itself, then the chances of the work being carried to a satisfactory and personally rewarding conclusion are severely reduced. This issue will be dealt with in more detail in another section

We should however, also bear in mind that although we have suggested that in balancing all these elements he is working towards the successful completion of a piece of work, for most creative artists we would suggest that the process does not necessarily end with the 'finished' work. For the process of bringing to completion one piece of work also serves to throw up other challenges and other problems to be resolved in future work. And so the process goes on.

6.6.2. The teacher

The teacher too, within the context of the teaching situation and all that this implies has to draw on a similarly complex range of skills. Just like the artist the teacher

[76] In bold type

draws on his practical skills, his experience, his intuition. He too will have to take risks, to make snap decisions and also decisions which require longer deliberation. Like the artist these skills both link and subtly blend conscious and unconscious skills on the part of the teacher and require that they are able to draw on them as and when required in response to what is going on in the classroom. For the experience to be a satisfying and rewarding one there has to be commitment, involvement and importantly, pleasure taken in the process itself. Without these and especially without pleasure, motivation diminishes and the teaching process becomes monotonous and mechanical for the teacher and in an inevitable vicious circle for the learners too which in turn rebounds once again on the teacher. The teaching process is never completely predictable, because of the complex blend of elements and factors which come into play during a class or a lesson. These will include elements like:

The teacher, the students, the materials, the subject, the learning and teaching objectives, the facilities, the time available, the time of day, the conditions in the room, the light, the air, the furniture and so on. Of these variables the most important and the most complex is the human element. The teacher and her experience and beliefs, the learners and theirs, the day to day fluctuations in mood and motivation of teacher and students, the feelings students bring with them to the classroom, maybe from a previous lesson, their and the teacher's ability to overcome or deal with these feelings, are just a few of this complex web of interrelating elements.

A teacher, in dealing with all these complex factors and resolving them to work towards a successful resolution of a lesson, is like the artist working towards the successful completion of a piece of work. Always in the knowledge that a new challenge is just around the corner, that there are issues which have been thrown up in the course of a lesson which have to be dealt with or new solutions found, new skills to be acquired and perfected and new previously unidentified issues to be dealt with.

The kind of teaching which is able to allow this to happen requires a complex range of personal skills combined with elements like experience and flexibility. Without flexibility, the class becomes a repetitive process that is carried out regardless of those elements that we have previously touched upon.

Some consider teaching as a craft, the skills of the teacher being compared to the skills of a good craftsman. If we try to unravel the threads of meaning which distinguish 'art' and 'craft', we become tangled in the web of closely linked concepts. Looking at definitions of art we find:

- Art: creation or expression of something beautiful, especially in a visual form painting etc"

- Art: skill in such creation'[77]

- Art: 'The creation and production of drawings, paintings, sculpture etc, when these are things are considered to be beautiful or to express in a unique way a particular idea or meaning'[78]

  Any skill or ability that can be learnt by practice.

  Something which requires a high level of skill which someone naturally has or which they develop through experience [79]

Neither of the two main categories of definitions of art, those which refer to 'Art' (Fine Art) or those which compare it to a highly developed set of skills, as for example in "the art of letter writing", "the art of wine tasting", seem to adequately explain and fit the concept of creativity in teaching. The definitions which emphasise the acquisition and perfection of a set of skills is clearly close. Yet the implication is that those skills simply need to be practised until perfected and then one is all set up and ready to go, while this may be true it does not necessarily encompass creative teaching.

If we turn our attention to definitions of "craft" we find, "An activity or job that involves making or doing something skilfully" and " the ability to do something skilfully and well". (Collins Cobuild English Language Dictionary) From the same source, a craftsman is defined as "someone who you consider to be very good at doing something" or "a man who does a skilled job, usually using his hands to make something", or "a man who makes beautiful things such as pottery or carved wooden objects by hand".

An accomplished teacher could perhaps be described as having the skills of a highly skilled craftsman. This seems to be a very desirable condition for teachers to be or to be working towards. Yet in the concept of a creative teacher, some extra spark or edge is required, which lifts their teaching beyond "good". Trying to pin down just what these qualities might be is not easy and perhaps even requires some reformulation or new term. Kurtoglu (2000) attempting to pinpoint the difference

[77] Oxford Advanced Learner's Dictionary 1989

[78] Collins Cobuild English Language Dictionary 1987

[79] Collins Cobuild English Language Dictionary 1987

that makes the difference, has coined the term "jizz", and suggests that it is an essential component of effective teaching, related especially to the personal qualities of the teacher, the teachers' communication skills and their interaction with the students. To maintain qualities of unfoldingness in teaching, the creation of a positive learning environment and good rapport between teacher and students is a key factor. Perhaps this "jizz" quality is one of the components of creative teaching. Just as creativity is seen as easy to recognise but notoriously difficult to define, metaphors can offer some illumination.

> Jizz then is like a rainbow, with a wide range of colours that one can see when it is raining or after it has been raining, just like the holistic impression we have during or after a lesson when we are teaching it or observing it- lessons which give us that "Yes!" feeling (Kurtoglu20).

In the unfolding quality that we have identified as crucial for creative processes, lies the implication that one needs to do more than competently apply the tried and tested procedures to the task at hand. There needs to be that element of innovation, of responding flexibly to a situation which is never exactly the same as before. This may seem to put overwhelming demands on a teacher. The tried and tested skills and procedures form the bedrock of the teachers tools and to be creative does not mean that one has to constantly be coming up with creative solutions. Even the most creative people are not creative all the time. Gardner in '*Creating Minds*' claims to have identified a cycle in highly creative people, where they achieve a truly creative breakthrough only one in ten years.

Perhaps the art of teaching creatively lies more in the ability to teach well and skilfully using tried and tested methods, approaches and techniques, with the ability to inject from time to time, elements of the inspired and unexpected. It most certainly includes the ability to respond as and when required with flexibility and intuition and rightness. Constant change and lack of security can obviously be unsettling for students. A stable learning environment is important, but introducing elements which challenge and nudge, or shock, surprise and delight learners out of feeling that everything is totally predictable are necessary to prevent the mist of monotony and predictability and even boredom from reducing everything that happens in the classroom to monotones.

The focus of our discussion here has been on the creativity of the teacher, but we must not forget where this creativity is aimed. In enriching the teaching process through a creative approach to teaching we should also making the learning process more efficient and at the same time exciting and motivating for learners. In enriching the learning process we should not only be demonstrating creativity but also developing and encouraging creativity in our students

Feelings of uncertainty and insecurity and the inescapable knowledge that each class is unique may be seen as a threat for some teachers who like to feel that they have everything under control. But it is these very elements of unpredictability and the flexibility which are required and which form the 'material' on which the 'art of teaching' is based. H. Puchta speaking in Madrid[80] pointed out that "success depends less on materials techniques and linguistic analysis and more on what goes on inside and between people in the classroom". All of this requires a level of flexibility which as Appel (1995) points out can only come from a broad repertoire of responses available to the teacher, and this repertoire together with the teacher's knowledge and skills are at least partly a result of sheer quantity of practice.

6.6.3. Experience and beliefs

The old adage that experience does not necessarily always lead to good teaching if that experience is only a question of the years accomplished. If ten years 'experience' means the same year repeated ten times over, then the meaning of experience does not ring true. Those accumulated years of experience need to have touched the teacher, to have challenged and changed them, to have made them relate their existing knowledge and experience to new experiences.

All teachers need to be prepared to experiment, to keep an open mind, to adapt and evolve in response to their ongoing teaching experiences and the students they teach or whose learning they facilitate. In fact it may be that this is one of the vital ingredients in a definition of a creative teacher. It is hard to imagine any teacher reaching the stage where they can in all honesty say that they know everything there is to know about teaching, yet some teachers by their behaviour and attitudes to their students give such an impression. For a creative teacher this would be an impossible claim.

Similarly, the beliefs that teachers hold about teaching and their role as teachers clearly has a major effect on the outcome of their teaching and whether they view teaching creatively as something to strive for. In addition to dealing with her own beliefs the teacher will need to deal with the learners' beliefs about themselves and their ability to learn.

[80] IATEFL SIG TT Symposium 2000

6.7. End Product

It is generally agreed that creativity reaches its culmination and fulfilment in an end product of some kind. To have good ideas and lots of imagination is part of the creative process, but not the whole. The ideas and imagination have to be given form, they have to exist outside of their creator's mind. There are other criteria to be fulfilled too as that of the product being recognised as creative by others.

In the area of 'historical creativity' truly innovative and creative work may be quickly recognised, or it may require time for people and accommodation for people to accept and recognise it. The work of artists, fashion designers and architects for example may require considerable time on the part of those on the receiving end to gradually accommodate their vision to their creative solutions to the point where they no longer find it outlandish and unacceptable.

Then too, there is creative work that is not even recognised within the lifetime of its creator. Consider the paintings of Van Gogh, the work of the biologist, Gregor Mendel, or the American poet, Emily Dickinson. The fact is that truly creative responses break new ground and challenge our existing our perceptions to such a degree that Gardner (1993) has suggested that initial rejection is the likely fate of any truly innovative work.

Although teaching cannot generally claim to result in the type of creative end products that creativity with a capital "C" produces, this does not mean that it involves processes and results which cannot be defined as creative. Rather we need to change our focus and look not for the tangible the concrete or the immediate result.

If we are to remain faithful to our model of creativity in general and in particular in the arts being applicable to teaching, what type of end products can teaching have? Perhaps in teaching so that our students learn successfully, but who or what exactly are successful learners? Learners who can pass exams? Teaching processes do not produce tangible and visible end products, unless we consider a certificate or diploma obtained at the end of a course. We should always be wary that an examination result does justice to the student. How many people respond really well under examination conditions? How many people really feel that the exam reflects what they would really like it to reflect? And what about the learning that has gone on in a student which is not reflected in examination answers? A few students are not phased by examinations, and others develop various strategies for dealing with them so that they come out with good marks. Examinations are one way of evaluating students, but not the only way and they do not necessarily reflect learning which has taken place in the student during the course of a period of study.

Underhill[81] (2000) reminds us of the limitations of examinations whereby, "Every act of measurement loses more information than it obtains". Looking for certain information evokes just the information we are looking for and at the same time it seems to eliminate our simultaneous opportunity to observe other information. This is one of the dangers of using examinations as the major form of student evaluation. Creative teaching needs to be open to ways of assessment which do not put all the emphasis on formal written exams.

However hard one tries it is difficult to get away from the passing of the examination being seen as the objective of learning especially in obligatory state run education systems. Sometimes, however, learners are able to distinguish between the process of arriving at the examination and the examination itself, as is illustrated in an account of an experiment in self guided learning carried out by a French teacher (Rogers 1994). While acknowledging the good results of her students in the obligatory examinations and the non-traditional approach to the subject with its learner-directed (rather than curricular) focus of the subject, when it came to the examination the students reported that although they always studied for the final examination the week before and then forgot everything, the difference was that they recognised that they had done more interesting things all through the year. These students recognised the value of the learning experiences, how they had been rewarding and creative and yet they were able to disassociate those experiences from their examination performances. They seemed to be implying that the exam only required a relatively short period of their attention and that there was plenty of time for creative personal and group learning experiences within the course time available to them.

From our own experience we would suggest that in some situations where teaching veers away from the traditional and has a more learner-directed or experiential focus then examinations can be less threatening. Once during an examination we were surprised to be asked by a student who had been attending a preservice teacher-training course run on participatory and experiential lines if they could add a comment to their final examination paper to describe their feelings during the examination[82]. The comment seems to illustrate that for some students in some learning situations, even the examinations can be less stressful than they imagined.

---

[81] Speaking at the IATEFL SIG TT symposium in Madrid 2000.

[82] "Before going on, I want to write a sort of reflection as in my journal. I feel a pleasant atmosphere now, I am not nervous, it is rare but I feel as if I was breathing deeply and inspiring different colours, filling my soul. I cannot explain it really well, but it's the first time testing is not a problem, for I think the really important thing is not so deeply a possible mark or whatever, but the sense of having learned many things from experience in a relaxed atmosphere with musical sound surrounding us, and this is always important. "The important thing is not where we stand but in what direction we are moving" (Goethe).

We believe that the end product of the creative teaching processes should reflect students' understanding of a subject. It may reflect what they have studied for the exam and their ability to answer the questions put to them, but exams do not necessarily reflect what students have learnt, really learnt about a subject or learnt in conscious and less conscious ways, through processes which Claxton (1997) has called "osmosis". When learning a foreign language or in teacher training courses for those who are going on to teach a foreign language, (the main areas around which this study revolves), it is not only the content which is important but also the process by which the content is made accessible to learners. The test of what students have really learnt lies in what stays with them long after the particular course is over.

While the end product of teaching may be difficult to define there is perhaps something of the immortal in the influence of an inspiring teacher. Those of us who have had the good fortune to have been taught by such a teacher may well agree, (so too, may those who have not been so fortunate, for the effects of bad learning experiences can stay with one for a surprisingly long time and have powerfully lasting effects). Focusing on the positive outcomes of teaching two authors have taken this idea for the titles of their books, *I teach, I touch the future*, (LaGrone 1998) and *Touch the Future, Teach,* (Johnson. W. R. 1988).

We suggest that the end product of good teaching and more especially good creative teaching lies in the positive influence teachers can exert, both consciously and unconsciously, over the future of the learners who they work with. These are influences that work towards the encouragement and development of each student's future potential beyond the boundaries of the discipline or subject. This has much to do with the ability of the teacher to put over the subject matter in such a way that students are able to internalise and assimilate the new knowledge and relate it to their already existing knowledge and experience. It also has much to do with the generation of real interest in students for the subject being taught and learnt, and also for the way the subject is taught, that is, there is a strong emphasis on the process as well as content.

It has to do with the quality and type of motivation produced in students. When a student's motivation moves away from being extrinsic, and focused on passing the

---

This has been set upon my brain and I haven't had to learn it by heart, it's wonderful! All this relaxing atmosphere reminds me of suggestopedia, of so many things I could not explain, but sensations inside my stomach are wonderful, never experienced before". 4th Year Student of English Philology on a preservice teacher training course option. 1999-2000. University of Jaén. (The words of the student are reproduced exactly)

exam at the end of the course, to intrinsic motivation and where the study of the subject brings pleasure, satisfaction and a desire to know more regardless of any external recognition or reward then perhaps this is the desired outcome of teaching and learning. The seed of curiosity and love of learning for its own sake has been planted. While this can happen with any good competent teaching, those who have been inspired in their learning usually associate it with teachers who were imaginative or special for them in some way. More than anything else perhaps the end product of good creative teaching is in their power to inspire a lifelong love of learning.

When we discussed the idea of teaching as an art in pre-service teacher training courses, students did not find it difficult to see parallels between artists and teachers,

> The painter would be the teacher; the paintbrush, the knowledge of the teacher and the way he/she transmits it; the picture, how the teacher has been able to transmit the knowledge and how the students have grasped or understood it (4th year student).

Another student reflecting in her journal on the concept of teaching as an art, attributes the teacher with almost omnipotent powers,

> Teaching is an art; if teaching is an art the teacher should be an artist. Teachers must have 'love' for the subject they teach and for their students. Teachers create people, the future generations of people. Teaching is creative and powerful, one of the most creative jobs I can think of (4th year student).[83]

Here too we may discover another thread, intertwined both in the process and the product, 'love'. Love of the subject, respect and trust in one's students. Rogers (1994) refers to an account of a seminar aimed to foster creativity in maths which resulted in overwhelming success, and which was attributed to the power of "love and trust."

The place to plant the seeds of creative teaching is in the classroom, with students and for a wider dissemination of the seeds, in courses for trainee teachers. Reaser [84] describes the optimal growth environment[85] for the seed to grow and flourish in

---

[83] Both of these reflections were contributed by 4th year Spanish University students on an English Philology degree course, taking a teacher training option.

[84] Reaser, http://nlpco.com/articles/nlp/TheSeed.htm

[85] Habitat refers to factors like use of space, seating arrangements that help participants to see themselves as part of a class community and to promote real interaction, between everyone in the classroom teacher and students. Grounding deals with the physical environment and the facilities which are provided, together with a consideration for creating opportunities for participants to express their individual identities.

teacher training situations. This covers aspects such as the *habitat*- the *grounding*- the *energy,* the *information* and the *motivation.* (Emphasis added). These factors provide a valuable checklist against which to assess the potential of the teaching / training atmosphere in fostering creative teaching and learning. Reaser leads trainers to consider the nurturing environment in which the seeds are to be set, and asks them to imagine how their choices might contribute to "the greening and blossoming of the human landscape."(2)

We are reminded once more that it is not only the subject to be taught that is important but so also is the need to relate to one's students and their learning processes. This makes the teaching- learning relationship something special which lifts it out of the routine, mundane and monotonous into something truly rewarding and creative for all involved.

In situations where this does happen a type of *symbiotic learning relationship* grows and develops between teachers and learners. Teachers who are open and responsive to those they teach know that teaching itself can be one of the most rewarding learning experiences that their lives present them with.

So perhaps a possible way of seeing the end product of creative teaching is in its ongoing qualities, in the possibility of its affects on the present and future lives of both learners and teachers in positive and rewarding ways which go beyond the subject matter, which open the minds of teachers and learners alike and bestow on them a love of learning which can stay with them forever.

Though I do not believe that a plant will spring up where no seed has been, I have great faith in a seed. Convince me that you have a seed there, and I am prepared to expect wonders. Henry D. Thoreau.

6.8 The symbiotic nature of creative teaching

The four elements which we have briefly described and discussed above; *unfolding, constraints* and *flexibility, personal skills* and *attributes* and the *end product,* view teaching as a process which cannot be carried on regardless of what is happening

Energy refers to factors like building in breaks for rest and exercise, ensuring that the room is well ventilated, Information refers to concerns like making sure that everyone can communicate easily, that material is presented in a variety of ways, how will information and instructions be given, and the means by which feedback will be offered, exchanged and encouraged. Motivation refers to the ways in which the teacher trainer provides both explicit and subliminal messages of encouragement and support, how the individuality of each participant can be celebrated and their contributions maximised.

to the learners. Its essence is in the interrelationship between the teaching and learning processes. A process which cannot ride roughshod over the needs, interests and individuality of learners.

The *unfolding element* depends largely on the interactive element of teaching, on the ongoing development and evolution of the teacher and the learners. The one depending on the other. Good teaching teaches not a subject but a subject to people, and is a process of responding and interacting to the people one teaches that is every bit as important than the imparting of a body of knowledge.

The *skills, knowledge and personal experience* needed to teach well and to teach creatively involve practical classroom skills. It means being able to work on a situation, as it unfolds during the course of the action. It implies the ability to integrate the unforeseen while not losing the general structure of the lesson. Sometimes it even means throwing carefully made plans out of the window in order to respond to the fleeting opportunities that classroom life offers. It also implies an awareness of areas beyond those we may immediately think of as being directly connected with teaching, areas which can enrich our understanding of others, ourselves and consequently the teaching - learning experience. In acquiring this knowledge we are inevitably broadening our own personal knowledge, experience and growing as human beings.

Constraints, we have described as an integral, inevitable and indeed vital part of any creative process. This factor is all too obvious in most teaching situations. Teachers never cease to complain of the limited time available, of the control of the material they have to teach, of the limited resources available. In seeming paradox the idea of *flexibility* runs alongside the constraints, challenging our ability to innovate and be creative within those very constraints. We need to be aware of the 'rules' so that we may know when and how to break them to the advantage of our teaching, our learners and in the cause of flexible, innovative and creative teaching.

In suggesting an *end product* of creative teaching we have opted for an emphasis on an ongoing process where a love of learning is planted, where curiosity is nurtured and where each student sees that they have a contribution to make as individual people with the potential to be creative. We suggest that teaching creatively can be a self rewarding process which by its nature encourages one to continue evolving both personally and as a teacher and which recognises creative potential in all learners.

Thus implicit within our concept of creative teaching is the belief that teaching creatively can become a symbiotic learning process for both learners and teachers.

The progress and development of one is dependent on the other. It has often been said that the best learning experience is the one provided through teaching. This type of experience can only occur when the teacher is open, flexible and is more a facilitator than a teacher in traditional terms[86].

> I see the facilitation of learning as the function that may hold constructive, tentative, changing process answers to some of the deepest perplexities that beset humankind today…We possess a very considerable knowledge of the conditions that encourage self-initiated, significant, experiential, gut level learning by the whole person …We know that the initiation of such learning rests not upon the teaching skill of the leader, not upon scholarly knowledge of the field, not upon curricular planning , not upon the use of audiovisual aids , not upon the programmed learning used, not upon lectures and presentations, not upon an abundance of books, though each of these might at one time or another be utilised as an important resource. No, the facilitation of significant learning rests upon certain attitudinal qualities that exist in the personal relationship between the facilitator and the learner (Rogers 1994:119).

When these conditions are achieved, the results are exciting for everyone involved in the learning experience, teacher and learners alike as Rogers recounts.

> When I have been able to transform a group – and here I mean all the members of the group including myself, into a community of learners, then the excitement has been almost beyond belief. To free curiosity; to permit individuals to go charging off in new directions dictated by their own interests; to unleash the sense of inquiry; to open everything to questioning and exploration; to recognise that everything is in the process of change – here is an experience I can never forget. I cannot always achieve it with groups with which I am associated, but when it is partially or largely achieved, then it becomes a never-to-be-forgotten group experience. Out of such a context arise true students, real learners, creative scientists, and scholars, and practitioners, the kind of individuals who can live in a delicate but ever-changing balance between what is presently known and the flowing, moving, altering problems and facts of the future. (120)

Facilitative leadership in the classroom has a ripple effect. Leaders who facilitate are themselves facilitated. Decisions and responsibility are shared with others, the

[86] See appendix 23,"The Politics of Education: The traditional mode."

students, the parents, and the community. The facilitator provides learning resources from within herself and her own experience as well as from books, materials, or community experiences, and encourages learners to add to their own resources based on their knowledge and experience. In addition doors are opened to resources outside the experience of the group. (Rogers 1994)

One study[87] which assessed the interpersonal skills of teachers, looked at the levels of facilitative conditions that teachers offered to students and found that teachers who provided high levels of empathy were also characterised by a cluster of other behaviours. Their findings showed that teachers who created higher facilitative conditions tended in turn to provide the following:

- More response to student feeling
- More use of student ideas in ongoing instructional interactions
- More discussion with students (dialogue)
- More praise of students
- More congruent teacher talk (less ritualistic)
- More tailoring of contents to the individual student's frame of reference (explanations created to fit the immediate needs of the learners)
- More smiling with students

In addition the classroom activities of these teachers who supported high order facilitative conditions in their classrooms tended to reflect characteristics like:

- The learning goals were derived from cooperative planning between teacher and students
- The classroom was individualised for and by the present class to meet its needs. There were more projects and displays created by the students. The room looked lived in.
- There was freedom from time limits; there were fewer deadlines and more flexible of sequences of order

[87] Aspey D.N & Roebuck F.N 'Interpersonal skills of teachers'

- More emphasis on productivity and creativity than upon evaluation, reflected in the belief that it was more important to carry out a meaningful project than to make tests alone the criteria for success. Less emphasis on grades and tests

Thus one of the main keys to creative teaching lies in the role of the teacher being oriented towards facilitating learning in students a role which is far removed from the traditional role of a teacher as an imparter of knowledge. In following sections of this study we will explore possible ways of developing and working towards creative teaching both from the point of view of teachers and teaching and with a view to encouraging and developing creativity in learners. This is not an area which is clear cut and easy to define. It requires a subtle yet potent blend of ingredients mixed in the right proportions which cuts across methods and approaches of teaching, yet as Appel (1995) suggests, the credibility of a method and its effectiveness rests on the conviction, credibility and motivation of the person using it. If the right balance between the individuality of the students, the individuality of the teacher and the discipline imposed by the subject matter is struck, teaching can quite literally become an art.

III. Factors and areas bearing on creative teacing

INTRODUCTION

In this section we explore some factors and areas which we see as being particularly relevant to both creativity in general and more especially to creativity in teaching. The factors which come into play in any discussion on creativity are multiple and complex, and apply across the spectrum of creativity, be it in the field of art or within the realm of creativity in teaching and learning. This has been one of the threads of our discussion in Section II

'Teaching as an Art'. Our approach in this part of our study has been to look at certain areas which we have found particularly relevant in developing the concept of creativity in teaching and by a logical extension to the fostering of creativity in learners. Thus each part of this section draws on areas which have a dual focus. This dual emphasis means that each of the areas which we have explored has implications and applications both for teachers and their development towards more creative teaching, and for the students they teach.

1. SYNAESTHESIA

Defined simply, synaesthesia is "a condition in which the senses cross over, making it possible to smell colours, taste sounds" (Greenfield 2000: 205), but such a simplified definition belies the complexity of this condition.

Synesthesia (Greek, *syn* = together + *aisthesis* = perception) is the involuntary physical experience of a cross-modal association. That is, the stimulation of one sensory modality reliably causes a perception in one or more different senses. Its phenomenology clearly distinguishes it from metaphor, literary tropes, sound symbolism, and deliberate artistic contrivances that sometimes employ the term «synesthesia» to describe their multisensory joiningsÉ Synesthesia is «abnormal» only in being statistically rare. It is, in fact, a normal brain process that is manifested in consciousness in a minority of individuals.

Psychology often defines different levels of thought on the same topic, and so a term like synaesthesia can be understood as varying from state of awareness that is attainable for everyone, to a complex medical condition. In such cases individuals report sensations in one sensory modality when actually experiencing another, for example, hearing colours or seeing sounds.

Synaesthesia can offer a perspective of the world which is accessible to everyone. By creatively encountering one's environment, one's experiences are not merely visual. Our perceptions are polysensory with the various sensory stimuli homogeneously combined so that when one perceives a situation, the encounter may include seeing, tasting, and smelling.

While developing the faculty of synaesthesia can be a way of enriching our lives and experiences, there are those who have no choice in the matter. Cytowic (1993) in his book'*The Man Who Tasted Shapes,* describes and explores the experiences of a clinical synaesthete, who lived his life experiencing such a crossover in his sensory experiences in which he had no choice or escape. Accounts of the Russian novelist Vladimir Nabokov's experiences complaining to his mother as a child that the colours on his wooden alphabet blocks were 'all wrong' is another example. His mother who sympathised with him understanding his conflict between the colour of the painted letters and his lexically induced synaesthetic colours may have also experienced the same phenomenon.

Two examples of synaesthetes from the world of art are the Russian composer Alexander Scriabin (1872-1915) and the artist Vasilly Kandinsky (1866- 1944). Cytowic describes how Scriabin tried to express his own synesthesia in his 1910 symphony *Prometheus, The Poem of Fire*, for orchestra, piano, organ, and choir. It also included a mute keyboard, a *clavier a lumieres*, which controlled the play of coloured light in the form of beams, clouds, and other shapes which flooded the concert hall and culminated in a white light so strong that those attending found the light unbearably bright and painful to the eyes. .

Kandinsky, who first trained in Munich for a career in law, soon turned his interests to art and became one of the first and great pioneers of 'pure' abstract paintings. He believed that 'the true artist seeks to express only innermost feelings' (*The Art Book* 1994: 243) and had a deep sympathy for sensory fusion, both synaesthetic and as an artistic idea. He explored harmonious relationships between sound and color and used musical terms to describe his paintings, calling them «compositions» and «improvisations.» His own 1912 opera, *Der Gelbe Klang* («The Yellow Sound»), specified a compound mixture of color, light, dance, and sound typical of the *Gesamtkunstwerk.*

The neurologist Cytowic has suggested that synaesthesia may be a primitive sensory mode in which early animals perceived the world, although as Greenfield points out this does not explain the differentiation of which humans are now capable, nor how that differentiation can break down into synaesthesia. Another possibility that has been suggested is that there are connections between each of the relevant brain areas, and that signals intended for one part are sometimes transmitted to others in error. Yet another suggestion is that synaesthesia is an issue of overactive associations. Greenfield (79) gives the example of one case where the woman in question always experienced the taste of baked beans when she heard the name 'Francis'. While similar instances may be far from uncommon for many people, even forming, to various degrees, part of one's own everyday experience, Greenfield suggests that this type of selective pairing hints at 'a particular covert connection between memory and, in the case cited above, hearing. A much more controlled example of this pairing effect is seen in the following case.

> A subject wore special glasses for twenty days. One eye saw the world through a blue lens, the other through a yellow lens. When the glasses were removed, the subject still reported a distortion in vision. When he turned his neck one way he saw the colour complement of blue and vice versa. The interpretation runs that he had started to associate movements in his neck with an ensuing experience of colour. (79)

For an adult, it is clearly unusual to experience a sensation in one modality triggered purely by a sensation in another. For example, to see a colour every time you hear a sound. Clinical synaesthesia is quite rare. Cytowic estimates that its occurrence is in the region of 1 in 25,000 individuals. In clinical tests synaesthetes appear balanced and their neurological examinations are unremarkable. Most synaesthetes claim that their memories are excellent and cite their ability to experience parallel sensations as the reason for this, saying for example, 'I know it's two because it's white', and often claim that conversations, prose passages, movies and dialogue are typical subjects of detailed recall.

One researcher into synaesthesia, Baron-Cohen[1], (1993) who has a developed a Neonatal Synaesthesia Hypothesis describes how in early infancy, probably up to four months of age, all babies experience sensory input in an undifferentiated way, sound triggering not only auditory stimuli but also visual and tactile experiences, it seems that babies may experience something resembling psychedelic states. Others (Lewkowicz and Turkewitz 1980) have also found the existence of synaesthetic

[1] Electronic source: Baron-Cohen.http://psych.cs.monash.edu.au/v2/psyche

states in very young babies. They describe how these infants show only a small change in heart rate when shown a patch of white light followed by a burst of white light at an intensity that adults have rated as of a similar intensity, but they show a significant change when the light was followed by a sound of high or low intensity'. Baron-Cohen has studied the responses of infants to spoken language and has found that activation occurs not just in the temporal lobe, where one would expect them, but over the occipital cortex as well.

The rare type of clinical synaesthesia which exists in a very small percentage of the population is often seen as curious, making the lives of those it touches different from those whose sensory experiences are more normal it is not Synaesthesia is not simply the ability to create metaphors, and we should be clear that the phenomenology of true synaesthesia distinguishes it from metaphor, literary tropes, sound symbolism, and deliberate artistic contrivances that sometimes employ the term synesthesia to describe their multisensory joinings.

Day[2] (1996) takes current research into the posited relationships between the hippocampus, the neurological condition of synaesthesia, and the construction of synaesthetic metaphors as his starting point in a study which explores the cultural and linguistic influences which are influential in the forming of such metaphors. Day has described synaesthetic metaphors as those in which a certain perceptual mode is initially specified, or may be assumed, but where the imagery is linguistically related in terms belonging to one or more differing perceptual modes. Common examples of such metaphors in English include phrases like 'loud colours', and 'dark sounds'. The study revolves around the analysis of data collected from various works in order to determine the frequency of cross-sensory references[3], and points to the effects of cultural events, semantic processes and time on the forming of synaesthetic metaphors. The ability to form fresh metaphors is often seen as a yardstick for measuring the originality of the writer a poem, which can reframe and offer new associations and interpretations enriching experience.

> Metaphoric expressions of the unity of the senses evolved in part from fundamental synaesthetic relationships but owe their creative impulse to the mind's ability to transcend these intrinsic correspondences and forge new multisensory meanings. Intrinsic, synaesthetic relations express the

[2] Electronic Source. 1996. <http:// psyche.cs.monash.edu.auv"/psyche-2-32-day.html

[3] Day demonstrates his method by taking the novel *Gravity's Rainbow* by T. Pinchon where he looks at the synaesthetic metaphors that appear in it. Two of his examples are as follows; 'a sour smell', which Day notates as 'smell->taste', and can be interpreted as smell experienced in terms of taste. Another example, 'the bitter chuckles', is explained terms of taste, interpreted as 'hearing-> taste.

> correspondences that are, extrinsic relations assert the correspondence that can be (Marks 1978: 103).

However we chose to view synaesthesia, what is clear that the human brain does not merely absorb sensory experiences of sight, sound, smell, taste and touch coming to it from the outside world, it also stores them in ways which allow us to later draw on them sometimes consciously, often unconsciously to shape our own realities.

> We see things with our brains, not our eyes. If reality is indeed not *out there* but inside our heads, then what we see must depend on the unique contents of our personalised brains, - our memory (emphasis in original) (Greenfield 2000: 79)

Metaphor is more than a question of language or of words, human thought processes are in themselves largely metaphorical, and so metaphors as linguistic expressions are possible precisely because there are metaphors in a person's conceptual system. The essence of metaphors is understanding and experiencing one kind of thing in terms of another. (Lakoff and Johnson 1980) and as such forms part of creative vision and expression.

We believe, in common with for example (Andrews 1978, Murdock 1987, Gordon 1995) that by developing our sensory responses we will be enabled to live richer lives filled with a variety of sensory experiences. This can lead to an expanded awareness where we view the world more imaginatively and creatively, and in turn may lead us to more creative outcomes. It is within the ability of most human beings, not only gifted writers, composers and artists, to create their own metaphors which involves the ability to express one sensory mode in terms of another. Koestler (1989) points to the aesthetic satisfaction that can be derived from metaphor, imagery, and related techniques and attributes this to the "emotive potential of the matrices which enter into the game" (321), where an emotive potential is the capacity of the matrix to generate and satisfy participatory emotions. These depend on partly on individual factors, and partly, as has already been mentioned, on the collective attitudes of different cultural factors. The emotive potentials of the sense modalities – sight, sound, smell, touch, differ widely in different people.

Developing and honing the ability to let sensory triggers ripple into cross sensory areas, something which we must surely all do even if we do not consciously do it, may be one way of enriching our experiences. Koestler describes how he can always smell the dust cloud of the galloping horses in a western film, and most people will be able to recall powerful examples of their own.

1.1. Implications and applications of synaesthesia for creative teaching

Metaphors can help us to understand a concept more clearly and this in itself has implications for teaching. Metaphors do not always have to take a purely written form. On teacher training courses that we have given, students have produced visual metaphors related to themes studied during the course, some examples of which are included in Appendix 19 of this study. Good teachers know or acquire the ability to be able to express an idea or a concept in terms of something else, often shedding new insights for learners enabling them to bring a new and more personal understanding to new material information or ideas.

From the point of view of creativity we believe that learners should be given opportunities to experience situations where they are encouraged to draw on different sensory modes and stored associations in response to different situations. This can be done from the point of view of heightening awareness and enriching learning experiences. They may also be designed to lead on to activities like creative writing of stories or poems, or to ideas which can be expressed visually. Students may be encouraged to express ideas in different contexts which help them to understand them and retain them better. It is also a useful exercise to have students share their own metaphors with their fellow students for the insights they can provide into other peoples' ways of thinking and for the illumination it can so often shed onto a concept not previously viewed in such a way. Even without requiring learners to produce an end product it can very rewarding and valuable for them to use and exercise their innate synaesthetic abilities, which perhaps have never been developed, or which have fallen into disuse, simply in order to enrich their lives and experience. The ability to respond with different sensory responses is one which can be developed but which is rarely given any attention in most educational settings.

From our own experience and insights gained from talking to teachers and teachers assistants in primary teaching situations in Britain, and working with trainee primary school teachers in the Spanish education system, the impoverished store of sensory responses which many children seem able to draw on is in no way aided by teachers' lack of awareness of ways of tapping into the sensory representational modes of learners and teaching methods which still teach each child in exactly the same way regardless of their ability to understand, assimilate new material and express themselves. In the rush to complete the syllabus and carry out and mark tests, many children get left by the wayside, never understanding what they are said to have been taught and never catching up. The testing methods used often help to compound the problem as they are often limited to linear, sequential format which are geared to verbal content, and visual and kinaesthetic learners usually fare badly in these types of tests.

This, however, is not only a problem with less able children, or children who have been labelled less able because they do not fit in with or respond to the teaching methodology adopted, or which teachers feel obliged to adopt in the face of pressures of time and imposed curriculum demands. Murdock (39) describes the case[4] of a young child from a high achieving family who never seemed to be truly present in the classroom and rarely spoke or participated in classroom activities, until his interest and attention was somehow unlocked by sensitive teaching and suitable activities.

It is not, however, only in isolated cases where learners will benefit from activities that work on and aim to develop sensory awareness. Murdock offers a guided visualisation exercise that is specifically designed to develop cross-sensory responses in children through to adults. This specific activity, which she calls 'Crossing Senses'[5] takes five to ten minutes and needs a short period of follow up time. The procedure is carried out in a similar way to any guided visualisation activity. Murdock suggests that 'Spring' from Vivaldi's, The Four Seasons is played at the relevant point in the activity, although there is a wide range of other music which could be used. In our experience using music enhances the experiences of participants in guided visualisations and it is worth experimenting with different music for the different responses that it may trigger off. Similarly it is also worth trying these types of activities without music on occasions and later discussing the effect on learners, especially where we want them to be acutely aware of different sensory responses.

Murdock gathered responses from her young students after the activity, which illustrate how the experience of attempting to cross link sensory representational systems comes easier to some than others

1. It tasted like chocolate ice cream and smelled like a rose. It looked like I was riding a bike and running at the same time.

---

[4] Two months after school started, I began to notice that Carlos was one of the first to close his eyes during an imagery exercise and that he enthusiastically verbalised his images. The children and I listened raptly as he told us what he 'saw' during the 'Undersea Adventure' exercise:'"I walked down the tunnelway and entered the bubble room, I felt strange in the room. There was water all around it. But in the room there was no water, only soft pillows. Outside there was a skateboard, and I got on the skateboard and skated all the way up to the top of the room. There was a wheel of fish at the top, with a shark in the middle and killer whales and dolphins all around. Then it was time to come back here". After hearing his responses to many imagery exercises, I noticed that every time we closed our eyes and imaged, an entire movie, with a complex plot, unfolded for Carlos. Many times he would draw pictures of his images after an exercise and then describe to us what had happened. As we accepted his visual images, Carlos gained more and more confidence to *speak* his ideas. (Emphasis in original) He became more and more articulate. As the months progressed, Carlos began to 'dream' less in class and get more work done

[5] The guided visualisation "Crossing Senses" can be found in Appendix 5.

2. I listened to the music and I really couldn't do all the things that you asked us to do.

As we have mentioned in the section on guided visualisations, it is important to recognise that comments like the second one are common responses when first working with guided imagery. Many children say that they don't 'see' anything at first, so of course, do many adults. Murdock suggests that a possible response is to ask the student or students experiencing difficulty, how they felt during the exercise. They may say they felt relaxed or quiet and she tells them that is enough. They don't have to see, hear, taste, smell, or feel images, but the images may become more vivid as they practise these exercises, the imagery muscle is like any other muscle; it has to be exercised to work.

In our own experience, while this particular activity was designed to stimulate cross sensory responses, to a certain extent many guided visualisations will also trigger cross sensory responses. In the section on imagery, we present feedback from an activity which was carried out without music, students simply receiving input through the spoken word, listening to a poem[6], and being encouraged to allow whatever imagery was suggested to them by the words they heard, to surface in their minds and be enjoyed. Their highly focused listening produced evidence of a variety of sensory responses which are included in Section IV Part 5. However we include here a few comments from the participants which give an idea of the type of response the activity produced.

- I was the person eating those delicious plums and could feel the taste, the smell and even the weight and shape of the plums
- It was a mouth-watering poem; I wanted to taste that fruit.
- It was as if I was eating fruit, drinking water, listening to music.

These are not exactly synaesthetic responses, but do seem to reveal a highly sensory and individual response to the auditory stimulus of the reading of the poem, This was more than a simple registering of the words the consciousness, where allowing the words to reverberate for them personally as individuals and to trigger a wide range of sensory responses the experience of listening to the short poem was clearly heightened and made sharper and more personally meaningful. Following a procedure like this can make poem come to life in different ways for each individual involved. The words of the poem are no dry and dusty evocations but living

[6] The poem was 'This is just to say ' by William Carlos Williams (1883-1963)

reverberations of each participant's experience and memory. Such approaches can be helpful in and a valuable tool for unlocking the power of poetry for learners.

Input of course does not always have to be based on the spoken word accompanied by music. In some activities we devised to foster cross sensory responses, 'Listening in Colour 1 & 2'[7], learners were first exposed to words put to music, rather than music being played to create an special atmosphere or environment. They were asked to concentrate on visual and colour references in the lyrics, in conjunction with the music. In a follow up activity instrumental music was played to the students and they were encouraged to let colours be suggested to them by the music without the aid of words.

We suggest that an awareness of synaesthesia in its more everyday form could be drawn on more in teaching, with highly rewarding results. It is a faculty which lies untapped in all of us, and which if we are prepared to develop it more could help us to confront our individual realities more creatively. Developing synaesthetic awareness is an important element of creativity, but just like many other areas of knowledge which seem to have important implications for education and personal development, for example Multiple Intelligences Theory, it is all to often ignored or relegated to those areas, which because they seem not to be directly related to the subject matter are consequently written off as not relevant or not worthy of class time being invested in it.

It is also worth bearing in mind that synaesthetes often possess excellent memories, some of whom attribute this to an ability to experience parallel sensations, thus reinforcing the memory as it is stored in different sensory modes at the same time. This is a useful area to work on to help learners develop more efficient and individual learning and information retention techniques and has strong links with the use of imagery in learning which we have dealt with in the section on imagery.

2. CREATIVITY AND IMAGERY.

In this section we explore links between creativity and imagery. We will look at this theme from three main perspectives:

[7] See Appendix 22 for examples of these and other activities for use in the language classroom, with the aim of fostering creative outcomes.

- The role of imagery in cognition.
- Images, imagery and imagination. The importance of imagery in life, in teaching and learning and in encouraging creativity in learners
- Guided visualisations and other activities which encourage and draw on the use of imagination and imagery.

Creative thinking is often associated with the ability to generate images in the mind's eye. Creative outcomes usually start off as an idea or an image in the creator's mind. In section II we suggested a possible framework for creative processes and commented on how a mental image may be the starting point for a piece of creative work. As the work evolves new images or modified versions may supersede, be superimposed on or juxtaposed with the original image and the envisaged image of the finished work changes accordingly. But imagery is not confined to those who are especially creative and has been recognised as forming an integral part of human thought and cognition (Damasio 1994, 1999, Ellis 1995, Stevick 1986).

2.1. The role of imagery in cognition

The OED[8] defines an image as "a mental representation of something, especially a visual object, not by direct perception, but by memory or imagination; a mental picture or impression; an idea, conception". Another definition from the world of language teaching is suggested by Stevick (1986:16) who describes 'image' as "a composite we perceive (more or less vividly) as a result of the interaction between what we have in storage and what is going on at the moment". It is accepted that all humans, have, to a greater or lesser degree the ability to form mental representations of things.

Creative thinking is often associated with right brain hemisphere[9] type of thinking and mental processes. Although imagery tends to be associated with right brain activity, research has shown that structures within the posterior portion of the left hemisphere of the brain appear to be crucial to the generation and the experience of imagery.

In suggesting that the use of imagery has an important role in teaching and developing creativity it is worth bearing in mind that imagery is an area which has

[8] Oxford English Dictionary

[9] See Appendix 25 for a brief outline of left and right brain theories

long attracted the interest of thinkers and psychologists and continues to be in the focus of research in the field of cognitive psychology.

Imagery has been conceptualised in various ways. Richardson (1999: 1-2) has identified research on imagery under four headings.

- A focus on imagery as a personal or phenomenal experience: the layman's or non-psychologist's approach
- A focus on imagery as a mental or internal representation: the psychologists' focus
- A focus on imagery as a property or attitude of the materials that subjects have to deal with in laboratory experiments: a focus adopted in early attempts in investigating imagery.
- A focus on imagery as a process that is under strategic control: a focus which figures prominently in recent research, but which originates in the earliest discourse concerning mental imagery.

For the purposes of this study although we are not directly concerned with the scientific investigation of imagery, it is however, useful to consider the long standing tradition of research into mental imagery, for the insights it brings into the different types and the quality of imagery that human beings are capable of producing and for the apparently important role of imagery in human cognition.

2.2. Research into mental imagery

Investigations into mental imagery can be traced back over more than 2,500 years (Richardson 1999). In the 1880s, Galton (1880: 83-114), intrigued by the role of imagery in human thought processes, carried out research through questionnaires, one example of which is often referred to as Galton's "Breakfast table questionnaire"[10], where participants were invited to describe the quality of the mental imagery generated by a series of objects or scenes.

It is worth noticing how the importance of imagery and different sensory modes have, in recent years, been incorporated into mini questionnaires of a similar type into teaching and learning materials, not with the objective of analysing student

[10] Galton's "Breakfast table questionnaire" is included in Appendix 1

responses for research, but as a way of sensitising learners to their own ways of imaging and responding to different sensory stimuli and to raise awareness to an area of which not everyone is in fact conscious. See for example, Lawlor (1984: 18-20) and Revell & Norman (1997: 30)[11] which combines reading, listening and speaking practise.

An interesting aspect of Galton's questionnaire was in giving participants the opportunity to describe their mental experience in their own words, an element which Richardson points out, is not common in modern questionnaires. In our own experience we have found it particularly important that respondents to questionnaires are given the opportunity to describe their experiences in their own words. Experiences related to, for example to, guided imagery and creativity oriented activities, can by their nature be highly original, and to confine responses to limited and prescribed categories, serves to limit and devalue and depersonalise participants' responses[12]. For examples of feedback collected from guided visualisations see appendix.

Galton was reportedly surprised (Richardson 1999: 10) at the lack of responses of fellow scientists whom he expected to be able to give accurate responses to his enquiries.

> To my astonishment, I found that the great majority of the men of science to whom I first applied, protested that mental imagery was unknown to them, and they looked on me as fanciful in supposing that the words "mental imagery" really expressed what I believed everybody supposed them to mean (1880: 302).

From this, Galton inferred that the scientists of his time had "an over-readiness to perceive clear mental pictures as antagonistic to the acquirement of habits of highly generalised and abstract thought" (304). He then went on to seek responses from people he met in general society, from whom he obtained quite different accounts and responses:

> Many men and a larger number of women, and many boys and girls, declared that they habitually saw mental imagery, and that it was perfectly distinct to them and full of colour. The more I pressed and cross-questioned them, professing myself incredulous, the more obvious was the truth of their first assertions. (302-303 cited in Richardson)

[11] Examples of these activities appear in Appendices 3 and 4

[12] For some examples of participants responses to guided visualisations see appendix 5 and Section IV part

Since Galton's time, research on mental imagery as a phenomenal experience has moved on from collecting verbal accounts of the imagery faculty of humans, but this approach, used outside of cognitive psychology, was also used to explore other areas of imaginal experience, like after-imagery, dreaming imagery and hypnagogic imagery. Subsequent approaches like those of Betts (1909) who developed the Questionnaire upon Mental Imagery (QMI) based on Galton's work and Marks (1973) with his "Vividness of Visual Imagery questionnaire" used methods which obtained quantitative imagery ratings.

The focus moved away from research based on introspective methods like those of Galton, with reservations expressed by some experimental psychologists who saw problems in introspective methods, seeing their main use as in providing hypotheses that could subsequently be tested by non –introspective methods. While mental images were identified by some as the most obvious elements into which thought processes might be introspectively analysed, others were unable to agree with these claims when subjects taking part in tests were unable to report any kind of conscious experience or simply one of indescribable or "imageless" thought.

The "imageless" thought issue was picked up by the behaviourist movement who argued that mental phenomena, by their very nature could not be the object of scientific observation. A view which came to dominate research into human experimental psychology until the rise of modern cognitive psychology during the 1960s, when as Richardson (1999) notes, mental imagery was reinstated as a legitimate object of scientific observation. The legacy of the "imageless thought controversy" was that it cannot be assumed that imagery plays a fundamental causal role in all forms of human cognition, instead as Richardson claims, most researchers are content to assume that cognition involves both imaginal and non-imaginal representations.

Another area which has come under scrutiny is centred around where imagery is generated in the human brain. Evidence on the neural mechanisms involved in image generation can be measured using physiological recordings. For the ongoing left – right brain mode debate the matter seems still to be unresolved. Loss of brain imagery as a phenomenal experience following brain damage does not appear to be related to damage to the right cerebral hemisphere (Richardson). However, research using brain imaging technology suggests that structures in both hemispheres may be involved. Kosslyn (1980) suggests that imagery should be regarded not as a unitary psychological function but as the product of a complex system of interrelating components or modules. This principle has an important implication in that one should not assume that there is necessarily one single structure

within the brain that is causally responsible for imagery, rather the distinct components may well be physically separated and distributed at different sites across the brain, as indeed proves to be the case with many brain functions. Vision for example involves widely separated but closely linked brain areas. Using electrodes placed into the brain cells of monkeys has revealed that their visual system contains at least 34 maps of their visual world, each analysing a different aspect, such as colour or orientation. A similar vision processing system is believed to be true for humans (Restak 2000).

Neurologist Damasio (1994) has shown that the neural basis of knowledge is dependent on image formation which seems to occur not in one particular location in the brain, but rather is distributed in small packets in different neural locations. Along with external responses like behaviour, complex organisms like the human brain and body also generate internal responses, some of which constitute images (visual, auditory, somatosensory and so on). These make up, according to Damasio "the basis for mind" thus viewing an essential requisite of mind as 'the ability to display images internally and to order those images in a process called thought' (89-90). Whatever the areas of discord, cognitive scientists agree that people's ability to create, contemplate and manipulate images depends upon the integrity of structures, mechanisms and processes in our brains.

Ellis (1995) observes how thinking is built up of combinations of images in different modalities and patterns, and, in this way imagery is a even more basic event than thinking and can have an important influence on reasoning. Thus images form an important role in our mental processes.

> They help us make sense of and organise incoming data; they provide us with ways to reason and make decisions and to select or develop a motor response…whatever mental activity we have going on, mental images are certain to participate to some extent. They are not bound by time and so may be moments in the past or of possibilities for the future (Arnold 1999: 260).

So where does this place imagery generation in human brain functioning? Is it a left or right brain function? If we consciously focus in our teaching, on the generation of personal imagery as for example in imaginative work and guided visualisations are we in fact working the right brain mode, that hemisphere so often neglected in education, or not?

Richardson (1999) summarising the results of research suggests that right hemisphere appears to be involved in the transformation and manipulation of images

once they have been generated within structures in the left hemisphere. Structures within the posterior portion of the left hemisphere of the brain appear to be crucial to the generation and the experience of imagery. Structures in the right hemisphere appear to be involved in the transformation and manipulation of mental images. Thus it would seem that if we require students to activate and draw on personal imagery we are activating both hemispheres of the brain.

Much of educational practice is however, still based on left brain type functions. Language teaching in particular still focuses to a large extent on the verbal and analytic methods which may be justified if the language to be studied is viewed as an academic pursuit. Where the professed aims of teaching and learning a language are to be able to use that language as a true means of communication, just as one uses one's native language, then a bias towards left brain processing, while it has its place and function should not be seen as an all purpose tool, even if it is used as such by many teachers.

2.3. Use of imagery in memorising techniques

Imagery has long been used as way of facilitating the memory through the use of mnemonics. Used as an adjective 'mnemonic' can mean pertaining to memory or pertaining to the improvement of memory,used as a noun – 'mnemonic' a device or system for improving memory'. The effectiveness of classical mnemonics, many of which originated 2000 years ago in times of ancient Greeks and Romans have long been recognised. But perhaps we should bear in mind that such techniques originated because the ancient philosophers 'were distinctly dubious about the merits of a written culture' (cited in Rose 1993: 62) and that it seems that Socrates claimed that 'writing is inhuman, in that it pretends to establish outside the mind what in reality can only be in the mind' and that 'writing destroys memory'. Instead it was believed that memories should be trained. This involved the generation of images and the orderly arrangement of the objects to be remembered.

> He inferred that persons desiring to train this faculty must select places and form mental images of the things they wish to remember and store those images in the places, so that the order of the places will denote the things themselves, and we shall employ the places and images respectively as a wax writing-tablet and the letters written on it (Cicero, De Oratore, ll, lxxxvi, 351-4 cited in Rose, 1993: 63).

Modern versions of these techniques often suggest that the more bizarre or vivid the images used the more effective the memorising process will be. See for example

Lawlor, 'Add bizarre or exaggerated touches, the memory will retain things which are out of the ordinary. Do not be afraid to make your images outsize or ridiculous', (1988: 144) which echoes the words of a Latin text quoted by Rose.

> We ought then to set up images of a kind that can adhere longest in the memory, and we shall do so if we establish likenesses as striking as possible… if we assign to them exceptional beauty or singular ugliness, if we dress some of them with crowns or purple cloaks, for example so that the likeness may be more distinct to us, or we somehow disfigure them, as by introducing one stained with blood or soiled with mud or smeared with red paint… this too will ensure our remembering them more readily. (64)

However research carried out to ascertain the effects of using bizarre and unlikely images in mnemonic techniques has shown that instructions to produce bizarre or peculiar images has produced increased recall performance when compared with standard learning instructions that do not specify any particular learning strategy.

> Studies that have attempted to separate the effect of bizarreness from the effect of imaging per se have failed to find any additional effect of constructing bizarre images over and above the benefit of using mental imagery (Richardson: 119).
>
> When the construction of bizarre images is used as a part of the imagery producing mechanism to add in memory retention it may take longer and may result in poorer performances, and according to Richardson "bizarreness is thus not a very important factor determining the beneficial effects of imagery in learning and remembering". (119)

However in the natural extension of the use of imagery, that of the generation of creative ideas, we suggest that producing, or allowing the mind free rein to produce and juxtapose images of any type, bizarre, unlikely and so on can be a valuable component for creative thinking [13].

If the types of images conjured up to aid memory retention are not particularly influential in memory, incorporating other types of 'images', in the forms of smell, taste, feelings and movement might be useful. Even when we are not making any particular effort to remember something it seems we naturally draw on these types of memory images. Memory, especially of past experiences often seems to be stored

[13] See Appendix 12 "Creativity training" also Appendix 22 "Creativity activities for language classrooms"

in vague sensations related to feelings and emotions, which are not always easy to describe or pin down, but nevertheless in some strange way stay with us for ever.

We have observed that people have referred to this type of memory sensation when revisiting a place, perhaps where they only lived for a short time as a young child. It seems that many sensory memories are absorbed in a subliminal way and while we acknowledge and even strongly feel their presence we are unable to put them into words, they seem to remain as a type of oceanic and undifferentiated memory.

Paivio (1971) has shown how imageability is a good predictor of memory performance in tasks which involve the learning of individual items. The image provoking potential of material is directly implicated in the mechanisms necessary for learning and remembering and so the actual process of constructing images gives rise to more effective performance in memory tasks.

This may shed some light on why those who do not excel at abstract thought find such difficulty in memorising or learning such material. If, however the material can be presented by the teacher or lecturer in such a way that it triggers imagery of some type, or if the material can be personally organised by the learner in such a way that it can be linked to recoverable images, (for example through the use of mnemonics) then the material may be more easily absorbed, assimilated and available for later recall. Research has shown that the spontaneous use of imagery in verbal learning tasks appears to be relatively high and that the use of imagery is associated with relatively high levels of performance. Training in the use of imagery has also been shown to be of use. It is known that various techniques prescribed for orators in Greek and Roman times included the explicit use of imagery.

According to Richardson (1999: 117) experimental research on the efficacy of giving instructions to students to use mental imagery in learning verbal material has generally demonstrated consistent, reliable and substantial improvements in performance. Mental imagery may thus be counted amongst the different forms of cognitive procedures that determine how effectively information can be remembered. It is worth considering to what extent if any, that learners are shown the possible advantages of training the imaging faculty and of drawing upon imagery in their learning processes, and if they are ever instructed to use imagery as learning strategy.

As we have discussed elsewhere, with reference to teaching 'thinking' Puchta[14] (2000) and Robles (1998) and working on learners' self esteem in language

[14] Speaking at an IATEFL TT SIG Symposium Madrid 2000

classrooms it is possible to teach other things alongside and through the actual subject material. Indeed either consciously or unconsciously teachers do teach a great deal of other things alongside the main content of their planned lessons. For example more attention is being paid at the present time to learning strategies and to ways of broadening learners' repertoire of strategies on which they can draw to aid them in the learning process.

Arnold (1999: 16) suggests that when used appropriately, images can provide a strong impetus for learning. Concentration can be improved through becoming aware of and developing the faculty for imaging. Neville (1989) has suggested that simple exercises can be used to retrain the imagining processes, "which like language, significantly affects the child's ability to learn, develop peer and adult relationships, to pursue goals and to experience pleasure". (34)

Puchta (2000) has also emphasised the need to help children develop their concentration and thinking strategies[15], vital in any learning processes and all too often overlooked. He demonstrated how, rather than this being an extra burden for teachers it can be organised to run parallel to language teaching and learning, and predominantly through the medium of images and imagery.

We would therefore suggest that imagery is an important element in learning which is often neglected in classrooms. Exploiting imagery in learning processes could help in everyday learning tasks. More specifically drawing on personal imagery is a rich source of inspiration which is all too rarely used in classrooms and which is a basic element in areas where teachers wish to encourage and develop learners' creativity. Introducing techniques, strategies and activities which draw on imagery might help redress the imbalance of teaching approaches which are biased towards certain types of learners and certain types of learning modes.

2.4. Biased focuses in classrooms

Biased focuses can leave some learners feeling that they are not catered for, or that they are lacking in some way compared with, for example, academically brighter students. Biased focuses also have another disadvantage; they tend to consolidate and reinforce already existing learning and teaching preferences. It could be beneficial

[15] This philosophy and approach is well demonstrated in a language course Puchta and Gerngross have developed for use with young learners, Gerngross.G & H.Puchta 1998 Playway to English C also Sheenan (1966 & 1967) and Cambridge University Press. Edition Helbling

for all involved, both teachers and learners, to explore less frequently used channels and thus open up 'new' and favourable possibilities which can broaden and extend the faculties of all learners. Activating more cognitive processes will draw on and use more of the brain's potential and this can only be a good thing bearing in mind how we are continually being reminded of just how little of the brain's potential we actually use.

Within this area of biased focuses *we would include:*

- A focus on activities and exercise which require left brain type processing, (logical, analytical) as mentioned above at the expense of right brain processing
- A focus on logical-linguistic types of intelligence [16] (at the expense of other 'intelligences'
- A focus on teaching methods and approaches which always gravitate towards presenting information and providing exercises in one sensory mode, for example auditory or visual, at the expense of the other sensory modes which may be beneficial for other learners.
- A focus on 'serious' activities and exercises at the expense of light-hearted, and amusing activities, often associated with the age of the students, a commonly misguided belief is that with older or adult learners one always has to provide serious, adult like activities
- A focus on materials which are imposed from outside of the learner, forgetting and neglecting the vast sources of ideas experiences and associations that each and every person possesses
- A focus always on conscious thinking and thought processes, when it is known that a great deal of learning and input is acquired through unconscious or 'pre-conscious processes'.
- A focus on rapid responses with little or inadequate provision of thinking or incubation time.

Using personal imagery as a starting point can provide a firm basis for the generation of language, both spoken and written. It could also lead to the generation of graphic

[16] For an outline of Gardner's Theory of Multiple intelligences, see Section III Part 4

representations which may 'speak for themselves' or also lead to the generation of language. It can lead to more personal involvement, growth and creativity.

2.5. Images, imagery and imagination

We have already seen a definition of an image as 'a mental representation of something, especially a visual object, not by direct perception, but by memory or imagination; a mental picture or impression; an idea, conception'. The OALD defines imagination, as 'the ability to form mental images or pictures', and while this maybe an accurate definition, and describe something which it is claimed all humans are able to do, it does perhaps have its shortcomings. It fails to take into account an additional element which we often seem to imply when we say to someone "use your imagination" or ask a student to "imagine you are an alien viewing planet earth for the first time" or "you are a child from an area of Africa stricken by drought and famine', to be met with the response," well how can I possibly do that if I am not an alien or a starving child in Africa. I have never been in those situations so how can I imagine them? ".

Not everyone feels themselves to be so limited by the constraints they feel their own internal world imposes on them. The students[17] who wrote these words clearly experience no such limitations.

> I always have the sensation of inhabiting a world different from ours, but at the same time complementary to it. I sometimes think that improbable physical things are probable in my created world, such as flying... Everyday of the week has a different colour in my private world of associations. I sometimes have difficulty in tearing apart my beliefs from this imagined world.
>
> Nor this one;
>
> Sometimes I think I'm too imaginative, I very often have my head in the clouds, and sometimes I can invent alternative realities and situations different to those we usually live…sometimes the power of my imagination is so strong that I can feel and notice sounds, voices, images around me, just believing that.

[17] Fifth year Spanish students at the University of Jaén on a degree course in English Philology, following a preservice teacher training course. 1998.

While we use images (and not only visual images) in our imaginations, there is also the implication of drawing on our own experiences in some special way and having the ability to create new scenarios extrapolated from them, of moving out beyond the realm of what we have actually experienced to create new worlds.

Arendt (1978: 76) has described the essentiality of imagination as, "Re-presentation, making present what is actually absent, is the mind's unique gift, and drawn from vision's experience, this gift is called imagination". A gift is something precious and so should we consider the imagination, cherishing and nourishing it, never allowing it to fall into disrepair through lack of use and nourishment.

The world of Harry Potter[18] is another such imaginative world which millions of children world-wide have become entranced with and entered into. It is a world which is a clever blend of what all children know about life and people, what children want and don't want, juxtaposed with things most people have never known or will ever know in their real lives. It is a work of the imagination, and while most of us will never find the means to generate such stories and have the dedication and discipline to put that imagination down in words, it is a cheering thought that so many children and adults alike have entered his world and been all too happy to spend some time there. Especially so as we now live in a world where we are all constantly bombarded by ready made visual images and virtual realities, which we can take or leave, while the world of Harry Potter and those created by other very imaginative writers have the overwhelming advantage that they create worlds in which each and every one of us can participate individually in the creation of the story making it our own, by conjuring up our own personal mental imagery to run alongside and intertwine with the story created by the author.

The extent to which reading influences one's creativity and imagination may be hard to assess, but certainly reading, by maximising our chances of brushing up against other realities, would seem to be one way of developing the imagination, if one is open and receptive. One student[19] describing her evaluation of herself as an imaginative person said:

> I often daydream. I am able to imagine situations that do not exist. I think it may be because I like reading very much and reading books is a

[18] Rowling.J.K. 1997 Harry Potter and The Philosopher's Stone, 1999 Harry Potter and the Chamber of Secrets, 1999 Harry Potter and The Prisoner of Azkaban, 2000 Harry Potter and the Goblet of Fire: Bloomsbury Children's Book.

[19] Fifth year Spanish student at the University of Jaén on an English Philology degree courser following a preservice teacher training course 1998

> way of travelling to other worlds and to other lives which are different from mine.

The generation and use of personal imagery, through reading and listening and imagining are fruitful areas to follow up. They are important areas for one's personal development and in teaching in general, but assume major importance if we are dedicated to fostering and developing creativity in our students.

Any discussion on creativity with writers, painters, or composers, will reveal that it is not always easy to track down the source of their creative inspiration for a particular work. Creativity emerges from deeper sources than we can always be conscious of. Jean Houston (1982) has called these sources 'inscapes' which for their parallel with the (land) scapes that we view from outside, and which vividly capture the concept of space where we are free to travel without the constraints of time or logic and where, 'by thinking in images, ideas emerge that would otherwise be impossible. (134)

Houston has described an experiment carried out in the 1920s in which children were specifically taught to use imagining processes, and how years later these children, then in their teens were 'more creative and better able to draw'. As Arnold (1999: 263) points out, such children scored higher on intelligence tests than comparable children whose imagery was allowed to meet the usual fate of atrophy and inhibition imposed by education processes too oriented to the verbal. The research of Allen, Wallace and Loschiavo (1994) and Campos and Gonzalez (1995) suggests that those who have poor imaging ability may process words analytically less effectively than good imagers, and that creativity is significantly influenced by one's imaging ability.

It has often been stated that imagination alone is not enough for creativity. As others have said and as this student[20] expressed it "creativity means having fresh and unusual ideas and being able to make them real, if it all remains a dream I wouldn't consider that as a creative act"

But imagination is certainly an important step on the way, as another student expressed it " I have so many dreams, I am a person that dreams with the imagination, I am always in another world, making up 'illusions', I am not very creative, however, in part I think that I could be".

[20] Fifth year Spanish student at the University of Jaén on an English Philology degree courser following a preservice teacher training course, 1998.

We have observed how so much of the literature aimed at developing creativity in education focuses on young learners, especially children of primary school age. This is vital even though unfortunately it seems the message has not filtered through to all those involved in teaching young children. We need to keep the spotlight on encouraging and developing creativity in young children, but we need also need to adopt a conscious policy of including work on developing the imagination, curiosity and creativity in learners at secondary school level and beyond. By the time many students reach university level creativity, innovation and flexibility have been programmed out of their thinking, leaving only those who have managed to preserve this quality throughout their years of education with their creative spirit intact.

While we hope to encourage creativity in our students we need to remember that creativity works on and manifests itself on many different levels. While we are not expecting to produce creative geniuses in our classes, we are looking to develop and release the creativity which is innate in every one of us, that creativity which is recognised to be present in children but which all to often goes unexploited and which, as children move up through education systems receives less and less attention, until creative thinking and idiosyncratic responses are positively discouraged, at the price of conformity and producing the 'correct' answer.

It is clear that children think in images and know things with and through their senses. Kosslyn (1983) amongst others points out that research indicates how children rely strongly on imagery, a fact which should be taken into consideration in primary teaching. To witness at first hand the creativity of young children, who are able to combine acute observation together with imagination and fantasy in imaginary games, pictures and stories, makes one wonder what happens then to those students who, some years older, seem to believe themselves when they claim that they have no imagination.

The ability to learn through teaching situations where children can draw on all their senses is all too easily lost if not reinforced by a suitable teaching methodology which takes these factors into consideration. We would suggest that not only is the fostering of the type of learning and teaching which draws on the senses and fosters creativity is no less important in secondary and tertiary education.

The use of personal imagery is a vital element in many cognitive processes. The ability to use images as an aid to memory has long been known and exploited. The ability to draw on personal imagery and imagination is a vital ingredient in creativity. In the next section we will explore some ways in which aspects like creativity and imagination, so often neglected in many teaching situations might be addressed through the use of imagery and imagery generating techniques and activities.

2.6. Techniques which draw on imagination and personal imagery: guided visualisations.

> Using imagery is like an artichoke. When we peel off the tough outer petals of the artichoke, we find the softer more subtle inner petals and tasty core of the fruit. Imagery works in a similar way. The thick outer petals are like the high level tensions that exist in our everyday environment. As we shut out the distractions of our hectic daily lives, we begin to find a wealth of creativity and wisdom within ourselves (Murdock 1983: 10).

Murdock's use of the artichoke analogy expresses very clearly the idea of using imagery in our lives and in teaching and learning situations. Yet as we reflect upon this comparison we are reminded that not everyone has acquired a taste for artichokes. Maybe because of the way they were first presented to them and because of someone else's opinion being imposed unsuccessfully on them. Maybe we have to be given the chance to get to know them and savour them gradually and in our own way.

Koestler (1989) speaks of the need to regress to visual images and visual thinking, which are older phylogenetically and ontologically than other forms of ideation, if we are to be creative. It has been suggested too, that returning to earlier forms of ideation better prepare for the leap forward to new solutions and creative responses. ('reculer pour mieux sauter').

While images tend to be associated with the visual, they may also be associated with all other sensory modes[21]. After any shared experience it is interesting to note down your own memory images triggered by the experience and ask others to do the same. Many situations arise in classrooms where a minute or two could be dedicated to comparing memory images. In almost every situation where several people are involved, sensory memory images will have been recorded in different modes, some storing memories in a mainly visual mode, others in auditory, or kinaesthetic modes.

Visualisation is part of daydreaming and fantasy, and as Arnold (1999) points out in a 'left brain' world, it tends to be negatively valued and positively discouraged.

---

[21] Murdock (1987) describes a vivid and multi sensory dream in which she heard a wrenching primal groan and then felt the slow, painful growth of redwood tree breaking ground at the centre of her body, which continued upwards until its branches came through the top of her head. At the base of its roots were two stone tablets inscribed with indecipherable hieroglyphics. Shaken by the intensity of the dream it became clear to her that the dream had heralded a mission for her and that the tablets signified the untouched recesses of the human mind.

Classrooms tend to focus on external and observable activities overlooking the inner movements of the mind, both in learning and what seems to be escape from learning.

Daydreaming or travelling through our personal 'inner landscapes' is an activity most of us indulge in at some time or another. Sometimes we embark on the journey consciously, to escape temporarily from the world around us, sometimes it seems to be something that just happens and off we drift. Some of us will be able to remember situations where the same set of circumstances trigger off the day dreaming state. It is worth thinking about what situations and circumstances trigger off our daydream states. Mario Rinvolucri[22]. took as a starting point the fact that everyone daydreams and developed this into the basis for a communicative and sharing activity where participants explored their daydreams through a series of guided questions and later shared ideas in a joint feedback session.

It is of course almost always the reaction of teachers to call attention to students who are daydreaming to come back to the 'real' world where more serious matters are being dealt with. But perhaps these escapes from reality are something that could be exploited from time to time in classrooms. When structured in some way by the teacher, (or in out-of-class contexts by some other person as guided visualisations are used in areas other than teaching), these journeys through the imagination drawing on personal imagery memory and associations are known as guided visualisations or guided fantasies. For a more complete discussion of what exactly is involved in carrying out a guided visualisation in a classroom see Appendix 5 on Guided Visualisations.

The nature of guided visualisations make them useful activities for the classroom in many ways:

- They can provide insights for the learners themselves and for teachers.
- They can activate and encourage individual expression and creativity in students
- They can help to nurture the imagination of those students who claim not to have any, and in those who have had their ability to imagine and create deadened by education.
- They can be used to change the state of mind or mood of students for the better.

[22] Speaking at a conference on Humanising Teaching held in Huelva, Spain, September, 1999

- They are fun, relaxing, liberating and personally rewarding for students and teachers.
- They can put students in touch with all their senses
- They make a break from other types of classroom activities.
- They can be done with all age groups
- They can be used to build positive future outcomes as in Neuro Linguistic Programming
- They can be used as complete activities in themselves or they can be followed up in a variety of different ways, generating a lot of language work and especially directed towards creative outcomes.
- They require no special materials but music can add other dimensions to the experience.
- They make students aware of their own individuality and also of what they have in common with others, often with people they have not previously worked with or do not know. In addition they can generate curiosity.
- The use of guided imagery can be an important tool in releasing personal creativity

2.7. Relaxation and reduction of stress in learning situations.

Based on our own experience of using guided visualisations both in classrooms and in workshop type situations, we have always observed the effect on participants to be positive. Relaxed yet alert states are brought about, and after the activity people seem recharged by the journey into the imagination. On many occasions people have never experienced this type of activity before. The situation is certainly different when working with people taking part in a workshop to those who are in classes where attendance is obligatory, nevertheless we would say the experience can be worthwhile and possible in most situations[23], and we will deal with these points

[23] Curiously while the optimal conditions for this type of activity would seem to be in pleasant surroundings with plenty of individual space, we have been surprised to find that it has worked just as well in large traditional type lecture halls and in far from ideal conditions where very many people have been packed into an inadequately small and cramped space.

later. From the point of view of changing state or engendering a feeling of relaxation in learners, guided visualisations are an extremely useful and potent tool.

We collected feedback from a mixed group of 20 teachers, working in different teaching situations from primary to secondary and in private and public systems, in a workshop session at the GRETA Conference,[24] One of the areas of the questionnaire was related to their feelings or state of mind at the beginning, during, and at the end of a guided visualisation session, and inspite of whatever state people started the session all reported feeling more relaxed during the session and even more relaxed at the end of the session.

University students on pre-service teacher training courses reported similar observations after experiencing guided visualisations and other similar activities like for example, "Breathing Colours"[25] which generated unsolicited and positive responses [26] as did other students writing in their learning journals. We have used guided visualisations with students who having experienced them before, specially requested them in periods leading up to examinations recognising the lowering of tension and engendering of relaxed yet alert states that guided visualisations produce.

We have used guided visualisations in different types of teaching situations, with large classes, with groups of up twenty and with very reduced groups or even one to one teaching situations. Many writers including Gordon (1995) Houston (1982) Murdock (1987), working with very young learners through to teenagers and adults have also reported the calming and centring effects of using guided visualisations in many areas of the curriculum.

One teacher working with problematic and sometimes disruptive 12-13 year olds in the British educational system was amazed and delighted at the response of a class unaccustomed to such activities. Most notable were the calming, centring effects it produced in students who were normally difficult to control and who found concentration difficult, and the quality of work the students consequently produced. The subject was art and design and the exercise worked from a dual point of view, calming and centring students at the same time as dealing with aspects of colour which the teacher wanted to work on with the class [27].

---

[24] GRETA (Granada EnglishTeachers' Association) conference held in Granada, Spain, September 2000

[25] See Appendix 5.2.1.

[26] For example "I wish it was the custom". "I felt less tense and a little happier", "it made us think about ways of relaxing', "it made me feel very relaxed", "I was tense, tired and hungry and it made me feel relaxed", "It was very relaxing and I'd like to use it one day with my own students" (4th year students of an English Philology degree course in a Spanish University following a preservice teacher training option

[27] See Appendix 6. for an account of this teacher's experience.

2.8. Why relaxed states are important

- Relaxation exercises aid concentration
- Relaxation exercises help quieten and calm us, they help to reduce stress and tension and feelings of unease.
- If we can tune out distractions and focus on 'being', this often when we are at our most creative. Edwards (1999) gives many examples of this state when right brain mode is engaged [28].

On the contrary, when we are distracted and our attention is fragmented, however long we spend on something we may have the feeling that we have achieved nothing. Short periods of intense involvement & concentration can leave us with good, positive feelings and the feeling that our time has been well spent.

Our learning ability is optimised when we are relaxed and happy. Neural scientist Le Doux (1996) sees emotion and cognition as partners. The neural pathways between the neo cortex – the cognitive brain and the limbic system (the 'emotional' brain) are always functioning, even in those who believe their actions to be solely directed by the intellect. Damasio has shown how the emotions cannot be separated from cognition and decision making (1994). The affective side of learning, that aspect which has to do with our emotions works tandem with the cognitive side, and when both are used together the learning process is on a firmer basis.

Thus if we can help learners to feel relaxed and at ease in the learning situation we may be able to reduce and minimise the stress, tension and the consequent difficulties and facilitate the learning process. As Schumann's research (1997) into the neurobiological perspective of affect on language learners has shown, affective elements[29] play a significant role in the success of language learners. In a discussion focusing on stimulus appraisal, a process which draws on how we both consciously and unconsciously rate our view of any situation in which we find ourselves,

---

[28] This is a state which comes about when people are deeply engrossed in an activity, in "the flow", it also comes about when some parts of our minds are performing some task which can be done in a fairly automatic way, which then seems to allow the brain to free wheel and come up with ideas, and solutions to problems almost unbidden. This condition is common while driving in good conditions. We have often observed how when driving in these conditions the mind maintains a kind of stream of consciousness flow into which surface from time to time ideas and perspectives which seem valuable. e have often thought how recording one 's internal voice could be an interesting exercise and curious to later listen to. Of course the ideas which flash into our minds so fleetingly would take longer to record and the act of recording may well change the flow of thought.

[29] See Appendix 21.

Schumann shows how our pre-programmed responses and expectations can greatly influence our language learning ability and our perception our ability.

Stressful situations produce certain effects which can negatively affect our performance. We should bear in mind however that in some cases stress is seen as a positive factor for example, actors and other performers claim that without the nervous tension generated before a performance they would not give of their best during the performance itself. Most of us will be able to recall situations when we have felt particularly nervous or tense and will be able to recall how it manifests itself in us. Racing heart, sweating palms, dry mouth, the mind 'going blank' and so on. Most people would categorise these as unpleasant experiences and when they are not able to avoid the situations which produce these effects, they take certain measures to cope with them. Some get nervous in certain situations and either learn to live with it, because it is something they have to do. In the end they come to realise that they have survived and are able to face the situation again, or they give up doing the things that make them nervous or avoid the situations which generate those feelings. Measures for calming oneself down often include deep breathing, relaxation routines or positive visualisations of the situation, which help to get them through the testing experience.

In a nervous or tense state we feel uncomfortable, we are unable to concentrate. It is certainly difficult to learn when we are in this type of mental and physical state. In situations where students are over pressurised, or made to feel uncomfortable or self-conscious several things may happen. They may switch off and remove themselves mentally from the situation. They may avoid taking part and speaking in class for fear of making mistakes and being made to feel stupid. They may become aggressive. They may come to feel that learning is an unpleasant and difficult process

It may be that foreign language learning puts learners in more imminently stressful situations than almost any other subject. Where else are learners expected to expose their sometimes shaky grasp of a language to express themselves in front of others? With traditional methods like 'grammar-translation' students are not expected to reveal their thoughts, likes and dislikes and opinions in the target language, whereas communicative approaches do demand this of students. As Arnold points out (1999) this happens especially when,

> Communication involving more personal aspects of one's being, such as feelings, is asked for. If care is not taken to provide an emotionally safe atmosphere, the chance for the development of anxiety–provoking situations can increase greatly. This is particularly true if the stakes are

> high, such as in academic settings, where the evaluation of the learner can conceivably have far reaching consequences. (9)

Spanish learners' of English often put down their reluctance to speak aloud in front of others to their 'sentido de ridículo', feeling stupid or ridiculous speaking the language aloud, they are conscious of their own voices speaking something which sounds strange coming out of their own mouths and which they feel will sound even stranger to the listener, and thus they avoid the experience. The Spanish of course, are not alone, and are sometimes politely disbelieving when they are told that learners of other languages, including the English feel just the same.

Creating an emotionally safe environment for learners is a complex and subtle task, involving many elements some of which can be learnt, others may have more to do with the teacher and their attitudes and beliefs about teaching and learning. We believe that guided visualisations are just one way for teachers to work on the areas we have discussed above, and which at the same time provide opportunities for building on and encouraging students' creativity.

2.9. Finding time for visualising activities

A common reason expressed by teachers for not using these types of activities in classrooms especially in state education systems is that there is not enough time to indulge in such type of activities. We would suggest that there should always be some time set aside for activities which can make the learners experience more pleasant and learning more efficient. It is not necessary to devote large chunks of class time to these types of activities. As we have mentioned elsewhere, activities of this kind can be used in conjunction with other work, perhaps a reading or a listening exercise where it could be used as alternative lead-in activity.

They could also be used as short activities at the beginning of a lesson as an alternative to a "warmer" activity. They could be used as a short state-changer activity during a lesson, to re-energise or calm down students, or they could be used occasionally at the close of a lesson to create a pleasant and reflective atmosphere. When time and inclination allows and when teachers realise that the activities like guided visualisations can function on many different levels, some of which we have mentioned above, they can sometimes become the central activity around which a lesson is built.

They provide time for students to draw on their own personal imagery. They can lead to excellent opportunities for speaking and listening. From the point of view of

generating creative outcomes, guided visualisations provide one of the best starting points we know for creative work, for the very fact of drawing on personal imagery, on the wealth of memories and associations that everyone on of us has, and which allows for creative expression in a variety of ways. In language classrooms creative writing most readily comes to mind, with poems, stories and so on. However, even though we are focusing on language classrooms many creative outcomes can be generated through the medium of drawing. From the starting point of drawings many creative outcomes are suggested. Some may start from the imagery generated from participating in guided visualisations, others may come from other starting points[30].

It may be that establishing this type of activity as an occasional but fairly regular occurrence can lead to unexpectedly disproportionate beneficial effects. We should remember that as Fanselow (1987) has pointed out even seemingly very small changes in classroom practice can have surprisingly significant effects on a class. Murdock (1987) and Gordon (1995) have shown how guided visualisations can be easily incorporated into classes, with apparently highly beneficial results.

When learners are not used to these types of activities they can be introduced gently to them, starting first with simple relaxation exercises and gradually building up as students become less self conscious. Similarly for those who are unused to the idea of generating their own personal imagery in a guided way, we can help learners by gradually introducing them to the idea with short visualisation exercises[31]. See examples in appendix on guided visualisations.

2.9.1. Teacher resistance and perceived difficulties in using guided visualisations.

Adopting this type of activity may not seem feasible to all teachers, and to do this type of activity in a classroom without the conviction that it will work, may be doomed to failure. One has to have the personal confidence and belief in them to use them in classrooms or at least be prepared to give them a chance, without instantly writing them off as impractical and unsuitable for certain age groups and situations.

---

[30] Examples of visual representations are included in Appendix 19, and some activities which involve drawing appear in Appendix 22.

[31] For some examples of guided visualisations see Appendix 5 & 8.

From open-ended questionnaires and other feedback we have collected it is clear that while most people we have worked with and from whom we have collected feedback have claimed to enjoy guided visualisations and find them relaxing, inspiring, intriguing etc, a small majority have expressed doubts or even the strong conviction that although they themselves found the activity positive, they believe that this type of activity would not work with some of their students. Most often their doubts involve the viability of these types of activities with teenagers. Yet if the rationale behind such activities is explained and if they are introduced sensitively and little by little even, these types of activities can be highly successful, even though they may meet with initial resistance from some.

Murdock (1987) has found that while using guided visualisations successfully with adolescents is perfectly possible, there are factors which should be taken into consideration. Some of these would apply to any new or apparently innovative technique used with teenagers, while others refer particularly to guided visualisations. Teenagers need to have it explained to them why you are going to do any particular activity. In this case it would be useful to point out the fact that guided visualisations help to develop concentration and their creativity if they wish to (some may be very interested in this aspect). Guided visualisations can help teenagers to come to a better understanding of themselves and deal with the range of emotions which often bombard them. In addition they should know that they will help them to reduce stress and relax if they allow them to. In common with other relaxation techniques guided visualisations help clear the mind and calm the busy ongoing internal chatter of our minds.

Many teachers will find that initial experiences with guided visualisations will provoke different reactions in students. Some students may giggle, and feel self-conscious. Visualisations are usually easier to take part in with eyes closed, but some people may feel silly or in some way vulnerable with their eyes closed in public, so a teacher should not insist on students closing their eyes allow them to find out for themselves. Often realising that the majority of the class have got their eyes closed will lead them to do the same.

We suggest that students could be introduced to this type of activity gently and in very small initial doses, the results more than compensating for any initial resistance and perceived difficulties on the part of the students involved. Murdock suggests that four to six sessions may be needed for some classes to get used to the newness of the technique and to appreciate the benefits.

For students who really do have problems visualising, Jensen (1995: 172) suggests ways of helping them to get a picture in their minds. For example, get students to

think of the layout of their own house or bedroom using a book or a sheet of paper. Ask them to point to where the door is, where the window is, where they keep their clothes, or where there is a book or a picture in the room. Simple acts such as pointing out remind them that they do have stored pictures in their brain and that they drew on then as a blue print to answer your questions. They have to visualise to get the formation.

Another consideration to take into account when working with teenagers, (or other age groups, although we have not experienced this in our use of these activities) is that they may not want to share their experiences verbally with their peers, fellow students or the teacher. They may not be sure as to how they may perceived by their peers and thus be reluctant to express themselves publicly. This should be respected. However the experience can be made concrete in other ways. For examples students can write about their images and experiences. These could take the form of descriptions and they could lead to creative writing in the form of poems or short prose passages. Another possibility is for them to keep an Imagery Journal where they record their experiences, images and the insights revealed to them.

Examples of guided visualisations suitable for teenagers both with the aim of accepting themselves and their classmates and for improving concentration and clearing the mind for learning are given in Appendix 5. It is also worth pointing out the cross-curricular and cross cultural aspects of these types of activities. Examples of guided visualisations, which could be used in different subject areas, for example, history and geography, and which open the perceptions and set the scene for teaching and learning in these areas are also suggested in the appendix.

Impressions gathered from a show of hands in a conference session at the GRETA conference in Granada, September 2000, as to how many teachers used relaxation exercises of any kind with their students, revealed that only a very few had ever tried such techniques or even experienced them for themselves. This is a crucial factor. Unless one is personally disposed or drawn to this type of activity for some reason or has the opportunity to experience it (and the experience has been a positive one) will a teacher be likely to try it out with their students who may seem unsuitable from their general attitudes and behaviour or age.

2.9.2. Double Inductions

These activities are similar to normal guided visualisations but instead of one voice, there are two. The idea is that the mind, in spite of making conscious efforts to concentrate on both voices equally will in the end give up on the task and instead unconscious processes of selection will take over, selecting what is relevant for the

listener. These can be done with two voices in the same language, but we have found it useful to develop this type of guided visualisation using two voices, one of which uses the mother tongue of the learners and the other the target language[32]. The voices overlap and the meaning is reinforced in each of the voices, learners, (and this works well with beginning levels) come out of the activity with messages their unconscious minds have chosen as relevant for them without being precisely conscious of what language they heard it in. In addition learners always come out of this activity in relaxed and stress free states.

2.9.3. Image Streaming

Murphey (1998) following Wenger, describes a visualisation technique called image streaming which involves merely closing one's eyes and reporting one's own ongoing descriptive monologue from the ideas or images, (lack of image or idea can also form part of the process and be verbalised) which come into one's mind for twenty minutes[33], which he claims to have successfully used in classroom situations. In common with stream of consciousness writing[34] and the kind of internal dialogue we have mentioned earlier (for example when driving in trouble free conditions) it is believed that this activity can lead to important intuitive discoveries and can increase creativity and general mental ability. The element of 'out loud' description or thinking aloud has been suggested as a useful tool in facilitating learning.[35]. The principle behind the concept is that as various parts of the brain are activated at the same time, bridges, links or juxtapositions can occur between ideas and images, such that creative ideas or solutions to problems may be generated.

2.9.4. Using imagery to generate positive and creative outcomes

The use of personal imagery is an integral part of Neuro Linguistic Programming[36] which exploits the power of personal imagery in creating positive personal outcomes.

---

[32] See Appendix 7 for examples of this type of activity.

[33] We find this to be rather an excessive time in classrooms, even a couple of minutes might seem a long time for students unaccustomed to the activity, and it would be necessary to gradually accustom students to this kind of activity.

[34] A technique suggested by amongst others; Cameron 1996 and Brande 1996 as a way of encouraging ideas and creativity in personal expression

[35] See J. Landsberger, Thinking aloud: Private speech, electronic source.

[36] See Part 5 in this section on Neuro Linguistic Programming an its relevance for creativity.

As part of this, the idea of sharpening sensory awareness is important. Revell and Norman (1997:24) suggest follow up questions to guided visualisations which encourage those taking part in these types of activities to go beyond their initial responses and examine them in more detail. For examples of this type of follow up questioning see appendix. This type of exploration is useful because the deeper analysis of our reactions can make us aware of just how subtle and complex our responses can be and also of the very different responses of others.

From our own experience we have observed that students after activities which involve, for example, giving responses to a picture, a piece of music or an activity and comparing their responses with others, often say " we thought the same". In fact although they may have thought something similar, a closer examination will reveal many differences. Students may of course be taking the easy way out in claiming this, for it makes their answer to feedback activities far less taxing and demands less public speaking time. Claiming that "we thought the same" avoids the challenge of trying to express in their own words something they have learnt. In addition it tends to oversimplify their own aware of their own responses fails to exploit the ability to create images.

Perhaps students who claim they have no imagination come into the same category as those who claim that they can't learn English. Our power to construct and consolidate negative beliefs in our minds is impressive and often hard to break out of. Wilson (1983) expresses this as "What the thinker thinks, the Prover Proves". His observation is that the 'Prover' of our minds will obligingly organise all our perceptions to fit a thought, if the 'Thinker' changes its mind and decides otherwise, the 'Prover' will organise the evidence accordingly[37]. In addition as Wilson observes, 'As we all know it is easy enough to see that other people's minds operate in this way, it is harder to become aware that one's own mind is working in this way too" (26). Showing students that they do in fact have the ability to recourse to personal imagery through guided visualisations may be one may of overcoming these negative and limiting beliefs.

[37] Wilson (1983) gives his view of how out beliefs are set down and reinforced thus.£"Before the first imprint on the brain of the infant, consciousness is formless and void, like the universe at the beginning of Genesis. As soon as the first imprint is made, structure emerges out of the creative void. The growing mind alas, becomes trapped within this structure. It identifies with the structure; in a sense it becomes that structure. …a process that we have all passed through in creating, out of an infinite ocean of signals , those particular constructs we call "myself " and "my world". Each successive imprint complicates the software which programs our experience and which we experience as "reality". Conditioning and learning build further networks onto this bedrock of imprinted software. The total structure of this brain circuitry makes up our map of the world. It is what out Thinker thinks and our Prover mechanically fits all incoming signals to the limitations of this map" (26).

Koestler (1989) conjures up a metaphor for thinking which closely parallels what may happen when we experience a visualisation exercise or a day dreaming state of mind,

> Thinking is never a sharp, neat, linear process; it could rather be compared to the progress of a boat on a lake. When you daydream you drift before the wind: when you listen or read you travel like a barge towed by a tug. But in each case the progress of the boat causes ripples on the lake, spreading in all directions –memories, associations; some of these move quicker than the boat itself and create anticipations, others penetrate into the deep. The boat symbolises focal awareness, the ripples on the surface are the fringes of consciousness, and you can furnish the deeps according to taste. (159)

2.10. Implications for creative language teaching

By including activities which draw on mental imagery in our teaching we can make students aware of their own imaging processes and help them to sharpen their perceptions and their use of imagery. By accepting and enhancing the ability to draw on mental imagery we may be facilitating learning processes, if we consider the role of imagery in storing and retrieving information. As creative processes are known to draw heavily on the use of imagery and imagination the implications for creative teaching and learning are important. We need to make opportunities for tapping into personal imagery and imagination and to exploit them through individual expression and creativity. The implications of using these types of activities and harnessing learners' 'inner space', imagination and personal imagery have not as yet been fully explored or exploited in educational processes. Within language teaching in particular with such strong links between language, personal experience and imagery, it is an area we should not ignore if we are concerned with creative teaching and learning.

3. MINDMAPPING AND RELATED CONCEPTS

Mindmapping is a technique that lends itself particularly well to the generation and organisation of ideas and thus forms a vital part of creativity and creative processes. It has useful applications in many areas of life. When we delve into our minds and memories for inspiration using mindmaps to generate and record our ideas can be

much more fruitful than lists or a linear jotting down of ideas. Mindmaps can be used for diverse forms of idea gathering from those more obviously associated with creative outcomes, for example as a preparation or lead in to poetry writing or to more regular, everyday tasks like planning a journey, or a party. In between, are many other areas in which mindmapping can provide a valuable tool both in idea generation and in their organisation and presentation. In teaching and learning situations they have many applications which may include lesson planning, planning of talks and workshops, note taking, revision, reactivation and review of material, to mention just a few.

The concept of mindmapping is often attributed to Tony Buzan (1996) who describes its conception for him,

> The first major step occurred when I was fourteen. I was given numerous tests on intelligence, reading speed and memory and was told that I would never be able to change the results. As well as infuriating me, this was difficult for me to understand. After all physical exercise makes you stronger, so why should the right kind of mental exercise not improve your mental performance too? I immediately began to work on this problem and quickly realised that if I had the right technique, then my results would surely improve. It was at this stage that I also realised that the least productive method of trying to understand a subject was to take the kind of notes my teachers and lecturers standardly expected. I found them boring and worthless and the more I took, the less I seemed to understand. (106-107)

He goes on to describe (106) how while at University he consciously set about improving his memory and note-taking techniques which led him on two lines of pursuit,

1. He studied the nature of memory, and especially that which is recalled. This inevitably included imagery and association.

2. He studied the note-taking methods of the great brains and observed that without exception, they all used images, pictures, arrows, and connective devices, while those who did less well in academic studies made only linear notes.

It is unclear to what extent the latter rather sweeping statement is true of all academics, however it does seem that many creative people do tend to use forms of generating and testing out ideas which derive from forms of putting down their ideas which tend towards visual rather than written linear forms.

Buzan went on to develop his mindmapping concept and published his book *Use Your Head* which was matched with the BBC television series of the same name. He set about enlightening the worlds of business, academic and government institutions and the 1990s saw the establishment of Buzan Centres and the training of Radiant Thinking Instructors in the educational methods which draw on left and right brain functions and the use of mindmapping techniques.

Recent years have seen a flood of publications by different authors on the theme of mindmapping. As one would expect in a computer age there is now a wide choice of other materials available, which include computer software for the generation of mindmaps and related techniques for use in different fields, including education and business[38]. As the concept has become more widely diffused and taken on board by more and more people other labels have evolved, some of which are, *webbing, idea mapping* and *concept mapping.*

At a time when more attention, (although far from enough) is being paid to areas like Gardner's Theory of Multiple Intelligences, holistic learning and awareness of learner differences, the implications of mindmapping and similar techniques for education are clear. A mindmap is a powerful graphic technique which helps to tap the potential of the human brain. It does this by drawing on and exploiting the full range of cortical skills, which include word, image, number, logic, rhythm, colour and spatial awareness. Mindmapping can be applied to every aspect of life where improved learning and clearer thinking are required. As such it is an important and interesting area for inclusion into teaching and education in general both from teachers' and learners' points of view and especially so when creativity is a desired consideration.

Buzan has suggested that in a similar way to a road map, a mind map will do the following things:

- Give an overview of a large subject area
- Enable one to plan routes and make choices
- Let you know where you are going, and where you have been
- Gather and hold large amounts of information
- Encourage both daydreaming and problem- solving by looking for

[38] Some references to different mindmapping programmes are included at the end of this subsection

- creative pathways
- Be extremely efficient
- Be enjoyable to look at, read, muse over and remember.

The main objectives of mind maps are summarised as follows:

- They explore all the creative possibilities of a given subject
- They clear the mind of previous assumptions about the subject, thus providing space for creative thought
- They generate ideas that result in specific action being taken, or physical reality being created or changed
- They encourage more consistent creative thinking
- They create new conceptual frameworks within which previous ideas can be organised.
- They can capture and develop 'flashes' of insight when they occur.
- They allow one to plan creatively, for example with Mind Map diaries, with yearly plan, monthly plan, daily plan maps, lesson plans, talks and presentations, etc.

Different writers suggest various ways of mindmapping. The basic considerations are generally similar with individual recommendations, and it should be pointed that the while the general principles are important, it is the individual and highly personal representations which make mindmapping a generative and creative resource. Buzan has suggested that for optimum functioning of the technique the following 'laws' should be followed:

1. Start to draw in the centre of a blank, unlined page of paper, with an image of the desired topic, using at least three colours
2. Use images, symbols, codes and dimension throughout the mind map
3. Select key words and print, using capitals or lower case letters.
4. Each word or image must be alone and on its own line
5. The lines must be connected starting from the central image. In the

centre the lines are thicker, organic and flowing, becoming thinner as they radiate outwards.

6. Make the lines the same length as the word or image.
7. Use colours, your own personal code, throughout the mindmap
8. Develop your own personal style of mindmapping
9. Use emphasis and show associations between different related topics in your mind map.
10. Keep the mind map clear by using numerical order or outlines to surround your branches.

We would add to this list the element of synesthesia which can play an important part in mindmapping processes. Although a mindmap is a visual representation of the generation of ideas, these 'ideas' are based on and derived from our stored memories, and these memories have inevitably been experienced through all the senses, which include sight, sound, and kinaesthetic experiences. Thus in addition to providing a visual means of gathering our ideas together, mindmapping also draws on and blends all those senses. In another section we explore the possible implications of synesthesia for teaching and learning.

3.1. Practical considerations in making mind maps

The following list represents a collection of practical points which are suggested in the making of mind maps.

- Place a large sheet of white paper horizontally or use a mind map pad.
- Gather a selection of coloured pens, ranging from thin nib to highlighter.
- Select the topic, problem or subject to be mindmapped. This will be

  the basis of the central image.
- Gather any materials, research or additional information that is needed
- Start with an image approximately 3cm high and wide for A4 paper and 10cm for A3.

- Use dimension, expression and at least three colours in the central image in order to attract attention and aid memory.
- Make the branches closest to the centre thick, attached to the image and 'wavy' or organic. Place the Basic Ordering Ideas (BOIs) or chapter headings on those branches,
- Branch thinner lines off the end of the appropriate BOI to hold supporting data.
- Use images whenever possible.
- The image or word should always sit on a line of the same length.
- Use colours as your own special code to show people, topics, themes dates and to make the mind map more attractive
- Capture all your ideas, or those that others have contributed, then edit.

3.2. The visual element

One feature of mindmaps which immediately stand out, even when descriptions are presented in written form, is the emphasis on visual elements. Research has shown that visual learning is one of the best methods for teaching thinking skills, work on preferential sensory modes and the different intelligences clearly points to the fact that many people respond more to visual stimuli and as a consequence find that using visual forms of representation can be more compatible and productive than traditional, linear, written formats.

In our own experience we have noted that students find diagrams and visual modes of presenting material useful as a way of clarifying or simplifying concepts and making new material more memorable. Such diagrams, used in academic contexts however, should not be confused with mindmaps, which we see as a personal response to a particular situation. When diagrams and schemes are teacher devised they serve a very useful function, but one which reflects the teacher's or some other person's clarification and representation of a concept. However while other peoples' diagrammatic encapsulations can help to fix information in our minds, some of us may be able to recall occasions when the diagram offered to clarify a concept in fact had not a positive but a negative effect, hindering rather facilitating understanding and memorability

A fundamentally important element of mindmaps is that they should be personal. That is they should reflect the thinking of the individual who designs them. We have found that when students are given the opportunity of devising their own visual representations of material (and not necessarily mindmaps) that has been presented in class, or for their own classroom presentations, they will come up with highly individual representations. These have certainly helped the student or students concerned and those viewing it to remember and be able to discuss the ideas presented better because of the visual context in which they were presented.

Visual learning techniques which include graphic ways of working with ideas and presenting information can teach students to think clearly, and to process, organise and prioritise new information. Visual diagrams reveal patterns, interrelationships and interdependencies. They also stimulate creative thinking. Many definitions of creativity centre around the element of making connections that the individual has not perceived before. The visual expression of ideas given form through using mindmapping facilitates this process and can often reveal links which we have not been conscious of.

In essence, mindmapping is a type of free association exercise which is channelled in such a way that it organises thoughts and ideas which come into our heads triggered by the key topic or theme. Although we do not always appreciate the way in which our brains seem to come up with ideas unbidden, this technique exploits this natural ability of the human brain. A relaxed and open attitude is required which while keeping the key topic in mind allows the natural surfacing of seemingly unconnected ideas to surface, and the form of bringing those ideas into the consciousness that mindmapping allows, does not thwart, but encourages the natural functioning of the brain to generate ideas. People who train themselves or who are trained by education systems to think in linear, logical and chronological ways may have learnt to subdue or even ignore the power of their minds to browse through the vast quantities of data that everyone has stored in their memories and to come up with those unexpected insights or inspirations which can be so rewarding.

In a similar way to brainstorming techniques, when mindmapping, we should not make initial value judgements, even when ideas come into the mind which do not seem directly related, it is important to put the idea down. Ignoring an idea or brushing it aside as unimportant may cause a block to the flow of ideas. When we allow ourselves to put the idea down, two main things happen, the first being that the mind is freed to go onto other ideas, and the second is that associations are made with this idea. The associations that this may generate may turn out to be the most fruitful. In keeping with creativity generating techniques offered by other

writers, Wycoff (1991) suggests that going down seemingly unexpected or unrelated paths may result in different outcomes. Firstly these side paths usually only last a few seconds, then either the path will end or it will lead you back to your original focus, or one will find that the path really did relate but that we were unable to see the relationship at the beginning of the path. It is important to bear in mind that mindmapping is not an end result but that it is part of a process.

Once we start to use mindmapping techniques if we are open minded and allow our intuition to work we may find ourselves evolving ways which lead us personally to more fruitful outcomes. Wycoff (50) makes some useful suggestions in this direction.

- Paper: Working on really large paper can be liberating and have benefits. Using the paper horizontally when most people automatically take and use the paper in the manner in which it is most frequently presented to us, that is, vertically, can also be useful. Working on coloured paper can open new doors.

- Whiteboards: Mindmaps and whiteboards go together well. Use coloured markers of different and sizes

- Colour and images: Experimenting with different colours is useful and it is important to break the black on white connection. Letting the mind play with colours and images will possibly generate more than words written in black on white paper and allow more association of thoughts and ideas.

- Flow: it is important to keep the hands moving. If your thoughts stop, draw circles or lines until new associations start showing up.

- Other aspects: if you always work sitting down try standing up pin paper to the wall or use a white board. Write left-handed if you are right-handed or vice versa. As music can be a powerful trigger of ideas and associations try working to different types of music. Breaking out of our normal pattern of working can help us to make new mental connections.

3.3. Concept Mapping

Closely related to mindmaps and flowcharts are concept maps. Concept maps move beyond mapping and brainstorming a particular concept or idea, and show relationships between concepts, including bi-directional relationships. Usually a concept map is divided into nodes and links. The nodes (often circles) represent

various concepts and links (lines) represent the relationships between the concepts (Lanzing 1997). By contrast to the mindmapping procedures outlined above, in concept maps, words are used to label the links between concepts to make the relationships more explicit. A concept map once completed is a visual graphic which represents how the thinker / creator thinks about a subject or topic and is a two-dimensional representations of cognitive structures showing the hierarchies and the interconnections of concepts involved in a discipline or a subdiscipline (Martin 1994).

3.4. Constructivism

All these ways of organising and representing ideas and concepts, including different approaches to mindmapping and concept mapping reflect the idea that each person already has their own knowledge, and that knowledge does not exist 'out there' in the objective world. Seen from a constructivist point of view, 'knowledge is actively constructed from within the learner' (Hendry & King 1994). Constructivism derives from the field of cognitive psychology and is based on the work of educators and researchers like Jean Piaget, Lev Vygotsky, Jerome Bruner and Howard Gardner and is based on the belief that facts become facts because it is knowledge that is agreed upon by communities of learners. The learner comes into any new situation with a priori knowledge based on past experiences. New knowledge is learned through integration with prior knowledge.

3.5. Principles of constructivism demonstrated through concept mapping

Drawing on the work of various writers in the field, Walker[39] points to some important educational principles that have their base in constructivism:

- Concept development and deep understanding are the goals of instruction, not behaviours or skills.
- Learning is a constructive activity that students have to carry out. Students are active learners. The educator's task is to provide students with opportunities to construct knowledge

[39] Electronic Source.

- The teacher must provide meaningful, authentic activities to help students construct understanding relevant to solving problems
- Reflection of both content and the learning process is paramount.
- Collaborative groups should be used so that students can test their understandings and expand understanding of particular issues
- Teachers need to «establish explicit linkages for students between new information taught in class and students' past and future experiences.... Teachers summarise, review, and link main concepts at critical points throughout and at the conclusion of units and lessons»
- «Conceptual understanding is influenced by the prior knowledge brought by students to learning situations. Such prior knowledge are 'preconceptions', 'naive theories', 'alternative frameworks', or 'misconceptions'»
- Teachers must challenge the learner's thinking, and preconceptions with alternative frameworks.

  As such, concept-mapping fits well with the constructivist approach that learners construct their own idiosyncratic understanding of concepts, as any teacher will be aware. The teacher can use a map as a basis for which to challenge student assumptions of how concepts are related.

While it is usually recognised that university students will not remember all the specific facts from their courses, Constructivism underlines the importance in students taking away with them an awareness of general themes and topics and an understanding of how these are related and interconnected. Sources of specific information can always be accessed again, and in any case in many areas of education the 'facts' are being continually replaced, revised or updated.

The advantages of using concept maps for curriculum design have been pointed out (Edmonson 1993) and drawing on the work of various writers the advantages of using concept maps in the construction of lesson plans for teacher training courses are listed below:

- Constructing a concept map allows one to see areas that appear trivial and that may be dropped from the course
- Themes that deserve special emphasis are highlighted

- It allows one to see how students may see or organise knowledge differently from each other and the teacher, which can help to better understand and relate to students and to challenge their ways of thinking
- The mapping process can help the teacher identify concepts that are bound to more than one discipline, which helps one move beyond traditional disciplinary boundaries.
- Concept maps can help the teacher select appropriate teaching materials and methods. Teaching strategies can be incorporated into concept maps as well as time and task allocations for different parts of the course
- The conceptual relationships and objectives of the course can be visually explained
- Rather than being a traditional course plan that assumes students will integrate learning concept maps depict the intentions of planners pointing to the integration they expect to occur.
- Concept maps can be used as a point of general discussion among students and for summarising general course concepts.
- Concept maps are in line with a holistic view of learning
- Mapping the key concepts of a course can point to areas where concepts can be integrated.
- Concept maps can help teachers develop courses that are well integrated, logically sequenced and have continuity.
- Concept maps can increase the potential of seeing multiple ways of constructing meaning for students.
- Concept maps can help teachers plan units of study that are meaningful, relevant, pedagogically sound and interesting to students.

Some steps in the making of a concept map are suggested[40] (Walker 1997).

1. Write down the major terms or concepts about a topic
2. Identify the most general, immediate, and specific concepts

[40] G .H. Walker teaching Resource Center, electronic source

3. Begin drawing the concept map:
    - concepts circled
    - most general concepts placed at the top
    - intermediate concepts are placed beneath general concepts
    - specific concepts are put at the bottom
4. Lines are drawn between related concepts
5. The lines are labelled with linking words to indicate how the concepts are related.
6. The map is revised as necessary.

3.6. Personal and commercial designs for mindmapping

While commercially produced mindmapping and concept mapping programmes, (see footnote) can be useful, they do require equipment like computers which not all educational establishments have readily available. However it may be that the types of mindmaps which are designed on paper or on whiteboards are more immediate and allow for more individual expression. We believe that teaching students mindmapping techniques could provide them with a very useful learning tool. "Inspiration"[41], one company which produces mindmapping software for use in educational situations claims that their materials can do the following:

- Clarify thinking:

  Students understand how ideas are connected. They see where they have a great deal of passion or information about a topic, making new concepts more thoroughly and easily understood. Students also begin to realise how ideas may be grouped or organised.

- Reinforce understanding:

  Students recreate, in their own words, what they have learned. This helps them absorb and internalise new information, and gives them ownership of their ideas.

[41] Inspiration Electronic Source

- Integrate new knowledge:

  Diagrams updated throughout a class prompt students to integrate prior knowledge with new ideas. By reviewing diagrams they've created previously, students see how information fits together.

- Identify misconceptions:

  Just as a concept map or web will show what students know, misdirected links or wrong connections reveal what they don't understand.

All these seem highly desirable considerations but they could just as well apply to individually produced mindmaps which have been produced independently of computer software companies materials. One of the main advantages claimed for some of the more recent software is that they make designing mindmaps easier. The possibilities for cutting and pasting facilitate the rearrangement and reorganisation of material, which in turn can optimise the potential for generating new ideas. In addition computers facilitate the editing, storage, retrieval and organisation of data, whilst the creation of many different variations of the same mindmap is facilitated and accelerated.

While commercially produced mindmapping programmes may seem very attractive and suit those who have the necessary technology and who enjoy working in this way, there are, we believe, still advantages to be obtained from a more direct and hands on approach to producing one's own mindmaps. For example, computer mindmapping cannot compete with the infinite visual variety and the minimum requirements of personally created mindmapping techniques. Following the mindmapping guidelines of writers like Buzan (1991) and Wycoff (1991) could prove just as useful in developing an awareness of the uses and advantages of mindmaps

3.7. Implications of mind and concept mapping techniques for creative teaching and learning.

Mindmapping and related techniques are a useful addition to the resources teachers can draw on for more creative teaching and learning. For learners who enjoy expressing themselves visually, mindmaps can be a valuable part of their personal repertoire of techniques of generating and representing their ideas. However we should bear in mind that there will be many (both teachers and learners) who have never been exposed to such ways of working or at least never considered it to be acceptable or beneficial in classroom environments. Thus teachers need to see how

using mindmaps can be a valuable resource in classrooms and learners should be given the chance to work with such techniques. The possible areas of application are many. We give here a few examples suitable for language classes, where they might be used:

- In the generation, organisation and presentation of ideas and material for project work
- In the generation of ideas and their organisation for creative writing; essays, stories and poems.
- As an alternative form of note taking
- As a useful tool for revision and recapitulation of previously met material both for learners and teachers.
- As a means of reflecting about oneself as a learner, and identifying learning strategies and preferences, in order to identify areas of strength and to balance neglected areas.

It is useful to expose learners to different examples of mindmaps produced by different people[42] and which in turn reflect different ways of visually representing ideas. While there are basic considerations which should be applied to mindmapping, like any other piece of highly individual work, its charm and its power lies in its individuality. Within certain governing frameworks we suggest that students should be allowed to develop their own styles.

As Wycoff points out mindmaps are not necessarily an end product, rather they form an important way stage on working towards an outcome. They can be modified, refined, reformed, and neatened up. They can be kept for personal perusal or used for presentations. In addition it could be said that every item in a mindmap is, in effect, a centre of another map. Using this type of technique does not use up one's ideas, on the contrary, once familiar with the process one comes to see how more new pathways are opened up.

Although we are advocating the use of mindmaps in classrooms, it should be borne in mind that just like any other idea or activity we present in the classroom, not everyone will take to the technique as readily as others. Similarly like any other technique or activity which may be new to students we may need to introduce the idea to them gradually.

[42] Some examples of mindmaps are presented in Appendix 18.

When we showed different examples of mindmapping to different students the responses were mixed. Some people's responses to the mindmaps which Buzan uses as examples in his book *The Age Heresy* provoked comments to the effect that they were too complicated and 'busy'. An initial exposure to a mindmap on the theme of classroom management by Woodward (1988) elicited surprise and delight from the different groups of students to whom it was presented. In an activity carried out with students[43], a choice was given to them to present their work in written or visual form. Some chose, probably for a variety of reasons, to stay with the tried and tested linear written forms of presenting material with which they were accustomed while others experimented with visual forms. Strict mindmap format was not insisted on, some taking their presentations far beyond diagrammatic representation and producing complex coloured illustrations. Others used a more diagrammatic format. Our main observation was in the variety and the originality of the visual representations[44] that the students produced. The students themselves seemed impressed by their fellow students' efforts and accomplishments. Some claimed that they had not done any work which involved the use of drawings and colour for years and that they had forgotten how much they used to enjoy it. Perhaps this might serve as a salutary reminder to these future teachers that some of their future students may also achieve interesting results if allowed the opportunity from time to time to incorporate drawing and visually represented work into their studies.

While we have discussed the use of mindmaps as an aid to learning, mindmapping has wide applications in many other areas. For example in areas such as business and preparing presentations and talks in a whole spectrum of fields of work. Another application relevant to this study and within the field of education lies in lesson planning. The aspect of lesson preparation is one which can be dealt with in a variety of different ways and in different systems receives different degrees of importance. In RSA[45] teacher training courses, for example, much importance is put on the thorough pre-planning and commitment to paper of those plans as an integral part of the assessment and evaluation of trainee teachers. Some education systems demand the production of lesson plans from their teachers. We have mentioned in other sections[46] of this study how for creativity to be present in teaching

[43] 4th year Spanish students on an English Philology degree course at the University of Jaén, taking the subject 'Classroom Management', a component of an EFL teaching methodology course 1999-2000.

[44] Some examples of the visual representations produced by these students is included in Appendix 19.

[45] Royal Society of Arts

[46] See section IV, Creativity in teaching.

and learning, a degree of flexibility must go hand in hand with the constraints imposed upon teachers by factors such as the syllabus, the time available and so on. Some approaches to lesson planning, for example Thornbury (1999) and Woodward (1995) could be ideally expressed in mind map formats and lead to the generation of other fruitful possibilities. Lesson planning is an area which raises important issues connected with the concept of creative teaching and mindmapping lends itself perfectly to the area of lesson planning. Some teachers might find it a more enjoyable, fruitful and creative way of planning lessons, as in this way creative elements might come into being from adopting a visual approach to planning which may not emerge from the more usual linear approach.

3.8. Summary

The advantages of mindmapping techniques lie in two main areas. Firstly, mind mapping is a process which echoes the working of the brain. Rather than imposing form on our ideas at the outset which can restrict and block fluid thinking, it allows the brain to generate ideas in a natural way drawing on its rich associative and interconnected character. Secondly it is a visual way of generating and presenting ideas and many people find it more compatible with their way of thinking, generating and organising their ideas. The format of mindmaps and concept maps underline the interconnectedness of things rather than the unnatural division of things into neat and exclusive categories. Seeing the interconnections between things and being responsive to the possibilities of unexpected juxtapositions is an integral element for creative processes.

In addition mind mapping as a means of generating ideas acknowledges the fact that everyone has their own rich collection of ideas, experience and knowledge to draw on and that this provides the foundation on which new information is laid down and new associations and personal and idiosyncratic links and interconnections are established. As such it reflects a constructivist view of education.

While not everyone will find these ways of working to their liking there may be others who find that it does in fact suit them very well, although they may have been trained by education systems to force their ideas into the commonly demanded linear and sequential formats which positively discourage creative thinking. In areas where we wish to encourage creative outcomes in learners, for example creative writing, mindmapping techniques provide highly personal and fruitful starting points. Where the necessary technology is available some teachers may find commercially

produced programmes useful and relevant to their classes, but in our view personal creativity is more likely to be encouraged through the production of one's own original mindmaps.

4. MULTIPLE INTELLIGENCES

Gardner's theory of multiple intelligences has broadened our understanding of the concept of intelligence. From viewing intelligence as a fixed quotient that one is born with, and in which some have been more blessed than others no longer holds true if we view intelligence as Gardner suggest, as a human capability or ability which like any other skill can be developed. While what we are born with is influenced by our genetic make up, rather than being immutable our abilities can be developed. Just how we develop them will be influenced by the environment, our own experiences and the kind of education we have had.

Gardner's view of intelligence does not focus solely on the type of brilliance associated with academic excellence. It recognises that not all intelligence is manifest in this way. Sometimes those with a great intellectual intelligence are not so expert at forging good relationships with people. Then there are those who are highly successful in business but who may not have excelled at school or college, yet their development in other areas, for example, relating well to other people has brought them success.

Just these two examples show how people may excel, but in very different ways. Gardner and his colleagues at the University of Harvard have identified eight different types of intelligence. The concept of intelligence as a potential rather than a predetermined entity is reflected in this definition of intelligence seen as,

> A biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture (1999: 34).

4.1. The "eight intelligences"

- ***Linguistic Intelligence***

This involves a high degree of sensitivity to spoken and written language. It includes the ability to learn languages and the capacity to use language to achieve certain goals. A person with linguistic intelligence enjoys wordplay, reads voraciously and

possesses a wide vocabulary. People with high linguistic intelligence can convey complex information with ease and make competent debaters, teachers, lawyers, writers, and poets. Linguistic intelligence draws on and uses both the left and right brain hemispheres for its thinking and processing.

- ***Logical Mathematical intelligence***

This involves the capacity to analyse problems logically, carry out mathematical operations, and perform scientific investigations and is generally associated with left brain mode thinking and processing. People with this intelligence would put mathematics and science high on their list of favourite subjects at school, they are usually systematic in their behaviour and able to locate specific examples to substantiate a general point of view. They enjoy the challenge of "brain teasers", they are good at details and analysis, and tend to follow a step-by-step approach to problem solving. Their strength lies in discerning patterns and relationships between objects and numbers. This type of intelligence has always been valued above others and even seen as the encapsulation of intelligence.

- ***Musical Intelligence***

This is represented by skill in the performance, composition and appreciation of musical patterns. People in whom musical intelligence dominates will have a good sense of rhythm are generally able to sing on key, play a musical instrument and identify the sounds of diverse musical instruments. Their musical memory tends to be good and they are able to recall a tune after hearing it just a few times. Life for the musically intelligent is meaningless without music, which evokes emotions and images to comprise a personally meaningful tapestry. This faculty is obvious in people involved in the arts, although it can be useful in many different areas of life.

- ***Bodily Kinaesthetic Intelligence***

This area entails the potential of using one's whole body, or parts of the body, for example the hand or the mouth, to solve problems or fashion products. They enjoy physical sensations are adept at practical activities and exhibit a need to touch and handle something where such manipulation leads to greater understanding of the subject. This intelligence is also manifest in the practice of crafts, sculpture and the use of hand gestures to express themselves. People who demonstrate this facility best are those who engage competitively in sports, dancing, and areas where physical mobility is necessary and is a characteristic of surgeons and technically oriented professionals.

- ***Visual - Spatial Intelligence***

People with this intelligence are able to perceive the world in three or more dimensions. Intricate inter-relationships, networks and systems, the dispositions of items in space, are recognised by individuals who have this intelligence. They are good at reading maps, charts, plans and drawings and often have a good sense of direction manipulate patterns of wide space and some may become navigators or pilots.

Their note taking and note making usually includes colour and imagery, and books with illustrations are preferred. They may be inveterate doodlers and have good perceptual and visualisation skills in drawing. They may use their visual spatial intelligence as sculptors, surgeons, chess players, graphic artists or architects.

- ***Interpersonal Intelligence***

This type of intelligence is demonstrated in a person's capacity to understand the intentions, motivations, and desires of other people and as a consequence, it allows them to work effectively with and relate well to others. They are good communicators and often excel at sales, marketing, politics, teaching, training, facilitating and mediating. They enjoy being in the company of others either in connection with work or socially and may prefer team rather than individual sports. They show no hesitation in taking the lead, but also prefer to discuss problems with others instead of dealing with things on their own. In this category would come salespeople, teachers, clinicians, religious and political leaders, actors. To be successful in their chosen spheres all need a highly developed interpersonal intelligence.

- ***Intrapersonal intelligence***

This intelligence is represented by the capacity to understand oneself, to have an effective working model of one's own fears, desires, and capacities, and to use such information effectively to regulate one's life. They are usually quiet and introspective and are often happy in their own company. People with predominance in this intelligence are often independent thinkers and who possess a realistic notion of their own strengths and weaknesses. Self-development and self-fulfilment in such people arise from an awareness of about who they are and where they are going. Their goals and visions are usually clear and attained through self directed actions, and are people who prefer doing their own thing rather than following the crowd.

- ***Naturalistic Intelligence***

This, the most recent of intelligences to be identified by Gardner (1999: 48-52) is encapsulated for Gardner in the faculties we use when we observe and study nature.

People with naturalist intelligence like or keep pets and are interested in and knowledgeable about the elements of nature. They are able to understand and maintain interest in global environmental issues. They possess a good knowledge of the functions of the human body and usually live healthy lives in accordance with this knowledge. Interest in the origins of the universe, the evolution of life, social issues leading to the development of humanity and the preservation of life on our planet figure is prominent in our consciousness through this intelligence. It is especially evident in biologists and herbalists, but also, Gardner suggests in areas not so obviously related to matters related to nature, as for example in the recognition of underlying patterns and trends.

4.2. Observations

Firstly, it should be quite clear to anyone reading through these intelligences and trying to decide which category they fit into that most of us possess all the intelligences to a certain degree. We may feel we predominate in one area or another, but then see ourselves reflected to a some extent in other areas. Working with the multiple intelligence theory with a small group of Spanish students of English Philology on pre service teacher training courses we asked them to say which intelligences they felt they were strongest in by responding to the stem sentence "I think I am a person with predominantly ……. intelligence" and choosing those which best applied to them. Interestingly for a group of philologists very few[47] placed "linguistic intelligence" first in their perceived personal order of intelligences.

Almost without fail when the multiple intelligences are presented in books and other publications, linguistic and mathematical / logical intelligences, those associated with academic excellence appear first, Gardner emphasises the importance of all the intelligences, claiming that different people have and in fact require the different

[47] Out of a group of 21 students (Spanish undergraduate students of English Philology, University of Jaén, 2001) only one placed themselves exclusively in the linguistic intelligence category. One other put linguistic intelligence at the top of their list and five others included it in a position of lower importance. Only one student attributed themself with logical – mathematical intelligence. Three put themselves down as exclusively intrapersonal and two as exclusively interpersonal. Of those who saw themselves as fitting within several categories, the most common other categories were musical, followed by visual spatial and bodily kinaesthetic. It should be emphasised that this was an informal activity and that rather than basing their assessment on subjective opinions about themselves other ways of testing might be devised which may have given more objective results. Nevertheless, even at this level it is revealing to see how students intuitively categorised themselves, providing a salutary reminder to teachers and future teachers, to be borne in mind when planning lessons and when evaluating students. From the point of view of creativity in teaching and learning, there are many implications, two examples being, 1) the need to work to people's strengths to release their creative potential and 2) working to develop more neglected areas which because of biases in teaching focuses leaves many learners underachieving.

types of intelligence in different proportions in order to live their lives successfully in ways which are fulfilling and personally satisfying for them. However it is quite clear that the first two intelligences we have listed, logical-mathematical and linguistic, are those which are given the most importance and rated most highly in the majority of educational establishments often to the exclusion of all else.

This narrow bias towards 'intelligences' typically associated with academic excellence is reflected both in teaching methods and in the assessment and evaluation of students' work and progress. Thus students who have a good blend of these intelligences are likely to do well at school and at university. They are certainly particularly useful for people who have to take tests and examinations[48].

It is quite clear that some of the major achievements of civilisation have required the development of types of intelligence not necessarily encompassed by those which are given so much importance in educational systems. Achievements in the world of the arts for example require more highly developed abilities in the realm of musical, body-kinaesthetic and spatial intelligences. In his study of highly creative people, *Creating Minds,* Gardner (1993) claims to have identified some predominant and highly developed intelligences apparent in the life development of those whose lives he studied. While Gardner has linked their outstanding success in their respective fields to the highly advanced application of their apparently predominant intelligence, it is not implied that they do not also draw on to greater or lesser degrees on the other intelligences.

4.2.1. Examples of highly developed intelligences

With the reference to the fact that different intelligences have evolved in response to different cultural demands by drawing on the biopsychological potential innate in mankind, some interesting examples serve to illustrate this. In some cultures for example spatial intelligence evolved to a degree unimaginable to those of different cultures and different times, and which in many cases has been superseded in modern society by sophisticated technology. In the area of terrestrial[49] and ocean

[48] It has often been pointed out that as most psychologists and academics exhibit a reasonable amalgam of linguistic and logical mathematical intelligence this makes it almost inevitable that faculties like these dominate in tests of intelligence

[49] The desert people in the far south of Morocco, (and this is surely true of other desert people) find it quite a normal event to set off for a journey of several days or even weeks, armed with minimal and basic supplies, across terrain with minimal or even shifting landmarks and no navigational aids save their own spatial intelligence, to arrive at and tend a patch of fertile land near an oasis where they grow a few paltry crops and then to return once more to base.

navigation,[50] humans have been able to develop highly developed means of navigation dependent on an innate spatial intelligence without recourse to any kind of technology.

But such skills are not necessarily reserved for ancient civilisations. Recent neurological research[51] has shown that when humans develop a high degree of skill in some area of their lives, not only is this developed ability demonstrated in their behaviour it is also demonstrated in their neurology, revealing more neural links to have been forged in specific areas of the brain. In the case of taxi drivers the acquiring of 'the knowledge' as the accumulated experience and spatial mapping of London in their memories is colloquially called, resulted in more neural links being made. One may also speculate to what extent this knowledge is consolidated by the continual revising of the material learnt by driving over the territory mentally memorised which then also incorporating bodily kinaesthetic intelligence.

The same can be said for bodily kinaesthetic intelligence. People who have suffered severe physical handicaps are often able, through perseverance and determination to accomplish feats and skills, which those who have suffered no such handicaps find it hard to believe and indeed almost impossible to acquire. For example severely physically handicapped artists who paint with their mouth or foot and who have become so adept in their skills that their work shows no evidence of their disability and often even surpasses the skills of skilled and competent artists who suffer no physical disability.

---

[50] Thomas Gladwin, an anthropologist, contrasted the ways that a European and a native Trukese sailor navigated small boats between tiny islands in the vast Pacific Ocean.

> Before setting sail, the European begins with a plan that can be written in terms of directions, degrees of longitude, estimated time of arrival at separate points on the journey. Once the plan is conceived and completed, the sailor has only to carry out each step consecutively, one after another, to be assured if arriving at the planned destination; The sailor uses all tools available, such as a compass, a sextant, a map, etc, and if asked, can describe exactly how he got where he was going.
>
> By contrast, the native Trukese sailor starts his voyage by imaging the position of his destination relative to the position of the other islands. As he sails along, he constantly adjusts his direction according to his awareness of his position thus far. His decisions are improvised continually by checking relative positions of landmarks, sun, wind direction, etc. He navigates with reference to where he started, where he is going, and the space between his destination and the point where he is at the moment. If asked how he navigates so well without instruments or a written plan, he cannot possibly put it into words. This is not because the Trukese are unaccustomed to describing things in words, but rather because the process is too complex and fluid to be put into words. (Edwards 1998: 53)

[51] Neurological research discussed in The New Scientist 18 March 2000:11 into the brains of London taxi drivers using Magnetic Resonance imaging (MRI) revealed that a key navigational centre in the brain, the hippocampus, had grown in relation to other areas of the brain. It was found that 16 taxi drivers had a bigger rear hippocampus than 50 adults who did not drive taxis. The area became active when the taxi drivers described routes through the city. The research team concluded that navigating increases the size of this brain region, probably due to the formation of new neural connections and cell division. However, the front hippocampus of these taxi drivers was smaller than in controls, suggesting that it shrinks to compensate. The hippocampus is known to be involved in memory, but it is not clear whether it deals with short term or long term memory, or with specific content such as faces or words

Examples like these show that there are skills and faculties which develop in response to the demand put on them. The other side of the coin is that areas we do not use and develop fall into disuse and become difficult or even impossible to reactivate. In focusing always on particular areas we reinforce them through constant use and we neglect others.

4.2. 2. Emotional intelligence

Two of the threads of intelligence that Gardner has teased out are those of interpersonal and intrapersonal intelligence which in recent years have come into the focus of attention under the heading of emotional intelligence. Emotional intelligence encompasses those abilities that allow us to deal with and resolve issues related to our emotions (intrapersonal) and the emotions of others (interpersonal). Curiously, these areas which affect each and everyone of us in our daily lives and more specifically in areas like education have traditionally received little or no attention. It is only recently that issues like emotional intelligence and the importance of affect in learning (Arnold 1999, Goleman 1995, Schumann 1997) have begun to attract attention. Emotions have often been seen as muddying the waters of rational thought, until the work of neuropsychologist Damasio (1994) demonstrated how without the mediating influence of the emotions, humans do not in fact act so rationally at all. Goleman (1995) sees human minds as functioning on two levels, the thinking mind and the feeling mind both interrelated and needing to work in tandem in order to conduct our lives successfully and in order to relate to others.

It is all too clear that dealing with feelings and emotions are rarely issues that are dealt with in educational settings. Many have seen and continue to view this as a dangerous area in which teachers should not meddle for fear of stirring up issues which fall outside of the realm of teaching and learning and have little to do with the important issue, that of teaching the subject and the students learning or remembering enough of it to pass the required examination. Yet as Robles[52] reminds us, even though we spend a great deal of time learning or teaching the required subject content no time at all is spent in teaching or helping students to bring their exam nerves under control. And the reason may well be because we do not know how to ourselves. It is only now that a slow awakening to the importance of emotional intelligence is coming about and we are beginning to realise that relating to ourselves, the world around us and the people in it are not necessarily skills that come ready

[52] Electronic source< http://www.galeon.com.aprenderaprender

honed and suited to the environments in which we have to function. It is increasingly clear in education systems in countries all around the world at the present time that these are aspects which require urgent attention. So many of the problems of education have much to do with human relationships and when these do not go smoothly, conflictive situations result.

Goleman has described situations where students are being helped in areas which have previously not received attention. For example in some schools students are learning to identify and express their emotions[53] with the aim of helping them to avoid conflictive and destructive situations in and outside of the educational environment. Areas which appear so obvious turn out not to be so obvious after all.

Interpersonal intelligence helps us understand others. As such it is a vital element in teaching and learning situations, and for both teachers and learners. One important ingredient for all good relationships is empathy. For teachers, empathy, the capacity to recognise and understand the feelings of others is a basic requirement. Rogers (1984) psychologist and educator, identified three characteristics or attitudes embodied in facilitative teaching process

- Genuiness: being yourself, not playing a role in front of your learners.
- Acceptance: regarding each learner as a human being of worth
- Empathic understanding: understanding the student's reactions from the inside

> Empathy is a kind of understanding that is sharply different from the usual evaluative understanding which follows the pattern of 'I understand what is wrong with you'. When there is a sensitive empathy …the reaction in the learner follows something of this pattern 'at last someone understands how it feels and seems to be me without wanting to analyse me or judge me'. This attitude of standing in the other's shoes, of viewing the world through the student's eyes, is almost unheard of in the classroom …But it has a tremendous releasing effect when it occurs (Rogers & Freiburg 1994: 125).

[53] This involved providing students with photos of faces, in which they have to identify the emotions expressed through the evidence of the facial expressions, like raised eye brows, wide open eyes etc., and then to match a word with an emotion and the emotion with a facial expression. Most of us are conscious of the difference that comes over a face and our own reaction to it when a scowl, or an aspect of deep introspection is suddenly replaced by a smile, and the anticipated aggression is instantly dissipated. But not everyone is, nor it seems are some prepared to look beyond the initial interpretation instantly reacting to what might be after all a mistaken signal. Goleman gives the example of the school bully who reacts because he confuses neutral expressions for hostile ones.

In the classroom, interpersonal intelligence has particular relevance both with regard to the learner and the teacher. In the fostering of interactive and participative classrooms it is this facility which is required in making friends, in working cooperatively and productively in groups or in asking for help. The importance of setting up good working environments conducive to learning and progress in classrooms should not be under estimated and while this is important in all subject areas it is particularly relevant in foreign language classrooms (Hadfield 1992, Hoffman & Barkowicz 1999, Robles) Key factors on which such conditions rest are intrapersonal and interpersonal intelligence, both of which are relevant for teachers and learners alike. Classroom activities with a dual focus, (working on awareness raising and developing inter/intra personal intelligence at the same time as working on language) can help build good cooperative classroom environments[54]. Criticism is often expressed about the introduction of elements into classroom activities which seem not to be directly related to the subject to be taught, because of lack of time, the demands of the syllabus and so on. But in fact activities like these incorporated into classes can facilitate the learning process making the task of teacher and learner easier at the same time as providing valuable language practice. These types of activities can be introduced into all kinds of teaching areas, but they fit perfectly into foreign language teaching situations, because while dealing with the language (the subject being studied) they also deal with other important aspects like self esteem, self image, perceived ability and working with others

As the co-ordinator and facilitator of most that goes on in the classroom, interpersonal intelligence is even more important for the teacher. The positive learning environments that can be created when rapport and empathy exist allow teachers to fine-tune their teaching to better suit the needs and interests of the learners. This is a crucial factor in reading and responding to the unfolding quality that we see as characteristic of creative teaching. It sharpens awareness of the different learning styles, sources of motivation and interests of any particular group of students. Robles emphasises the importance of sensory acuity in being able to register the reactions of others. As we have pointed out in other sections of this study many of the messages we send and receive as human beings both in and out of classrooms are non-verbal and while we may not be consciously aware of them, their influence on our behaviour is undeniable. Non-verbal signals give us clues as to how information in processed in those we teach and thus in response to signals received, we might better be able to adapt the activities we use in class to suit the learning styles of our learners.

[54] See for example Hadfield 1992, Hoffmann & Barkowicz 1999 Robles, Electronic source <http://www.galeoncom.aprenderaaprender.

4.3. Summary: Implications for creativity in teaching

Whether or not we take on board all the distinctions and separate strands in the intelligence of human beings that Gardner has put forward, it is not difficult to see just why the implications of this work have had such reverberations on education. For those who are concerned enough about the students they work with to take into account their different learning styles, their strengths and weaknesses and thus make teaching and learning more closely approximate the needs of their students, then a knowledge of multiple intelligences provides educators with a valuable tool in which to incorporate in their teaching.

Awareness of different aspects of intelligence should make us very conscious that not all students should be expected to shine in those areas which are traditionally given credit over and above all else, the kind of intelligence which is demonstrated in logical-mathematical and linguistic ability. Acting on this awareness will help educators, teachers and anyone involved in the education of young people to find ways of balancing areas of teaching and learning so that they might better cater for the strengths of their students and in addition to encourage learners to explore and develop other ways of expressing themselves and achieving success and personal satisfaction. Also as we have seen, areas which are encompassed by emotional intelligence are vital elements which need to be incorporated into the range of skills of teachers in their own practices and in helping their students to better function in classroom situations and beyond.

The broadened perspective of intelligence that Gardner has offered may be cheering for many people, whose strengths do not link them to linguistic and logical-mathematical attainment, even if the recognition comes a little late in life. Especially those who may have had the strong conviction during their own years moving through the education system, that they were somehow being forced to fit into boxes which were not the right shape for them. They may have been made to feel slow or lacking in some way which resulted not from any shortcoming on their part, but rather from the traditional way of teaching which did and still does, expect people to fall into the narrow confines of linguistic and logical mathematical types of intelligence.

Gardner's work is relevant to our study for the perspective it opens on human intelligence and for the repercussions and reverberations it most certainly has on informed teachers for the way they plan and carry out their teaching, for the way they create and manage their students' learning experiences, and no less important, in the way they evaluate students' work and progress. In recognising that the potential of our students is not necessarily contained within the narrow confines

of academic achievement we encourage the growth and development of each individual in ways which best suit them. We open the possibilities rather than limiting them and as such we open the doors to creativity. Creativity on the part of learners who are not forced into boxes into which they do not comfortably fit and where any creative spark they may have had is extinguished. In addition the increased awareness of areas like multiple intelligences, emotional intelligence and the importance of affect in learning provide additional insights which make teaching itself more creative and flexible to the conditions and the learners one is working with.

5. NEURO LINGUISTIC PROGRAMMING

While we do not intend to give a complete description of NLP[55] in this study, we will highlight specific areas which are especially relevant for teaching and learning and moreover which we consider to have important implications for creativity. Neuro Linguistic Programming has sometimes been viewed as a rather fringe area, lacking[56] the respectability and backing of scientific research. In addition it has sometimes generated negative evaluation for its potentially manipulative nature and use by unscrupulous purveyors. Nevertheless, its possible widespread applications have filtered through to many areas of life.

NLP is a name that encompasses the three most influential components involved in producing human experience: neurology, language and programming. The neurological system regulates how our bodies function, language determines how we interface and communicate with other people and our programming determines the kinds of models of the world we create. Neuro-Linguistic Programming describes the fundamental dynamics between mind (neuro) and language (linguistic) and how their interplay affects our body and behaviour (programming).

---

[55] The literature now available on Neuro Linguistic Programming is vast. As we have mentioned above NLP has applications in many areas of human endeavour. Many publications address themselves to very specific areas, for example, sales and marketing and sport. Other publications, however, set out the key concepts of NLP and general applications in varying degrees of complexity and simplicity. More recently the applications of NLP to Foreign language have been and continue to be explored and have resulted in agreat variety of different types of publications.

[56] There is however, a growing area of investigation revolving around NLP. See for example the web site database, http://www.nlp.de/research/ While there is not always agreement as to some of the more esoteric claims of NLP, some aspects of NLP are areas which seem to be intuitively applied by successful communicators in all areas of life, including teaching.

> NLP is a pragmatic school of thought - an 'epistemology' - that addresses the many levels involved in being human. NLP is a multi-dimensional process that involves the development of behavioural competence and flexibility, but also involves strategic thinking and an understanding of the mental and cognitive processes behind behaviour. NLP provides tools and skills for the development of states of individual excellence, but it also establishes a system of empowering beliefs and presuppositions about what human beings are, what communication is and what the process of change is all about. At another level, NLP is about self-discovery, exploring identity and mission. It also provides a framework for understanding and relating to the 'spiritual' part of human experience that reaches beyond us as individuals to our family, community and global systems. NLP is not only about competence and excellence, it is about wisdom and vision (Dilts 1999)[57].

With a key concept of NLP being the 'modelling of excellence', and the suggestion that by studying the strategies of outstandingly successful people those strategies can be modelled and applied to others, thus helping to maximise human potential, it has been applied to many fields for example sports, business, sales marketing and education. More specifically it has special relevance to the area of teaching of English as a Foreign Language where it has found a niche together with humanistic and affective approaches to foreign language teaching, providing another feeder area on which to draw in enriching teaching and learning experiences. While many subject areas in education may benefit from aspects of NLP, perhaps areas involved in the teaching and learning of foreign have most to gain. The intertwined elements of brain, language and behaviour in NLP are also those with which we are concerned in Foreign Language teaching. By foreign language teaching far more is implied than the transmission of a body of knowledge about a language.

Learning a language for real communicative purposes is a complex process which involves more than just learning about the language. It also involves many other areas like beliefs about one's capabilities, one's self identity and self esteem which are areas of knowledge important to all teaching. In the area of teaching foreign languages these aspects take on a special importance, for problems sometimes arise not so much from the perceived difficulties of grammar or pronunciation, but for the challenges the target language seems to present to some learners in terms of self-image and self esteem. Thus an awareness of and a considered

[57] Electronic source < http://www.nlpu.com/

application of relevant Neuro Linguistic Programming techniques to the area of Foreign Language Teaching can provide another useful perspective in facilitating learning processes. By providing more options for the teacher in unlocking the potential of learners it also has important implications for creativity and in fostering creative language use.

5.1. Development of NLP

NLP began in the early 1970s when at the University of California, an American professor of Linguistics, Bandler, and psychology student Grinder, joined forces in the pursuit of human excellence, their aim being to try and determine the differences between people who excel and more ordinary mortals. They took as their three models of excellence, psychologist and originator of Gestalt therapy, Virginia Satir a leading figure in family therapy, and Milton Erickson[58] whose ideas are embodied in Ericksonian hypnotherapy, in addition they drew on the insights of others including the British writer and thinker, Gregory Bateson[59], notable for his work in the areas of anthropology, cybernetics and communications theory. They found that all followed similar patterns in relating to their clients and in the language they used, in addition they all held similar beliefs about themselves and what they were doing. Bandler and Grinder were especially interested in the apparent unawareness of these outstanding of the existence of such patterns and beliefs, and embarked on a process of discovering what the specific patterns and beliefs might be. In addition they were interested to see if their patterns of verbal and non-verbal communication skills and beliefs might be learned and applied by other people. These patterns and beliefs were developed into Neuro Linguistic Programming and led to a whole collection of techniques for both personal and professional use. As NLP is a generative psychology, one should be familiar with the techniques, be able to apply them and in addition one be able to use the ideas and techniques, developing and personalising them depending on the different situations and the different people one is working with.

[58] Milton H. Erickson (1902-80) is generally considered to be a most important hypnotherapist. He was a psychiatrist/hypnotherapist practising in Arizona, Phoenix, USA. Born colour blind, he was affected by polio at the age of 19, and in the process of curing his disabled body himself by modelling how the small babies in his family began to learn to move their hands and legs, his sensory perception on the level of non-verbal communication was made extremely acute, and helped him later in inventing non-conventional «Ericksonian Hypnosis». Gregory Bateson, the teacher of Grinder and Bandler, who advised them to visit Erickson, and after modelling Erickson, they published their first NLP book «The Structure of Magic I» in 1975.

[59] Gregory Bateson (1904-1980) was a British born anthropologist who studied communicational patterns in New Guinea and Bali and later conducted research in psychiatry at the Mental Research Institute in Palo Alto, California, USA.

While NLP has various principles and presuppositions and uses specific strategies which we will outline here. However one may also be aware that teachers who are concerned with teaching people, who are concerned with building confidence and self esteem in learners and thus in facilitating the learning process often intuitively use techniques and approaches which have much in common with NLP. If we look at some of the fundamental aspects of human relations and especially at elements which good teachers automatically and instinctively bring to their teaching, we find them in NLP. While these qualities often remain automatic or intuitive and unobserved in good teachers, NLP serves the function of bringing them out into the open, refining and clarifying them.

5.2. Principles of NLP

The concepts embedded in NLP are not in themselves unique nor indeed are they in any way rare or only to be found in NLP practices, rather they are a synthesis of elements which are present to a greater or lesser degree in human behaviour. The main contribution of NLP seems to be in drawing attention to aspects of human functioning which most often lie beneath our conscious awareness, bringing them into the light of conscious examination, honing sensory awareness and providing techniques and strategies to maximise human potential. There are four main principles to Neuro Linguistic Programming. Sometimes referred to as 'pillars' for the fundamental importance they play in the structure of NLP. They are as follows: rapport, outcomes, sensory acuity, and flexibility.

5.2.1. Rapport

Rapport is relationship with oneself and with others. Embodied within the concept of rapport is the quality of mutual trust and responsiveness to others. On a personal level this signifies that the greater degree of physical rapport one has with oneself, the greater one's health and well being and that the human organism is working in harmony. The greater degree of mental rapport one has with oneself, the more one feels at peace with oneself and the different parts of the mind are united. Rapport at a spiritual level can be manifested as a feeling of oneness with the universe, of belonging to a larger whole, beyond individual identity. These two directions of rapport are reflected in aspects of Gardner's intrapersonal and interpersonal intelligence.

5.2.2. Outcome

Key to NLP is the clear definition of one's goals or outcomes. The principle is that we need to know what we are aiming for. NLP holds that if we have not defined precisely what we are aiming at we are unlikely to achieve our goal, a vague and amorphous goal needs to be replaced by a more specific desired outcome. NLP rephrases questions like "what's the problem?" and instead substitutes questions like "what outcome do you want of this situation?'moving away from the negative focus of the question and shifting it towards positive and more specific outcome.

5.2.3. Sensory acuity

Sensory acuity involves the development and honing of our sensory awareness systems. This involves sharpening the ways in which we look at, listen to and feel what is going on around us. The feedback from our senses can help us to fine-tune our responses to function more efficiently in working towards achieving our goals. In some ways NLP seeks to make conscious many processes which we have come almost to ignore, processes that go on at levels beneath our conscious awareness. Young children seem particularly adept at picking up sensory clues often relying more on these than on spoken language. Some retain the ability to "see through" the words of adults when they begin to acquire and understand spoken language.

5.2.4. Flexibility

Behavioural flexibility means being open to different possibilities and being prepared to try them in the process of moving towards successful outcomes. NLP reminds us that when we reach an obstacle in our path we need to try out different approaches rather than trying again and again in the same way. Stuck in the groove of repetitive habit patterns and unable or unwilling to break out we are unlikely to resolve problems and achieve successful outcomes. Such patterns will be discouraging and lead to a likely loss of the necessary motivation for future attempts.

5.3. Implications of the principles for creative teaching.

These four principles in themselves provide a bedrock for good teaching. If we examine them in a little more depth from the point of creativity in teaching we see that they are also closely interconnected with elements of creativity which we have discussed in other sections of this study.

5.3.1. Rapport

The first principle or pillar of rapport is one without good teaching cannot exist. Without rapport a vital element for the creation of good learning environments is missing, and reduces teaching to the transmission of knowledge, a situation which can not facilitate the proper assimilation of the target language, if as we have emphasised that language is to provide another means of expression for the learner. Good rapport in the classroom, between teacher and students, and between students themselves can open the doors to real learning and personal development. NLP also includes within rapport, the relationship with oneself, and this too has important implications for teachers and learners alike. For teachers it means finding ways of working which are compatible with one's beliefs and personality and similarly in helping students to find ways of working which are compatible with theirs.

5.3.2. Outcomes

Clear outcomes are important in teaching and learning. As outcomes in NLP are also seen as change or personal development, in the language learning context, outcomes could be viewed in terms of the enabling power of the language learnt, rather than in outcomes related to external systems like for example the passing of examinations. From the teacher's point of view outcomes can be seen in the progressive enabling of students to be able to use the target language effectively and thus in addition form part of the committed teachers own outcomes. The establishment of clear objectives, in the traditional sense are an integral and necessary part of teaching, but viewing outcomes from an NLP point of view adds another vital dimension to the teaching/ learning process.

5.3.3. Sensory acuity

Sensory acuity is dealt with in some depth in NLP. More than just suggesting that sensory acuity be developed in general ways, it sets out some very specific pointers, mainly related to eye movements and bodily movements and breathing which NLP claims, reveal links with the way we think.[60] In particular NLP claims that eye

[60] The physiology that goes with visualising tends to be reflected in upward or level movements of the eyes, breathing tends to be clavicular, with short, shallow breaths, breathing and speaking are quicker than in other modes. In auditory thinking, there may be small rhythmic movements of the body, often swaying from side to side. Voice tonality will be clear, expressive, and often musical. People thinking in auditory mode often put their head to one side, as if listening to voices and sounds in the head. Kinaesthetic

accessing clues reveal visual, auditory, kinaesthetic and internal dialogue thinking tendencies. For example, in general, people will look upwards or defocus when visualising. When hearing sounds internally they may move their eyes from left to right and they may look down to their right when thinking kinaesthetically, while looking down to the left usually signifies internal dialogue. While these movements are consistent and mostly unconscious, they are general patterns and are not necessarily true for everyone all the time (O'Connor & Seymour 1990) which are related to the bodily movements mentioned thus underlining the mind body connection implicit in NLP. It should be pointed out that the brief outline we have offered here is a much simplified version of what are quite a complex set of patterns which few teachers in normal teaching situations would find easy or practical to apply. However some simplified versions have been designed for incorporation into teaching learning situations[61]

What then are the applications of such information? O'Connor and McDermott suggest various applications which include tuning in one's own mind and body. The suggestion is that by for example co-ordinating eye movements to the type of thinking one is doing we will function more effectively. Thus to visualise one should look up, to contact one's feelings one should look down. Within teaching one very practical application would be to place visual aids placed up and to the left, making later access of the information easier to recall[62]. While thinking and its different physical manifestations are largely unconscious in most people, just as in many other areas of life, habits easily become established. We may fall unwittingly into or be forced by circumstances into patterns of behaviour that may in fact limit or reduce our

thinking, thinking with the body, may involve a slumped rounded posture; the person will be looking downwards which helps them to get in touch with body feelings. Breathing may be abdominal. As feelings are slower to manifest than images, conversations between visual thinkers and kinaesthetic thinkers can be frustrating for both parties, visual thinkers may be frustrated and impatient with the slow delivery of the kinaesthetic type , while the latter may feel hurried and pressurised by the visual thinker.

While we are reminded that there is no universally agreed body language, nor that people necessarily fall clearly into one category or another, there seem to be many people who habitually favour one system.

(O'Connor and Seymour 1990). These elements can be incorporated into teaching/learning situations, and various writers have given example of how this might be done, see for example Fletcher 2000, Revell & Norman 1997.

61 See for example Fletcher 2000, Revell & Norman 1997.

62 There are many useful applications of this technique for the teaching of reading, vocabulary and spelling in general. Revell and Norman (1997) suggest a simple NLP spelling technique especially useful for foreign learners of English who use an auditory phonetic approach and thus experience difficulties with English orthography (see appendix for example)

capabilities[63]. Teaching and learning techniques may even be counter productive but with an awareness of elements such as those we have mentioned here, small details which could be changed for more effective practices.

5.3.3.1. SENSORY REPRESENTATION SYSTEMS

NLP sees behaviour as a reflection of our inner experiences. We can become more aware of our different representational systems through the language we ourselves or others use. Thus internal visual representations might be expressed with language that predominantly makes reference to things visual, auditory, or kinaesthetic, for example 'I see what you mean', 'the future looks bright', or, 'it colours his view of life' reflects a visual mode of thinking. Some examples of auditory modes are 'on the same wavelength', 'loud and clear' and 'turn a deaf ear'. Kinaesthetic representational systems might be made manifest in expressions like, 'get to grips with an idea', 'put your finger on it', and 'hold on a moment'. In NLP terminology the words and phrases which demonstrate which internal representation is being used are called predicates and predicate phrases.

In teaching, using a mixture of different predicates will enable one to reach more people in their own representational system. If we let more visually oriented people 'see what we mean', the auditory thinkers 'hear us loud and clear', and the kinaesthetic thinkers to 'catch on to what we say', then there is more chance that each individual will unconsciously feel the message to be more meaningful for him and therefore more likely to be internalised and assimilated. Any means we as teachers have for maximising personal responses and keying into learners' albeit unconscious representational systems[64], can only help to maximise and increase potential achievement which in turn suggests a freeing and liberating of creative possibilities. Of course we can also widen the possibilities for learners themselves by making them consciously aware of their own representational systems [65] and

---

[63] O'Connor & McDermott (1996) describe the experience of a professional violinist who complained of being nervous and distracted when she played, feeling lacking in confidence and at the mercy of an internal dialogue which she could not silence. She shared a music stand with a fellow musician who stood on her left, as the music stand was between them, she had to look down to her left to read the music. as looking down to the left will often access internal dialogue, a change in the position of the music stand was all that was needed to shut off the intrusive negative internal dialogue. We might reflect on how often we do not feel completely at ease in some position we are working in, often it is a question of physical posture, but we might also bear in mind compatibility of mind and body.

[64] NLP often refers to these sensory representational systems by the acronym VAKOG: Visual, Auditory, Kinaesthetic, Olfactory and Gustatory

[65] Examples of classroom activities which can raise awareness of sensory representational systems and sensory acuity are to be found in Revell & Norman (1997) For specific examples of awareness raising activities for teachers see Appendices 2 & 3.

thus promoting a better understanding of their own ways of thinking and representing their experiences of the world.

5.3.4. Flexibility

Flexibility of thinking is seen as a key element of creative thinking. We have discussed in other sections the role of flexibility in creative teaching, of having options and choices available to us and of being to draw on this repertoire as and when they are required in a considered response to the ongoing situation in the classroom. It also implies the readiness and ability to explore different ways of working or approaching a situation from a different perspective when something is not working. The unfolding quality of creative teaching demands flexibility on the part of teachers while working within the constraints imposed by systems and syllabuses, hours available and so on.

5.4. Presuppositions of NLP

A series of presuppositions lie at the heart of NLP and it is an awareness of them that underlies much of NLP thinking. By acting as if these presuppositions were true, they can have positive effects on one's life. By extension they also have positive implications for teaching and learning. Going further, as the core concept of NLP is in modelling excellence there are important implications for any area where creativity is aimed for and this most certainly includes teaching and in fostering creativity in learners. While we have listed some of the suppositions below[66], Dilts (1999)[67] points to the two fundamental presuppositions which are the essence of NLP.

[66] Other presuppositions are:

The map becomes the territory. What one believes to be true either is true or becomes true.

There is no failure, only feedback

Knowing what you want helps you get it

The resources we need are within us

Modelling excellent behaviour leads to excellence

In any system, the element with the greatest flexibility will have the most influence on that system.

Communication is non-conscious as well as conscious

The meaning of my communication is the response I get (O'Connor & McDermott 1996)

[67] Electronic source< http://www.nlpu.com/

- ***The Map is Not the Territory.***

As human beings, we can never know reality. We can only know our perceptions of reality. We experience and respond to the world around us primarily through our sensory representational systems. It is our 'neuro-linguistic' maps of reality that determine how we behave and that give those behaviours meaning, not reality itself. It is generally not reality that limits us or empowers us, but rather our map of reality.

- ***Life and 'Mind' are Systemic Processes.***

The processes that take place within a human being and between human beings and their environment are systemic. Our bodies, our societies, and our universe form an ecology of complex systems and sub-systems all of which interact with and mutually influence each other. It is not possible to completely isolate any part of the system from the rest of the system.

5.4.1. Implications of these presuppositions for creative teaching and encouraging creativity in learners.

In the presupposition 'the map is not the territory', NLP draws attention to the fact that we all create our own realities through the information which comes to us through our senses. There is no one definitive reality. As teachers interested in the development of our students we need to be aware that there are many ways of thinking and doing things. We need to be open to these differences and similarly to encourage learners to be open to and interested in the differences in their fellow students. We should acknowledge our students' different maps and use them to advantage to generate learning. We should avoid guessing what other people's maps are, if we are wrong we risk imposing something on them which is not theirs. Yet there may be something to be gained in trying out other people's maps for they may give us insights into how others do things and may open up new possibilities we had not previously considered. Revell & Norman suggest a useful activity[68] to be

[68] In a simple activity students are asked to write down the first thing that comes into their minds in response to the following: a fisherman, a mermaid, an artist, a child, an ice cream vendor, and a computer scientist. Attention is then directed to possible assumptions we might have made about the different views of the sea as seen through the eyes of the different characters. In the case of the computer scientist his view of the sea would also depend on the circumstances of his involvement with the sea. It is useful to discuss students' responses, noting that where the majority agree it may because they are imposing their our own map on the different characters according to our own perceptions. (Revell & Norman 1997: 27)

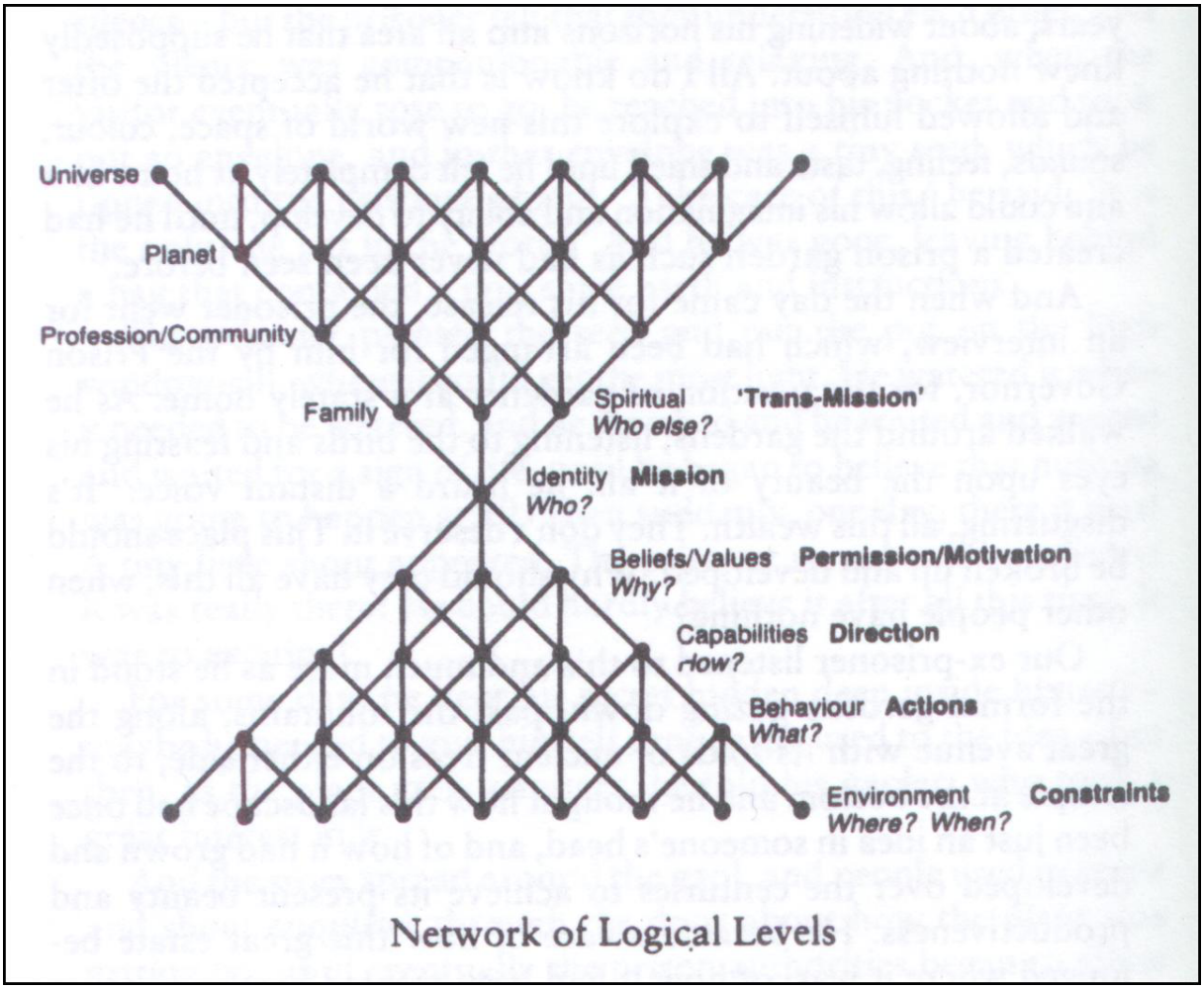
used in class which can raise awareness of other people's maps of the world. They also take the idea of a map more literally in an activity which asks students to choose a map to represent themselves and their lives. By using metaphor[69] we can open up new perspectives and reveal areas that may have been overlooked or ignored when viewed within the normal context. In a related presupposition, 'the map becomes the territory', attention is drawn to just how easily the internal reality that each and every person creates, can so easily become deeply entrenched and part of one's belief pattern.

In the second of the principles the interconnectedness of all things is stressed and echoes much present day thinking which recognises the impossibility of making divisions between the functioning of the mind and the body. Modern science and biology seems to confirm what practises like yoga have always held to be true, that the optimal functioning of human beings is in the unity and close interrelation of mind and body. This holistic view of life is now apparent in the area of medicine and in some enlightened teaching situations where this is seen to be a key factor in creating optimal learning conditions. The majority of educational systems however still act as if the minds and bodies of learners were two distinct systems.

In an interesting extension of the map concept, a further activity (27) is offered which asks students to consider what type of map they would choose to represent themselves and their life. Some suggestions are given to trigger off ideas, for example: a detailed wall chart, a tiny geography book sketch, a world atlas, a fold up road map, a sketch on the back of an envelope. Questions to direct further thinking might be, how big is your map? What condition is it in? Does the map represent your life as it isor as you wish to be? And so on. Activities like these are useful as they offer a chance to reflect on aspects of ourselves which we rarely give time to, they allow us to compare and share our ideas and therefore our possibilities with others. In addition they encourage thinking in the very fruitful area of metaphor which helps to clarify and enlighten by reframing an idea within a different context

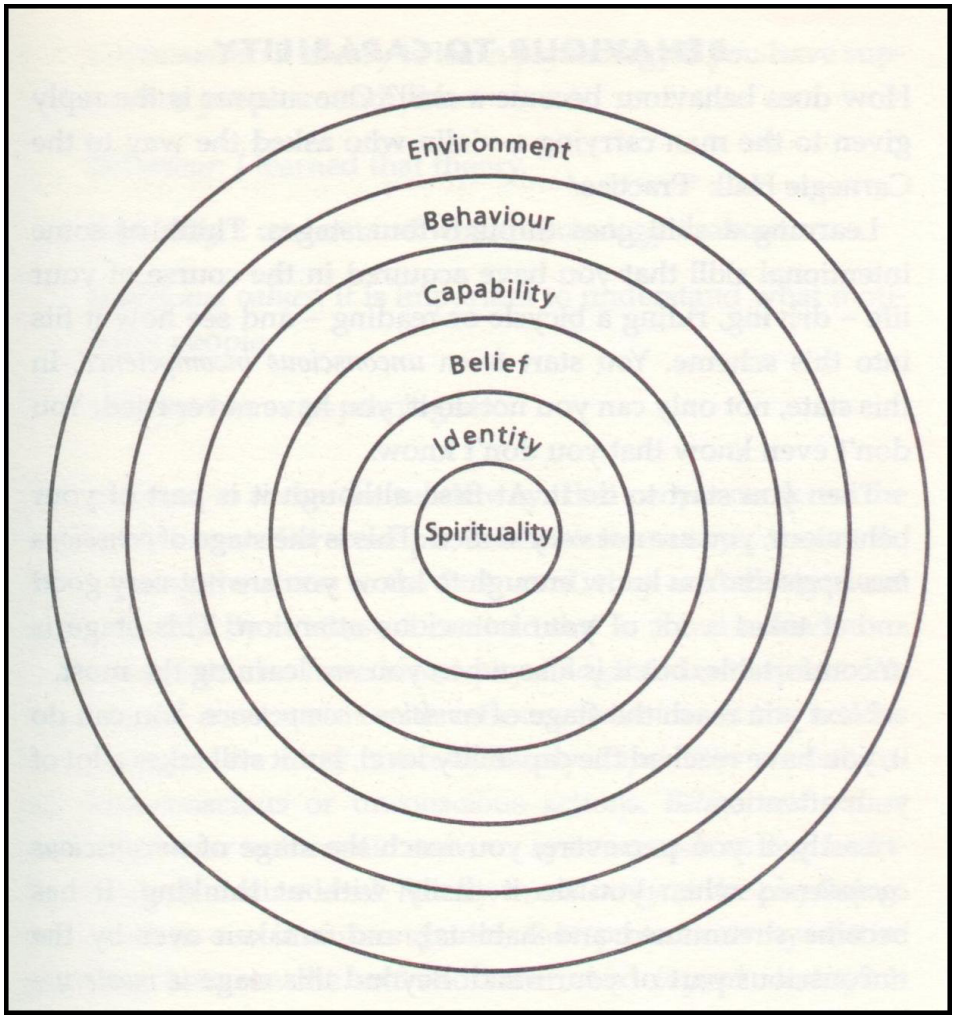
[69] NLP uses the word, metaphor, in a rather different way from its normal usage in the study of literature, instead it is 'an indirect communication by a word, expression or story which implies similarities between things or events' (Revell & Norman: 101). NLP frequently uses stories where messages are embedded in different contexts and which help to transmit a message in a less direct yet often more powerful way. In our own experience on pre-service teacher training courses, the use of metaphors has been particularly useful in shedding new light and different perspectives on the concept of teaching and learning.

5.5. Life levels



Life levels, a version of a model developed by R. Dilts (1991) and drawing on the work of G. Bateson has also been called logical levels, neurological levels, or nested levels of experience. It views a person's experience as functioning on different levels, each level affecting and being affected by the others and as such provides a useful way of exploring and integrating the different levels of our lives. The diagram below is Dilts' representation of the Logical Levels.

O'Connor and McDermott (1996) see life levels as providing a useful structure within which to think about personal change and the building of rapport and use another means of representing the interrelatedness of the life levels.



Level 1: Environment

We live our lives in many different environments, home, work, school, or college, involved in sports, at social events and so on. In addition in these environments we are involved with different people, and shared circumstances can build rapport. For example at this level within a group of people attending an evening class of their own volition on a particular subject, their common interest makes a point of contact and can promote a basic degree of rapport.

Level 2: Behaviour

This is the level of specific behaviours: what we actually do. In different environments we have different roles, behave in different ways and do different things according to those roles. We may sometimes wish to change our behaviour, for example give up

smoking, control a hot temper, or bring oneself to speak aloud in an language class. However bringing about changes in behaviour can be made difficult because behaviour is not an isolated phenomenon but closely linked to other neurological levels.

Level 3: Capability

This is the level of capability and skills. These are skills that have become automatic to us, through continuous practice during our lifetimes. It also includes strategies and physical skills we have acquired over time. By contrast something we achieve and which we put down to chance, with the implication that we are unlikely to be able to repeat the experience, is not yet consolidated as a capability.

Level 4: Beliefs and values

This level is influenced by our beliefs and values which to a large extent govern the way we live our lives. So integral are they to us that give us permission to be able to do something or acquire certain skills or on the contrary prohibit us from doing something. Skills we may wish to have may be limited by our beliefs, and similarly if we do not value a skill it will be a difficult task to acquire it. In addition we are capable of holding conflicting beliefs which can lead to contradicting actions.

Level 5: Identity

Identity is one's sense of self, this includes one's core beliefs and values and determine one's mission in life. While one's identity is generally resilient and constant, it can be built on, developed and changed.

Level six: Spiritual

This level relates to ones' connection with others and to what lies beyond our own individual identity. At this level rapport is sometimes described as being at one with the universe, humankind or God.

If we are able to bring all our life levels into alignment we will feel that our lives are on track and fulfilled but conflicts and misalignment can provoke feelings of unease and confusion both in our everyday lives and in our longer term life plans. Factors

at the higher levels are most influential, if all the conditions are fulfilled at the lower levels yet we do not believe that we can achieve something we may lack the necessary drive to carry it out to a successful outcome. On the other hand many other influences may apparently work against one's goals, but if one's beliefs and motivation are strong enough they can overcome misalignments on other levels.

> Fulfilment comes from having all the levels in alignment, So for example if I am in a place I like, doing things I enjoy, using skills I enjoy, sustained by positive empowering beliefs, having a strong sense of this being part of who I am and connected to a higher sense of purpose, then I am centred, congruent, and content. On the other hand having one or more levels out of alignment can lead to a sense of unease or even great unhappiness. If you have to behave in certain situations which you feel are not 'you' or which compromise your beliefs, you are likely to be unhappy. If you are doing lots of things at a superficial level, but which are ultimately leading you away from what you perceive as your ultimate goal in life, you may come to regret having 'wasted time' (Revell & Norman: 79).

5.5.1. Implications of live levels for creative teaching

> As considerations such as these obviously relate to everyone in all aspects of their lives they are also applicable in learning situations when misalignments in one or more levels can also clearly affect one's ability to learn successfully. While the teacher cannot be held responsible for aspects of learners' lives outside of the classroom, awareness of the "life levels" concept can have important implications for teaching and learning situations.

As we have emphasised in this study, effective learning draws on many different levels, both conscious and conscious. In teaching creatively and fostering creativity in our students we need to take into consideration any areas which will maximise our possibilities in facilitating the learning process and in encouraging creativity. We therefore see the implications of NLP's model of Life Levels as being encapsulated in the following considerations.

5.5.1.1. ENVIRONMENT

We need to ensure that the classroom environment is as conducive as possible to effective learning. While we cannot always do a great deal to change the physical

conditions of the rooms we work in, we should consider how we can maximise the possibilities of our working space to make it them more attractive places to be in.[70] In fostering creativity many emphasise the importance of the work space or environment. On a personal level and when working in one's own home or office there are many elements which one can arrange to facilitate creativity. However educational establishments are rarely thought of as places where creativity may occur and the physical conditions of many learning environments leave much to be desired, even for learning let alone for the fostering of creativity. In describing elements of personally creative environments,[71] Herrmann (1989) underlines the importance of considerations which, seen from a slightly different perspective could well form an integral part of teaching and learning situations. These may seem to have little to do with most teaching situations, yet a great deal of one's life as a student or schoolchild is spent in educational establishments and any attempts to make the learning environment more learner friendly would be welcome. Herrmann's definition of creative space [72] becomes even more relevant when broken down into three elements: the individual, the environment and the interface between the two. While this is intended to describe the dynamics of creative space, a slight shift in our focus can help us see how factors seen as integral to personal creativity are also integral to good teaching and learning environments where creativity on the part of teachers is a key factor and where students are in addition to the acquisition of a solid basis of knowledge, also given opportunities to use language creatively.

---

[70] Much thinking these days is dedicated to improving working conditions in companies where creative outcomes are required. While these conditions may be impossible to reproduce in normal teaching conditions, there are nevertheless points we can draw on to make learning conditions more amenable and conducive to learning and creativity. On a very basic level we have introduced this element into pre – service teacher training courses, where we have involved students in brainstorming ideas for brightening up foreign language classrooms and making them more interesting and motivating places to be. See appendices 9 and 11

[71] Herrmann sees a creative environment as one that is a composite of all that nurtures, supports, inspires and reinforces our creativity. On personal levels this includes ourselves, our families, our fellow workers, our reinforcing memories, our cuing systems, and our favourite places.

[72] Herrmann's vision of a creative space for personal creativity includes the following :

a) An environment which encourages a flow of energy to take place which in turn allows for change and movement to take place.

b) Suitability for the current phase of the creative process - adaptable and variable with suitable resources

c) Personal renewal - most easily and powerfully supplied by nature - the outdoors, sounds of wind and water, flowers, trees, birds, lots of nature vistas, and living, growing things around. It's especially important to have plenty of light and air available. Other things to include are music, books, toys and stimulating people when you need them.

d) Mutual Nurturing

e) Portability - elements of it should mentally follow you. The creative space that you carry around in your head is the most important of all. An ideal creative environment would be a physical metaphor of the whole-brain creative process and would appeal to all four quadrants of the brain.

5.5.1.2. BEHAVIOUR

The behaviour level applied to teaching, has repercussions for the type of activities which we select for our students, trying to ensure as far as possible that we plan in activities which are relevant, interesting, and useful as well as providing variety and choice. It is revolves around the behaviour of teachers and students in classroom situations, interaction between teachers and students being central and reinforced through rapport and empathy.

5.5.1.3. CAPABILITY

In addition teachers need to ensure that learners develop abilities and skills that enable them to feel that they are making progress and are able to communicate and express themselves in the target language. Running parallel to this we should also pay attention to students learning strategies, we may need to encourage students to identify and develop positive ways and productive ways of learning and facilitate this through our teaching methods. While some may already have successful learning strategies, others will not. Some will have inherited ways and techniques which while they may adequately serve some people but will not necessary work for all. Nor will they necessarily be the most useful or efficient learning strategies, bringing learning strategies into the open and discussing what seems to work and suggesting and feeding in ideas which are new or novel to the learners can often open doors to learning.

5.5.1.4. BELIEFS AND VALUES

It is important that teachers build in opportunities for success in their students. This can be done through positive, encouraging and confidence building attitudes on the part of teachers which are transmitted to the learners in a variety of ways. Students need to believe that they can learn, and perhaps to a certain extent teachers need to build in a degree of success in the activities and exercises they plan for their classes. In addition it is often necessary to work on reframing negative learner attitudes in the classroom, not necessarily an easy task but one which can be tackled and which in language classrooms combines language practice together with the reframing of negative learner attitudes. (Robles 1998, Puchta 1999, De Andrés 1999, Fletcher 2000)

5.5.1.5. IDENTITY

On the level of identity it is important that teachers recognise the individuality of each member of the class. Too often classes are treated as an amorphous, anonymous mass, where the individual feels undervalued and unrecognised and as a consequence, opts out of the classroom activities. Another situation which can cause the dropping out of students is in the apparent difficulty some learners have in identifying with the target language. This may happen for a variety of complex reasons, especially when the subject has been imposed on learners and they see no need nor reason for it, however this also happens when learners have entered into the learning of the language of their own volition, yet where deep rooted beliefs about their identity seem in some way undermined by the taking on of another language. (Schumann 1997). Informal discussions with adult learners have often revealed this difficulty, showing how some learners find it extremely difficult to accept the reality of another language even if they can accept it rationally.

5.5.1.6. SPIRITUAL

The level of spirituality is largely neglected in education systems except when dealt with through religious education classes. But in more general terms spirituality touches on areas where students can be helped to see their learning as part of a process of personal enrichment which takes them far beyond the limits of the classroom. Ideally education should not only be about gaining knowledge and the acquisition of essential skills, but also about personal development in its fullest sense. In a discussion focussed on secondary school educational systems (Mc.Carthy 2000[73]) suggests that if spiritual education is to do with seeking answers to life's great questions, then teachers should be leading pupils towards open ended enquiry and inviting them to take increasing responsibilities for their work. This can only come about when there is an ethos in schools and educational establishments which values imagination, inspiration, contemplation of and a clear understanding of right and wrong, opportunities for reflective and aesthetic experience and the discussion of questions about meaning and purpose.

Pursuing the issue of spirituality further, similarities with creativity emerge. Spirituality, like creativity is hard to pin down and define. It draws attention to what

[73] McCarthy, K. in a seminar on creativity in education "Poised on the edge: creativity and spirituality" London:2000<http://www.mailbase.ac.uk/lists/creativity-in-education

is invisible but not illusory, to what is powerful but not explicable and what is non rational but not meaningless. Pedagogic processes of spiritual education in schools have common threads with those recommended for the development of creativity. Both spirituality and creativity can be discerned through engagement with individual and shared experiences and both allow individuals to move away from the mundane and banal, putting them in touch with higher levels of being.

A recent British Ofsted [74] report drew attention to creativity as a quality and capacity which goes beyond individual subjects, which can permeate the methods of teaching, the ethos of the school, including the relationships between teachers and learners, as such it as much about process as outcome in teaching. It has to do with attitudes of open enquiry and making connections, seeing analogies and relationships. Creativity was viewed as a way of giving form and meaning to feelings, relying sometimes on nondirectional and intuitive modes of consciousness. It both gives and requires respect and trust and moreover it nurtures self-knowledge and self-esteem. The report suggested that the aim of education should be to enable young people to be more effective in the world; to deepen and broaden awareness of the self as well as of the world; and to encourage openness and reflexivity as creative thinkers. These concerns need not be limited to any one context or age group and by viewing creativity as an important area in teaching we may be also working on the more elusive areas of spiritual development.

6. CONSCIOUSNESS LEVELS AND OPTIMAL LEARNING: CREATING THE CONDITIONS FOR CREATIVE TEACHING AND LEARNING

Two main levels of brain functioning are usually identified; those that are conscious and those that are unconscious. Conscious levels of thought in turn are usually broken down into higher consciousness and normal consciousness. Beneath the level of conscious domains lie the sub-conscious and the unconscious.

Higher consciousness is that part of the human psyche which is aware of being aware. There has been an acknowledgement throughout human history that a higher awareness can exist, although it is most often associated with special states of mind rarely attainable for long periods of time by the majority of people. Some eastern philosophies and religions lead the seeking individual on journeys towards

[74] Ofsted, The British Government's Office for Standards in Education <http://www.ofsted.gov.uk/public/index.htm.

enlightenment where with practise such states can be reached. In meditation one is led to an observation of consciousness where behaviour is no longer only determined by conditioning which governs our daily experience. Sometimes higher consciousness states are experienced in tantalisingly fleeting and infrequent moments, perhaps in a flash of unexpected insight or creative inspiration, somehow giving one a glimpse of a whole world of possibilities that is there if only we knew how to access it.

Normal consciousness is our everyday reality, our internal world and our perceptions of the external world, with an incessant flow of sensations, thoughts, images, feelings desires and impulses, which we are able to observe, analyse and judge. Sometimes we seem to be at the mercy of such impulses, unable to control them, they control us. One of the aims of meditation is to calm this eternal internal babble of the mind and to seek higher states of consciousness. The extent of one's field of awareness limits our life experiences, the less aware a person is the more automatic will be his functioning. Most people drift on the surface of the stream of consciousness, identifying themselves with its successive waves, waves which are often triggered by events outside of ourselves and yet with which we often automatically identify. Consciousness is thus often unreflective, not consciously noted and determined by personal and social forces over which we seem sometimes to have little control. One of the objectives of Neuro Linguistic Planning[75] is to be able to override the automatic responses which so often govern our lives, thus minimising and limiting our personal possibilities and potential and allowing us to maximise our experience and to help us realise just to what extent we are governed by our automatic responses.

The subconscious is that part of the mind which a person is unaware of and which is out of his conscious control. Functions of the subconscious include important aspects such as the integration of new data and reprogramming where necessary, and it co-ordinates the carrying out of set patterns of behaviour which are left to the unconscious mind to carry out automatically leaving the conscious free to concentrate on the task in hand. The subconscious is where all the emotional and cognitive experience of a lifetime resides, and which forms a reservoir so vast that it seems inconceivable to our conscious minds.

The unconscious is usually described as containing the fundamental survival drives and primitive urges that empower the functioning of the mind as a whole, containing all the kinaesthetic recordings of the body and is integrally linked with the body. In addition it contains the deepest level of 'self' with fundamental experiences, imprints and decisions of the entire span of our lives from the womb onwards.

[75] Discussed briefly in part 5 of this section.

6.1. The primary process – secondary process continuum

The primary process – secondary process continuum is the main dimension along which cognition varies. Primary process thought is found in states such as dreaming and reverie, it is free associative, analogical and characterised by concrete images as opposed to abstract concepts and form the basis for intuition. Secondary process cognition is the abstract, logical, reality-oriented thought of waking consciousness. (1998) has labelled this type of thinking D-mode, where the D refers to 'deliberate', and has suggested that it might also stand for 'default' thus reflecting the western world's adoption of this type of thinking as its default mode.

Forming a mental stage between conscious and unconscious levels is the 'preconscious', which might be thought of as an interface between the two, a kind of antechamber of consciousness where various experiences are assimilated, mental and imaginative activities are elaborated and developed and in a sort of psychological gestation and interaction, before their birth into the light of consciousness. If the consciousness is thought of as a spotlight, the preconscious is that it lies within its range, but stays unlit until the light of consciousness falls upon it.

6.1.2. Processes in dealing with incoming information

Two systems or sets of processes have been identified in the field of psychology one of which is for the *transmission of information,* the other is for the *representation of information in conscious experience* (Dixon 1981) The first, the transmission of information, is a process that happens so rapidly that we are not, and cannot be consciously aware of its functioning. It monitors the environment around us, detecting change and through accessing previously stored information, an ability to appraise sensory flow and to react to it. Greenfield (2000) describes experiments which have shown while the brain can unconsciously process information almost immediately it takes longer for the conscious mind to become aware of what is going on. Greenfield points out that the half second taken for the event[76] to register on the conscious mind is a long time in the world of the brain where an action potential[77] can be over and done with in less than 2 milliseconds, thus demonstrating that much of what we do, and what we think of as skilled, deliberate and decisive must be happening too quickly for us to be conscious of it

[76] Top class tennis players can serve at speeds of up to 193 kms per hour, giving their opponent under 400 milliseconds to work out where the ball is going to land, the decision about how to return the shot has to be made subconsciously. Yet the response is far more than a reflex, it involves thinking strategically about exactly where to place the shot. Returning the tennis ball is a complex process and it is all done subconsciously (Greenfield 2000)

[77] An action potential is the electrical signal that moves through an activated neuron

6.1.3. Subliminal perception

Subliminal perception or perception without consciousness is part of everyone's life experience although we rarely pause to acknowledge it. It is sometimes manifested in those fleetingly flashes of intuition when we have a gut feeling about something, or a presentiment that something is about to happen, yet we are unable to pinpoint any specific input to prompt the response. A classic example of unconscious perception is common to drivers when suddenly coming to a realisation that one has been driving for some time without apparent conscious awareness of driving the car, the traffic or of the area one is passing through, this may occur while deep in thought or perhaps when one is involved in conversation with another. Our conscious mind is occupied in one world while our unconscious automatic pilot has been coping with all the implicit challenges of driving. Surfacing to consciousness of what we have been doing comes to us with more of a shock when driving perhaps because of all the incipient dangers of driving, yet similar processes occur all the time in our everyday lives. The reception of signals of which we are not consciously aware has sometimes been a cause for concern, in the 1960s worries were expressed over the supposed subliminal messages which were being sent out to film audiences with embedded publicity to buy certain brands of soft drinks, yet Claxton (1997) observes that subliminal advertising seems to be less effective in persuading us to buy what we really do not want than has been supposed. Nevertheless there is evidence to show that subliminal messages can and do influence our behaviour.[78]

Claxton points to the difficulties of describing subliminal perception which he attributes to our symptomatic cultural neglect of such areas, and uses the term

[78] One which experiment which has investigated how people decided between applicants for a job is summarised by Claxton (101), based on studies on unconscious perception carried out by Pittman and Thane (1992). In the experiment students were given the job specification – for a research assistant in the psychology department and asked to review the applications of two young male candidates and to make a recommendation as to who should be appointed. The only difference in the applications was that one had good computing skills but was poor at writing, while the other candidate was the opposite. Each application was accompanied by a photograph of a (different) young man. Before they took part in the study, the subjects had been asked to help out with another short experimenton visual perception, in the course of which they were exposed to five four –millisecond presentations of either of the two candidates faces, accompanied by the word 'GOOD'. An exposure of four milliseconds, under the lighting conditions used, is too short for any conscious impression to be gained. All the subjects saw was a tiny flicker of light, without any content. The students were twice as likely to choose, as the best person for the job, the candidate whose face had been subliminally presented. If it was candidate A's face that had been projected, two – thirds of the students chose candidate A over candidate B. If it was candidate B who was flashed up two– thirds opted for B. When they were asked to justify their decision, the subjects who had preferred candidate A, said it was because computing skills were more important for a research assistant than the ability to write well. The subjects who had chosen candidate B said that anyone could learn the requisite computing skills but to able to communicate fluently was of vital importance. The subjects of the experiment were unconsciously aware of the face that flashed too briefly for conscious recognition and of the association between that face and the positive evaluation conferred by the accompanying word GOOD.

'awareness' to refer to the general phenomenon of picking up signs and clues from the environment without being aware that we are doing so. While the existence of unconscious perception is accepted by cognitive scientists, curiously, and rather like the playing down of the role of imagery in our lives, this interface between conscious and unconscious goes almost completely unrecognised and ignored in many areas of life. Little attention is paid to this rich area in most education systems.

6.2. Mind states for optimal learning

It is generally assumed that one needs to be alert and consciously aware of everything that is going on around one for learning to take place. Yet bearing in mind the evidence that much of what seems to be conscious behaviour is in fact the result of constant traffic between the unconscious and the conscious action, not everything we do is then conscious. It has been suggested that, contrary to the idea of the necessity of maintaining a steady focus on the subject matter to be learnt, ideal learning conditions are those where the content matter is not necessarily held in focus during all the period of input or exposure to the material to be learnt. In any case it is known that concentration levels inevitably ebb and flow during any kind of sustained input so that even if we aim to maintain the same levels of concentration and interest this is hardly likely to happen. Rather than the 'sit up and pay attention' mode [79], (one which is most frequently demanded of learners in formal teaching situations) and which is a brain frequency better suited for doing than for learning, any new learning in this mode is limited to 'grazing' bits of information which go into short term memory and are quickly forgotten. Under these conditions frequent repetitions are needed to move information into our long-term memories. For long term recall or for a skill to become automatic the information must 'sink in'. In neurological terms this means that information needs to be given the opportunity to be picked up by other brain processes operating at a different frequency. This brain frequency[80] is one that is used naturally by children in assimilating a working knowledge of the world around them and in those educational settings which are conducive to learning in that non stressful and brain friendly settings have been

[79] This state creates patterns of electrical energy in the brain, beta waves, which are evident when the brain is focussing on the world outside itself, dealing with concrete specific problems.

[80] This frequency move towards 'alpha' waves and becomes apparent when the brain is alert but not necessarily sharply focused and when at the same time feelings of calm and relaxation are experienced. As alpha waves are usually associated with states of relaxation, much interest has been generated in the area of clinical biofeedback with the aim of reducing stress in different life situations, the idea being that if one could learn to produce alpha waves at will then one would be able to access relaxed rather than stressful states.

created for learners. It is claimed that learning in these conditions (Gordon 1995, Hooper-Hansen 1999, Lozanov 1978, Schuster & Gritton 1986) is more efficient, easier, enjoyable and often even perceived as effortless.

Yet education systems in general do not take this into account. Putting the main focus on conscious attention on particular items, it reduces receptive and analytical mental activity, while the natural dynamic of learning is to assimilate and analyse at an unconscious level to use the conscious faculty retrospectively for coding and rearrangement (1999). While we are aware of thoughts currently held in the conscious system, the receiving and monitoring system continues to receive and process information up to a high degree of semantic analysis. Thus preconscious learning highlights certain significant aspects:

- All received information has to be held in memory for a period of time during which it is regularly scanned for relevance in the light of new information arriving in the mind.
- Suppressed information, which is material which has not been selected for conscious awareness, far from being non functional, is given an increasingly higher priority for future access to consciousness.
- While stimuli remain subliminal, escaping the disciplined categorising and appraisal of conscious judgement, which fosters differentiation, they remain 'plastic' and adaptable, more easily combinable with other elements.

6.3. Peripheral vision

Deliberate and conscious ways of thinking as compared to more and less focused, free associative and analogical states suggest parallels with different types of vision. People in western societies tend to use foveal vision, that is where one point in front of the subject is concentrated on and details about that point are noted, everything else is largely ignored. Examples are when watching television, looking at a computer screen, reading, talking to someone. There is another kind of vision, peripheral vision, which takes in the whole panorama of what is happening in front of us and around us.

These two types of vision use different light receptors in the retina and different neural pathways in the brain. Using peripheral vision produces certain physiological changes, for example, a shift in breathing from shallow high breathing to breathing lower in the chest, a relaxation of face and jaw muscles and perhaps a sensation of

warmth in the hands. Those who normally experience an internal dialogue may notice a quietening or silencing. Foveal vision seems to be associated with arousal of the sympathetic nervous system [81]while peripheral vision is associated with parasympathetic arousal [82] many older cultures have been aware of and have used peripheral vision and used in as a means for achieving useful states. [83]

Thus a close parallel is suggested between the concentrated narrow focus of secondary processes and the more global intuitive way of primary process thinking. Several applications for the use of peripheral vision are suggested for use in classrooms where deeper learning and creativity are the goal. Students' awareness can be raised and developed as to the differences and results of both types of vision. Activities can be used which develop this type of seeing and sensual awareness, which might be fruitful when working in areas or leading into areas where individual and creative responses are sought. Taking into consideration the beneficial states triggered in the organism by moving into peripheral vision mode, short activities can be developed for use at different stages of a lesson to calm and centre students in preparation for some other activity[84].

6.4. Approaches to education which acknowledge the existence of preconscious learning and primary and secondary processes

6.4.1. Suggestopedia

Developed by Lozanov (1978) Suggestopedia, evolved from the observation of how some people[85] seem able to absorb and assimilate large quantities of information

---

[81] That part of the involuntary or autonomic nervous system associated with activity, adrenaline and stress

[82] The part of the nervous system associated with relaxation, calmness and healing.

[83] In hunter –gatherer cultures peripheral vision allows the hunter to perceive movements of the prey without having to move and thus give away their presence. Peripheral vision is also used in the martial arts where it allows one to be aware of any movement the opponent makes, for example with the hands while maintaining a vigilant eye as to what the rest of the body is doing .

[84] For some examples of short activities which raise awareness of peripheral vision and which might lead to creative outcomes, and others suitable for use as opening, short break, or rounding off activities in classrooms, see appendix 24. It should be borne in mind that activities like these serve a multiple purpose in foreign language classrooms, for apart from the responses which may be triggered by the activities themselves, they also provide listening practice and consolidate and enrich vocabulary.

[85] Lozanov 's Suggestopedia apparently grew out of an interest in the mental feats of memory of the Indian Brahmans who were able to commit to memory and recite the Rig Vedas. In the pursuit of how such prodigious memories could be developed, and realising that the average mind has resources far beyond what is considered normal, he set about experimenting with different ideas including hypnotism and suggestion and came to see the importance of music in creating the necessary mind states conducive to the absorption of new materials. In Indian culture the relaxation state which permitted the learning of vast quantities of material was induced by breathing techniques. These latter considered less acceptable

relatively effortlessly. This led to an approach to teaching that incorporated various elements designed to tap into processes along the primary –secondary process continuum, a key factor of which is the use of music.

The idea and advantages of using music as an aid to creating relaxed yet productive mind states is one that has been recognised for many years[86]. While music of various types can be successfully used in classroom learning situations, baroque and romantic period can be particularly fruitful. Largo and adagio movements with a beat per second paces the brain into a slower frequency alpha range of 7-11 per second. More specifically other types of music have been experimented with to explore the possibilities of generating more creative responses. Hiew 2000[87] interested in the links between science and intuition developed a series of experiments to measure creative and divergent responses in students after listening to a particular type of recorded music "Hemi-Sync", which was designed to induce mental states of deep relaxation. Results seemed to show that participants experienced states of relaxation while listening where they thought about matters far removed from the actual physical and auditory situation. After listening results produced more divergence than usual as noted through the use Guilford creativity tests. In addition to the Guilford tests participants were asked to draw a doodle to represent what they were thinking about while listening to the tape, and these were rated in terms of the degree of divergence from a single theme.

While it is clearly of value to look in more depth at the effects of specific types of music on generating creative responses in learners, teachers and learners can experiment and note responses to different types of music used in the classroom with the aim of producing relaxed states and personal imagery. Classical music, quiet jazz compositions, new age and environmental music can also be experimented with. In our experience with guided visualisations students often say that the imagery generated for them has been influenced to a considerable extent by the music used to accompany the activity[88]. It is therefore worth trying different variations using and noting the different responses with different music.

---

to western European cultures, was replaced by music , especially Baroque, classical and romantic music, which with their harmonic patterns seem to help the brain to relax and develop receptivity to new experiences. It is interesting to note however that there are some educators at the present time who believe and therefore use successfully with their students, simple deep breathing techniques designed to put students into relaxed yet alert mental states in preparation for some classroom activities.

86 Cultures like Sufi, used the power of sound for curing illnesses. It is known that pleasant sound stimuli can trigger instinctive muscular responses in the human body which often beyond conscious perception. The therapeutical benefits of music continue to be explored for dealing with health problems like stress, insomnia and depression.

87 Hiew, Electronic Source<<http://www.hemi-syncsource.bigstep.com/generic.html.

88 With the guided visualisation 'Journey', (Appendix 5) various and varied responses are usually triggered, but when music in which sounds of water are incorporated are used, feedback responses almost inevitably centre around situations where water is present, for example a waterfall, the sea, underwater, rivers, etc.,

Suggestion, of course goes on continually in all classrooms, and students take in far more information than the conscious mind is aware of. This includes for example, information about teachers' attitudes and beliefs, thus the implications for teaching are that this facility may be tapped into and used for the teaching of new information in the classroom.

6.4.1.1. STAGES IN SUGGESTOPEDIA

There are three stages in suggestopedia:

1.Decoding 2. Concerts 3. Activation.

These stages might be viewed as approximately corresponding to three components of learning; input, synthesis and output which are interwoven throughout the learning process. Lozanov's model is presented sequentially, and is applied to the teaching of languages in following way.

1. In the initial *decoding* phase the material to be taught is presented initially in a global way with a light touch, perhaps using humour or dramatising the situation. The objective being that learners are given an opportunity to possibly guess the meaning of a word or concept within the context. At this stage they are not expected to fix it in the memory. But rather that they become vaguely familiar with the new language. This echoes the concept of gestalt where we fix not on specific details, but take in a global overall impression. The claim of suggestopedia is that if learners are exposed initially in this way to new material when they later come to study it in more detail it already has the ring of the familiar to it, and thus is easier to assimilate

2. The *concert* stage is intended to allow learners to synthesise the new information. In this phase the teacher reads a story which contains the key concepts or the most essential information. The story reading is accompanied by music, matching the reading to the rhythms and emotional qualities of the music. The aim is for the speaker's voice to interweave with and almost be an instrument as if it were part of the orchestra. It is at this stage that the new material becomes absorbed in to the long-term memory. Music plays an integral part in the process. It has been suggested that as the human brain processes linguistic information in one part of the brain, whilst music is processed in a different part, harmonising the two may generate feelings of relaxation and possibly euphoria which can lower the barriers to receiving new information. We learn and create best when the whole personality is focussed on one pleasant activity. It is claimed that the

use of music helps the storage of new information[89], just below the surface of the consciousness, but that only a little additional activity will bring it back to surface. Lozanov claimed that learning done in this way is not easily forgotten, and that if it does seem forgotten, relearning is easy.

3. The *activation* stage is where opportunities are provided for the new language to be practised using a variety of different activities designed to help assimilation of the new language and shift it into long term memory where it can be consolidated with already learnt language.

The classic form of suggestopedia which can be carried out when classes are small and the conditions far from what most educational systems can provide (for example, comfortable armchairs and pleasant surroundings) for learners has been one reason why suggestopedia has seemed an unpractical approach. There are however many ways[90] of incorporating the main elements of suggestopedia into teaching situations which cannot meet with such demanding requirements.

6.4.2. Other approaches to teaching which draw on primary and secondary processes.

Attempts to undo or rectify the repressive effects of many educational processes has resulted in a variety of approaches to teaching. Such approaches include *expanded, integrated* and *accelerated learning.* All involve actively accessing and applying resources of both brain hemispheres while accessing a fuller spectrum of brain frequency functions. Kline's (1998) concept of integrative teaching (for example synthesises elements from Lozanov's Suggestopedia, developing and modifying it to specific educational teaching needs focusing on primary school teaching.

The rationale in adopting such processes works towards the goal of liberating and developing creativity and imagination, elements which are so often ignored in most educational processes. The essence of approaches like these is the belief that people can learn with greater depth and understanding and much faster than ever thought possible if the conditions are right. Acting on this belief one can accomplish surprising results. Rather than a methodology, approaches like these encapsulate a philosophy

[89] Anecdotal evidence supports this theory. In our own experience students claim that words and structures which they have learnt embedded in songs stays with them almost indefinitely, being able to remember years later the words of a song used in a classroom activity.

[90] For a set of specific materials which embody the principles of suggestopedia, yet without the need for special classrooms or facilities see Appendix 17

in acknowledging the infinite variety of ways to teach, so long as the general principles are understood.

Accessing these types of optimal learning states where transmission of information is dealt with and absorbed in less conscious ways has several important implications for teaching. (Hooper Hansen 1998[91])

- Rather than a tight focus on a limited area of material to be taught and learnt, exposure to large amounts of target information is required, this allows the mind to do its own analysis. In addition a distraction from conscious awareness from target material is suggested which might be achieved by experiential work and stories.
- A relaxed, informal, non hierarchical, non-competitive classroom environment
- Teacher facilitation must be emotionally aware and free from elements like sarcasm, authoritarianism, use of disempowering language and so on.

6.5. Implications and applications for creative teaching

Demands for 100 per cent attention on the matter in hand, contrary to expectations, do not result in better assimilation and retention of new material. Rather providing opportunities for different levels of intensity in learning is more likely to result in efficient learning. This may be achieved by making time for the mind to allow to absorb information through indirect means and also in allowing learners changes in pace of learning and recourse to activities which require different concentration levels.

Creating access to primary consciousness processes can facilitate learning. In the case of foreign language teaching it can be used for the presentation and follow up work on new structures or vocabulary as well as in areas which may be seen as requiring more individual, imaginative and personal responses. While these areas seem to be given little importance in most classrooms it is suggested that paying attention to and providing opportunities for students to alternate between primary and secondary process modes of thought can be advantageous in many ways even if they do not form the staple classroom diet. Providing even short periods of time

[91] Conference on 'Humanising Language Teaching' held at El Molino, Huelva, September 1999.

out from D-mode thinking may well result in disproportionately positive results[92]. For example, relaxation helps in the learning of new material and insights may be gained which facilitate retention and consolidation of material.

6.5.1. Guided visualisations

Guided imagery or visualisations access both primary and secondary process thinking[93], but while guided imagery exercises may be construed by some as a type of escapism from the classroom, having little to do with the subject matter which has to be taught to students, various writers have shown how far from being a distraction leading students away from the content of the lesson, such activities can help to pave the way for a better understanding of the subject matter.

Learning facilitators have demonstrated how guided visualisations or imagery can be used to facilitate and enrich learning in a wide spectrum of subject areas (Gordon 1995, Houston 1982, Murdock 1987) By allowing each individual to draw on their own personal imagery we are allowing a mingling of primary and secondary processing, allowing points of contact between the external impositions of the subject matter and the internal experiences of the learner and in all probability making the learning process more effective, personally meaningful and creative.

6.5.2. Double inductions

One interesting technique which is aimed at specifically addressing the interplay between primary and secondary thinking processes involves having students listen to a double induction. A double induction is where two voices are speaking at the same time[94]. As it is very hard to maintain concentration on either one alone as the

---

92 We have often observed how in traditional conference settings, students required to sit and listen to one speaker after another reading or speaking aloud their presentation , seem to be devoting their interest and concentration to the speaker. When a different form of presentation is given, in one particular case, the speaker electing to present his material in a way which broke with tradition, producing a musical instrument and accompanying himself as he introduced the content of his presentation in song, how the whole assembly seemed charged with new energy and smiling faces. Informal conversations later with some participants at the conference session showed that much of the content had been retained by the students while many confessed to hardly being able to remember anything from the non stop verbal presentations.

93 We have looked at this area in Part 2, Creativity and Imagery, in this section

94 Two specific examples of double inductions are given in Appendix 7, together with some ways in which they can be organised in the classroom.

conscious mind becomes overloaded and mildly confused. This in fact is the intention of the activity, for soon the conscious mind will give up the effort of trying to make sense of everything it receives, then the non conscious mind takes over the receptive process and selects the meanings which are most important to the individual. The effects of this type of activity can be extremely rewarding. Clearly activities like these need to be carried out in teaching situations where there is trust and confidence between teachers and students. They are perhaps most useful when students have come to appreciate the benefits of relaxed yet alert states for learning. They can be used as a means of building self esteem, and help learners to recognise their own learning abilities and to build on them. In addition bearing in mind the precepts of preconscious learning they also suggest interesting vehicles for an initial subliminal presentation of new material. They are also particularly useful, as we have found in our own experience, at the end of short intensive courses with adult learners. They serve as a subtle way of building confidence and giving recognition to what they have achieved and are capable of achieving in the future and as such provide an excellent way of rounding off such courses.

6.5.3. Experiments with materials not explicitly dealt with in the classroom: Quotations and visual designs

In an interesting ongoing classroom experiment we have carried out which complies with the concept of providing materials which are not necessarily dealt with in explicitly in the classroom, interesting outcomes have resulted. Over the duration of one four month modular course, a pre-service teacher training course on classroom management, at the beginning of most lessons we put up on an overhead projector for a minute or two only, a quotation. These quotations[95] were drawn from a variety of sources and were not necessarily directly related to matters dealt with on the course. In addition from time to time other materials were projected for a few minutes for example, a design or a drawing. At the beginning of the course we explained to students that these materials were rather different from the other material we would be dealing with in class. We explained that we would not necessarily be discussing them in class, nor that they need necessarily deal with them in any specific way themselves, if at all. They did not for example need to copy them down unless they wanted to, and decisions as to what their relevance, if any, might be was left to the discretion of the students themselves.

[95] Examples of these quotations and other materials used with the same purpose appear in Appendix 17.

As we had emphasised that the material would not be dealt with specifically in class, we maintained this attitude. However, these students had been asked to keep a learning journal throughout the duration of the course and we were surprised to note to what extent these quotations and designs had been picked up on in very personal ways by students in their journals. Some students used them as an ongoing entry in their journals, reflecting on and adding their own interpretations in relation to their own experiences. Some added their own selection of quotations drawn from other sources. Some perceived links and interconnections with other areas, including their own lives, as well as with teaching and learning.

During a lapse in our practice of putting up quotations, students commented in their journals to this effect, speculating as to why and expressing disappointment that the quotes had stopped appearing. On one occasion when a design was put up, students seemed at first bemused, but later asked for a copy to include in their journals, later commenting on what the design had suggested to them.

6.5.3.1. OBSERVATIONS

Given the brief amount of time (quotes were usually shown on the overhead projector for a minute or two, and occasionally written up on the blackboard where they stayed for a similarly brief period of time) that this element was allocated in class, we were surprised at the considerable amount of attention that students paid to it in their journals. It did seem to demonstrate that providing subtle input which is not dealt with in any direct way nor demands responses from students, can in fact play an important role in the thought processes of students. In the drawing of links and the creating of personal metaphors, this type of exercise has much potential in encouraging individual thinking and creative responses. In the area of teacher training where this ongoing exercise was used, it provided a balance between the content or subject matter of the course, allowing for the interplay of primary and secondary thought processes. In addition it acknowledges and values the personal experience and individuality that each person brings with them to any learning situation. As such it provides an interesting point of reflection for the perceived importance that students give to such materials and deserves further exploration. In addition other possibilities are suggested, for example students could be asked to provide quotations and other materials which could be used in similar ways for brief exposure in the classroom. We have commented elsewhere on the advantages of using short activities in the classroom, for example as warmers, short breaks, state-changers like re-engerisers, relaxing activities, and for rounding off a lesson, while we have tended to use quotations at the beginning of a session, they could

equally well be used at different stages of a lesson. Whether they would have the same effect as showing at the beginning of a lesson when concentration tends to be sharper and students are perhaps most attentive remains to be seen.

6.6. Music and song in the foreign language classroom

We have already looked at some ways in which music can be used to create an atmosphere which is conducive to learning, helping to produce relaxed states or in defocusing attention so that primary thinking and learning processes may more readily occur. In addition using music as the focus of the lesson as a means of presenting and practising language is often seen as a useful alternative to course book or other types of presentation. Most teachers who use music for all or any of these purposes will recognise that music is popular with students. We are all aware of the effects[96] music can have on us in our lives, yet music seems to be rationed in classrooms and used only from time to time as if it were some kind of special treat. Bearing in mind the powerful effect of music and especially the way songs and music have the ability to lock vocabulary and structures into the minds of learners, it is perhaps surprising that music and song is not used more often. Indeed the different ways in which music and song can be used in the classroom are so diverse that the possibilities seem almost endless and can be adapted to almost any teaching situation. Murphey (1993) has pointed out that music in the classroom can be used for all the purposes that we use it for in our lives outside of classrooms in addition to activities specifically aimed at practising language. Being struck by how young children so easily memorise whole songs and fingerplays from an early age and how the words seem to stay with them Adkins (1997) describes how the use of songs evolved in her teaching of Spanish to teenage American students and became so popular with the students and so successful as learning tools that it lead on to many innovative approaches[97] which linked language learning to songs.

---

[96] We have often observed how music, just as it does in life outside of teaching and learning situations has the power to lift spirits in the classroom .We are reminded of this again and again and nowhere is the effect more marked than at the end of a long day of new input in intensive courses for adults , when course participants start to pack up their things and are already finished for the day, when a song which had been played earlier in the day is put on for them to leave the classroom by, and suddenly they all sit down again and sing along with the tape.

[97] Adkins (1997) describes how being aware that her students were singing songs from the 60s, 70s and 80s, and that Karaoke machines were available on the market opened new possibilities leading her and her students to write their own song lyrics. One example was in taking the verb to go,'ir' in Spanish, and writing new words to the tune of 'She loves you' by the Beatles, which the students then eagerly performed for the rest of the class. Adkins notes that she was astonished and thrilled at the interest and participation of her students.

Why is it that music and song seems to be such a fruitful vehicle for language learning? Hart (1983) summarises the inner workings of the human brain to explain how learning happens, and suggests that thinking and learning can be thought of as throwing a great number of switches to one position or another. The number of neurons involved in the process could be as high as 30 billion although science as yet is unable to confirm this what is known however is that the number of neurons drawn into the action is staggeringly large. The possible pathways and connections set up between these networking neurons could well soar up into the trillions. In more than 90 per cent of people, the cerebral areas responsible for spoken and written language and intellectual functions are dominant in the left hemisphere of the cerebrum, those that govern non-verbal abilities such as abstract thought, visuospatial and rhythmic patterning are dominant in the right hemisphere. Yet the domination is far from complete, neither side being uninvolved in those abilities that predominate on the other. Interaction between the two hemispheres is vital for normal brain functioning and this is done by a bridge called the corpus callosum which links the two hemispheres and which consists of 200 million or more nerve fibres which carry information both ways. Therefore the brain acts as an elaborate system of interconnected parts and operates by functioning simultaneously along many complex paths.

The principle of linear processing is essentially that one limited unit of thought follows another unit in a logical more or less one-dimensional relationship. The implications of this principle for education is that students' attention should be guided from one focus to the next focus which is closely related to it. Yet bearing in mind what we now know about the functions of the brain the whole complex and amazing process bears no relationship to linear processing at all. Expecting students to react in the way educational bureaucracy often expects them to can be counter-productive and rather than facilitate learning, can inhibit it.

It has been suggested that the left hemisphere of the brain is logical and sequential because it is so involved in language however, language is not always so logical. It is often full of irrational twists and turns that at times it seems anything but logical. Hart (1983) has suggested that listening to speech is no more sequential than listening to music. Gardner (1999) has drawn attention to the fact that there are many structural parallels between 'musical' and 'linguistic' intelligence. The two hemispheres of the brain probably work in the same way but have different assignments. Campbell (1992) has claimed that music has a way of connecting the two brain hemispheres by using the left for linguistic matters and the right for distinguishing musical intonations through consistent integration by the corpus callosum. While insisting that distinctions between the

functions of the two brain hemispheres are not clear cut, it is known that the more connections that can be made in the brain, the more integrated that experience will be within the memory. It follows then that such experiences are more memorable and retrievable because the memory imprint is linked to a multitude of different personal associations. Rose (1985) suggests that the key to the long-term storage of material in the memory lies in 'rehearsal'. If material is not rehearsed it is soon lost out of the short term memory and does not even enter the long term memory.

Some techniques which facilitate the movement of material from short to long term memory include reading aloud, dramatising short sections of text in groups, recording new vocabulary in picture form, actively involving students in organising and categorising of new material or material for revision, and presenting lessons and materials that are sometimes, if not always, colourful and bizarre. Music adds colour and life to a lesson and songs in particular seem to work well in language learning because the language and vocabulary of the song is chunked or stored together with rhythm and rhyme[98].

Music can trigger the relaxed 'alpha' states of awareness mentioned earlier in this section, during which the mind is able to absorb and assimilate material more readily and more quickly than in the more normal 'beta' state most often required of learners in classrooms. Brainwave patterns can be influenced and moderated by sound, especially music and vibrational patterns which incorporate rhythm or beats. In a single musical experience millions of neurons are activated and it is through this activation that learning takes place, thus using music as a classroom tool can unlock the doors of learning to other content areas.

According to research psychologist Rauscher (1995) links between music and spatial reasoning have been found. By studying neural firing patterns through a computer generated model of the brain a link was discovered between music and the spatial reasoning that they were mapping. As an extension of this studying music appears to rely on the same neural firing patterns as spatial reasoning. Research was carried out to see whether studying music could enhance spatial reasoning. Pre- school

[98] Many English course books include songs, some especially written for EFL, others taken from the popular song market. Sometimes these are incorporated into the teaching units, others include them in the additional activities section of the book. Sometimes the focus is specifically on the study of certain structures or vocabulary in the song lyrics, and sometimes the emphasis is on listening to consolidate previously taught material in a relaxing and enjoyable way. Carolyn Graham's (1978,1993) series uses music in a different way which focuses on rhythmic chants, which while helping students to learn language which is chunked to strong rhythmic beats also helps later in the production of elements of spoken English concentrating particularly on elements like linking, rhythm and intonation.

children were given keyboard lessons, daily singing lessons and supervised practice periods and when spatial reasoning skills were tested at various intervals during the course an increase accuracy of 46% was reported. This particular researcher suggests that this may be translated into better mathematical skills, as these children grow older. In addition spatial reasoning is a vital element in areas like architecture, engineering and navigation. It may be that using music in classrooms will have wider repercussions than we may be aware of.

Recent years has seen an increasing interest in brain research and its connection to learning and a growing awareness that using strategies that parallel brain processing can help to facilitate learning. But somehow this has not filtered down to areas where such awareness is most needed, in state education systems. In emphasising brain based approaches to teaching and learning we are recognising the brain's ability to relate, access and connect to vast amounts of information already stored in memory and experience. Information that does not come neatly categorised into compartments but which reveals underlying relationships and interconnections and patterns common to all areas of education, science, humanities and arts. As such it reflects a constructivist view of education.

In a complex thread of intertwined factors it seems that music may be highly beneficial in classrooms from the point of view of the increased possibilities for learning that it generates and also for its effect in creating classroom environments which are enjoyable, fun and pleasant places to be in, elements bearing on affective aspects of learning.

6.7. The element of the unexpected

Within the context of what still seem to be called 'traditional classrooms' (for their focus on the subject matter to be taught with scant attention being paid to the learner and the teaching and learning processes) many of the aspects we have discussed in this section may rarely appear. Yet even in classrooms which are learner friendly and where teachers have the concerns of the students at heart, the element of surprise is a useful one to bear in mind. Surprise elements can motivate and stimulate learners' imaginations and if we are interested in tapping and encouraging the creativity of students we should consider the benefits of the unexpected.

Teachers may find that it pays off to introduce unexpected elements into lessons from time to time. In our own experience we have observed the powerful effects of breaking the pattern of students' expectations by introducing an unexpected (to

the particular group of students) activity[99], as reflected by students' comments in their learning journals[100]. Clearly much depends on the reactions of the students to pattern breaking in the classroom and in general to their expectations of teaching and learning situations based on their previous experience. Some may find it difficult to accept for a variety of reasons[101], others who have perhaps grown to enjoy and expect the unexpected from time to time will eagerly participate, open to new learning experiences and the insights that these may bring. Moskowitz (1995-96) describes the ploy of coming into class in the guise of a certain character[102] in order to teach and communicate effectively certain aspects of the target language or culture. Students used adjectives like, stimulating, exciting, educational and amusing to describe the experience.

For many teachers this may seem well beyond the bounds of the 'do-able', yet while introducing surprise activities in classes may stimulate the responses and imagination of learners it should not be forgotten that teachers who are prepared to include such elements in their classes from time to time will also be throwing themselves into new learning situations. Until we try out an unaccustomed activity (that is unaccustomed for both teachers and learners) we do not know exactly how it will

---

99 In more or less traditional teaching situations, students' perceptions of unexpected or surprising activities may not of course coincide with those used to more innovative approaches. We have noted how students reacted with curiosity and a willingness to go along with activities that they initially found a little strange or incongruent within a classroom environment. Later in their learning journals some expressed their thoughts on the activity and its effects on them. Several examples will illustrate the type of activity we refer to here: 1) Breathing Colour (carried out with groups of students in the final year of a degree course on a pre-service teacher training module) 2) Your Internal Weather Report (carried out with students at various stages of a degree course in English Studies, and which involves listening and then contrary to their expectations, drawing a response. 3) What kind of person are you? (A reflective self questioning activity which does not immediately reveal its connections with the subject in hand, and which we have used with students at various levels and especially with students on preservice teacher training modules. These activities are included in Appendix 24

100 Comments from students (4th year students of English Philology degree on a preservice teacher training course) on the activity "breathing colour" "As for today's experience it has been a relaxing one – a complete surprise, I enjoyed it very much and I'd like to use it some day with my pupils". "In relation to the activity we have done today, I particularly liked it because after a hard day of classes I felt very relaxed. My tension has been released" "An example of very useful creative activity, because it is shocking for the student as it is not a very common one". Note that Spanish speakers of English have a tendency to use 'shocking' for 'surprising'. While 'shocking' has negative connotations in English and in Spanish it is our impression that this student has used it without negative connotations because of the positive reference in the first part of the sentence.

101 For some, if the activity is not seen as being closely and directly related to the subject matter in hand, and does not correspond with what they expect they may find it hard to participate and switch off. It can be useful to give a rationale for the occasional surprise activity to those who do not see their place in the classroom. For example how doing an activity not directly related to the matter in hand can sometimes, like a metaphor, shed new light on a subject; how a change of activity can revive flagging concentration and make it easier to tackle some more intensive study afterwards.

102 The characters mentioned were a fortune-teller to teach future tense, a certain American judge to teach ESL students about the American judicial system and a teacher reporter interviewing students about their lives.

go or how students will respond. But it is when we are prepared to experiment from time to time that we gain insights, new possibilities are suggested and we continue to add to our repertoire and in the process continue to evolve as teachers. We also become more creative in our attitude to teaching and learning. Of course not all students will react positively to an activity or technique that the teacher is attracted to and that other students find interesting and motivating. This does not necessarily mean that it should be abandoned after the first attempt, nor does it mean that we should continue to use activities or techniques which after repeated attempts do not work or could be replaced by more effective procedures. In many teaching situations however this is exactly what happens and not when teachers are trying to be innovative but in the day to day routine of classroom teaching. It is always worth trying an activity or a variation of it a few times even it does not initially seem as successful as we may have expected. We should bear in mind that not all our students are the same and therefore it is inevitable that certain activities will appeal more to some students than others. It is also worth bearing in mind that the same type of activity will not always come over to students in the same way. Teachers' mental and physical states also influence the way an activity is put over and later evaluated. Sometimes teachers' own perceptions of how an activity has been received by students is coloured by the response of just a few students. If students have been brought up on a diet of traditional classroom teaching we cannot expect everyone to feel instantly comfortable with techniques which seem strange and initially irrelevant to them. However if we always feed them with the same diet they are unlikely to acquire new tastes. We are not suggesting that the classroom be a place of continual surprises, rather that within a good encouraging and learner friendly environment the unexpected might judiciously and occasionally season the tried and tested.

6.8. Summary

In this section we have looked at various areas which we consider to be relevant to effective teaching and learning practices. Most of them have specifically focused on the teaching and learning of languages. However we have also implied that many of these elements could well be employed in other subject areas of teaching. We have also made reference to use of some of these elements in pre-service teacher training courses. In those contexts the implications are multi-layered. While they have been included to aid in the assimilation of material for the trainees themselves, they have also allowed trainees to experience them with the idea of incorporating them later into their future teaching situations.

We have looked principally at the implications of taking into account thought processes which are not focused exclusively on deliberate modes of thinking in areas of teaching and learning. While a total focus on the subject matter in hand might seem to be the most efficient way of ensuring assimilation, an ongoing dialogue between conscious and non conscious thought modes seems to better facilitate the learning process. This in fact is how we assimilate and deal with input in our lives outside of formal learning situations.

Some approaches to teaching and learning drawn on these principles, for example, suggestopedia and accelerated learning. Yet such approaches are often seen as representing fringe views and as such tend to be regarded as only suitable for specialised teaching situations. For example, small groups of adult learners) and the benefits for the facilitation of learning are set aside in favour of a focus on the subject or course content. Those involved in education continually complain that there is no time to devote to anything but the material to be taught. Yet it may be that only slight modifications in teaching procedures which allow for some time for interplay between primary and secondary thought processes to be interwoven into classroom learning environments, will make it easier for students to learn, retain and be able to integrate new to existing knowledge in meaningful ways. We should not be misled into thinking that music or songs be reserved for special occasions or for certain ages or levels of students. In our own experience students with from young to old, with those with low levels of English to those with advanced levels, with those who are not accustomed to music in the classroom and seeing learning and pleasure as having any connections to those accustomed to the delights of music in the classroom, music always works in creating a learning environment where people tend to be more relaxed and learning is easier and more effective. Similarly it is worth introducing surprising or unexpected activities into lessons from time for the insight and experience they provide for both teachers and learners

In considering the interplay between primary and secondary process modes of thought we only need to reflect that in our daily lives we constantly draw on, and indeed rely on for our survival, areas of previously stored non-conscious sources of knowledge and experience. In addition we are constantly absorbing information about our environment much of which is perceived subliminally or without our conscious awareness. In most teaching and learning situations it is assumed that for learning to happen one must maintain high levels of concentration in students at all costs. Achieving this is rather difficult, but in fact it seems that brain states which reflect a high degree of alert and focus on the outside world are less efficient than might be supposed. We have suggested various approaches and techniques which emphasis the importance of alert yet relaxed states of mind and ways of working towards achieving this in classrooms.

Creative processes do not usually happen in states of high alert and when the conscious mind is focused on the outside world. Most creative processes are seen as going through certain stages, those described by Wallas as preparation, incubation, illumination or inspiration, and verification or elaboration, have come to be widely accepted. It has been suggested that creative individuals are better able to alternate between primary and secondary process modes of thought than uncreative people. Because the primary process is associative it facilitates the discovery of new combinations of mental elements a key element in most creative processes. Secondary process states are later involved in the elaboration of the creative outcome. It has been suggested that less creative people or people who believe themselves not to be creative, are stuck at one point on the primary process – secondary process continuum (Martindale 1998) and are unable to come up with creative ideas.

Thus for teaching and learning to move towards more creative outcomes, primary process and secondary process modes need to be recognised and drawn on. Some learners unaccustomed to approaches which call upon them to move in and out of the conscious non-conscious continuum may show resistance. This may be for a variety of reasons, including the fact that their previous educational experiences may have taught them to leave this part of themselves out of the classroom.

For teachers, creative growth and evolution is more likely to occur in those who adopt an open and reflective attitude towards their teaching. Being prepared to try out new ideas, activities and techniques reflecting on what has happened in the classroom, collecting feedback, engaging in classroom research, etc, are some ways which provide the material on which the unconscious mind of the teacher can get to work in order to keep a fresh, open minded and evolving approach to teaching and learning

As for the learners, apart from the fact that learning may be more efficient and meaningful if more relaxed learning conditions and activities are included into the classroom diet, we may also be moving in some small way towards allowing and encouraging creativity in learners. Such creativity might reflect beneficially on their language learning

> Learning a foreign language is a creative process. When we use techniques to stimulate creativity or activate the imagination, we simultaneously develop mental aptitudes and processes needed in language learning (Dufeu 1994: 21).

From a broader point of view, we have suggested that taking into account elements such as those we have discussed here might help to encourage personal creativity, both on the part of teachers and learners, an area that receives little attention in most educational settings.

IV. Creativity in teaching

INTRODUCTION

While all sections of this study revolve around aspects of creativity which we have seen as having important bearing on creativity in general and by implication, on creativity in teaching, this section is central to our study because it narrows the focus down to our research carried out in specific teaching and learning situations and to ways in which we believe teaching and learning can be more dynamic and creative.

We examine the concept of creativity in teaching from the point of view of those who are on the receiving end of teaching, the students, It draws on the findings and responses collected as a result of specific activities designed to explore possible starting points to creative expression in language classrooms. In addition, it explores concepts directly related to the incorporation of creative practices into classroom teaching with the aim of facilitating learning in general and more specifically, language learning,

1. DISCUSSIONS ON CREATIVITY

One obvious way of raising awareness about creativity is to involve students in discussions about it. Being concerned mainly with pre-service teacher training courses and the teaching of English as a Foreign language we are particularly interested in ways of teaching which focus on the processes of teaching and learning as well as the content to be taught. In language teaching it is clearly insufficient to 'just' teach the language. If we do then learners may end up with a body of knowledge 'about' a language which is restricted to limited uses and falls short of what language is, or should be all about, that is a system for communication and expression.

In teacher training courses focused on preparing people to teach a foreign language, a similar parallel applies. We cannot or should not simply teach the content. If we do then we may be in danger of perpetuating systems that focus on the content

and ignore the process. Lecturing or talking about methods and approaches that have been used and can be used is not enough. When people seem unable to experiment and try out 'new' or different techniques in their own classrooms one reason is often because they have never had the chance of experiencing for themselves different ways of doing things, or of seeing teacher trainers being anything but prescriptive. Just as it has been shown that there are people who seem naturally more disposed to experiment and occasionally take risks in life in general than others, so too there are clearly teachers who seem to feel that they have everything sorted out, they 'know' the best way and continue with this 'best' way to the exclusion of all else. They cease to evolve and grow as people and teachers may become blasé and bored with teaching and as a consequence diminish the possibilities of setting off sparks of enthusiasm and intrinsic motivation in their students. We believe that teaching and learning needs to be creative, but what is creative teaching and learning?

1.1. Awareness raising and students' responses

One way we can work towards these understanding and clarifying these concepts is by raising the issue of creativity in classrooms. If it remains hidden in the shadows and never brought to the surface there is the assumption that it is of little relevance and importance in the context. Yet doing so can show that creativity is something which is valued, important and to be considered. Raising these issues on teacher training courses and with people who are teaching or planning to teach can liberate their own feelings on the subject and help them to crystallise their ideas and opinions.

Issues brought to the mental surface in this way, oblige people to think about and to express in some form or another, their ideas. This in itself plants the seeds of awareness and allows them to grow. Once an issue has been given importance or recognition in this way, it may well begin to make its presence felt in students' assignments and comments, even though not directly related, and in our own experience this has happened. Hopefully it will continue to be an issue once these students are actually teaching their own students in what inevitably will be a variety of different situations and contexts.

After discussion and activities around the topic of creativity with 5th Year students[1] of English, concerns about creativity seemed to become more frequent and apparent

[1] These were students in the final year 1998 of a now phased out, five year degree course in English Philology at the University of Jaén, taking an optional subject of Didáctica del Inglés / Teaching of English as a Foreign Language.

in their assignments and in discussions in class and in areas not directly related to the theme. It did in fact seem that raising the subject of creativity had made it much more worthy of further thought and discussion and in fact put it on the agenda of relevant issues. It made it an important and relevant perspective to apply to other areas, to the level of conscious thinking and expression of individual opinions and feelings. In addition raising the issue of creativity and providing opportunities for reflection and discussion on aspects of creativity allows people to crystallise their thoughts, helps them to express their ideas and allows them to compare, exchange and take new ideas and perceptions on board

1.2. Study One

We first raised the issue of creativity with one group of students in the following way:

Students were given a series of statements related to creativity to consider individually and then to discuss with fellow students in pairs or small groups. Whole class feedback was carried out in the form of an informal discussion where people expressed their own opinions or those of their partners or group members and interesting and conflictive areas were discussed. The statements we presented to the students were taken from various sources and represent frequently expressed ideas about creativity.

The statements were:

1. *Being creative means being flexible and open to new possibilities*
2. *Being creative is seeing the same as everyone else but thinking of something different*
3. *Creativity is only found in a few people, like artists or inventors.*
4. *Creativity is the ability to generate novel responses to problems and challenges*
5. *Most people are creative to various extents*
6. *Creativity is skill which can be developed, like any other skill*
7. *Creativity is hampered by a sterile environment that does not feed the senses*
8. *Creativity is hampered by demands for quick production of results*

9. If you believe you are uncreative, that is exactly what you will be.

10. Creativity is important in teaching

11. Creativity is related to 'play'

12. Students should be allowed creative space in their learning

13. Being imaginative is an important ingredient in being creative.

14. Creativity is natural in young children, most of us lose this facility as we grow up.

The students were given the list in class and were given a few minutes to look through them individually noting points that interested them. Then they were invited to work in small groups of three or four exchanging and discussing their ideas and interpretations. Then in an open class discussion an opportunity was provided to air their ideas and opinions on the topic. The discussion revolved around both personal creativity and creativity related to teaching, much being said about the importance of imagination for creativity and there was some debate about the role of creativity in teaching beyond primary levels. A group of twenty-six were later given the following questions to answer for themselves personally and to be handed in anonymously.

1. To me "being creative" means...

2. I am a very imaginative person…
   I have no imagination…

3. I am a creative person…
   I am not a creative person…

4. I say this because...

In questions 1 and 4 students were asked to complete the answer using their own words to define creativity.

In questions 2 and 3 students were asked to tick the alternative which best applied to them.

1.2.1. Findings

Students' answers in response to question 1, 'to me, being creative means':

We have grouped students' responses according to what seems to be the main idea they wished to express. However, many answers are not clear cut and include and overlap with elements mentioned in other categories. The main categories which emerged in response to question one, were as follows:

- Being completely original
- The importance of the imagination
- Personal fulfilment and satisfaction

1.2.1.1. BEING COMPLETELY ORIGINAL.

Responses were as follows:

- Being able to do new things that have not been done before by anyone (C /c)
- That I am able to do something that is totally new (C/ c)
- Being brilliant, original, being able to create new and marvellous things (C/ c)
- To do something in a different way, so that other people consider it as something fresh, new, different, or to create something completely new, to be a genius, being creative is to be 'personal' (C / c)
- To invent new things, paint a picture, write a poem, etc. (C/ c)
- to be original and to do things in an unusual way, trying to use all means that I can (C / c)
- To express ideas or to do things that are not related to anything you may have seen or done, something you have 'invented'(C / c)
- Being able to create, to make original and new things. Creativity also consists in having fresh and unusual ideas and being able to make them real. If it all remains just an idea I wouldn't consider that as a creative act. (C/ c)

1.2.1.2. IMPORTANCE OF IMAGINATION

- Using the imagination when you are going to write something, for example. Even in real life it is necessary to use creativity in many situations in

order to solve problems, to explain something and in general to live more easily (c)

- To use the imagination a lot, always being original, innovator, not repetitive, to your show your art to express everything (c)
- To have imagination and special and original ideas (C/ c)
- To have imagination and to show it in a poem, a picture, an invention (C/ c) imagination
- To be able to make the projects, ideas, wishes in your mind come true, to carry them out and to feel you really can create things of your own without the help of external factors like books, models, TV. The touchstone of creativity, for me, lies upon being faced with one's imagination
- If he or she is able to perform what he or she wants to and in an acceptable, original manner, He / she can call themselves creative people. (C/c)
- Being original and productive as far as my imagination allows me

1.2.1.3. PERSONAL FULFILMENT AND SATISFACTION

- To do something that surprises you and fills your soul with new feelings. (c)
- Means being capable of being happy and doing what you want to in that moment, it means to have good ideas and share them with other people. (c)
- To be able to make something by myself, to make something that belongs to me because it comes from my inner mind and my heart. In those things I'm able to put my experience and feelings (C/c)
- To have ideas, to try and change established things and to enjoy doing it. Being creative means to be yourself (C/ c)
- To have ideas that help you to do original things in your job, your life (c)
- To be able to develop and transform ordinary things into new ones, worthy of admiration (C or c)
- Having the capacity for creating new situations in my thoughts (c)

- To have a good idea for each situation (c)
- To create something, being able to take something out of my head and write it down, express it outside of my mind. Imagine what you have to do and do it. (C or c)
- To do away with daily routine, to stamp your personality in everything you are engaged in, neither to follow the general tendencies just for their own sake (fashion, tastes) nor to adapting to them but to adapt them to yourself (c)
- To decorate the world with my own colours, to enjoy imagining what other people can not imagine, to translate into new materials and forms, old things, to use all my energy as a human being (C / c)
- Having good ideas and also original ones to make things/life/ work Éfunny, more interesting (C / c)

1.2.2. Observations

After each response above 'C' or 'c' or a combination of both, appears in brackets. Writers on creativity usually differentiate between two orders of creativity. Creativity with capital 'C 'and creativity with a small 'c'. We might think of the creative genius of Beethoven or Mozart on one hand and the creativity of lesser mortals in coming up with a solution to some everyday situation on the other. For example in designing a special birthday card for someone, the card may be clever and original and for the person who receives it, something special, original and personally creative. English Psychologist, Margaret Boden has described these two orders of creativity as 'historical creativity', (creativity with a capital C), which produces ideas new to all of humanity, and 'personal creativity', (creativity with small 'c') which is the relatively common type of creativity with in the reach of ordinary mortals.

In this collection of responses students have done the same, not in any conscious way, nor were they asked to consider creativity in this way. Rather the distinctions emerge through their own ideas and ways of expressing them. Generally they have not made specific distinctions, instead they have expressed the two levels of creativity through the words they have chosen and in the association of elements and experiences in their own lives. Some clearly have historical creativity in mind, yet they seem able to encompass it within the bounds of possibility, not restricting or limiting the production of something truly original to the rare geniuses who appear

from time to time. Many of their responses included the concept of both types of creativity, seeing it as something achievable by ordinary mortals.

Many students particularly mentioned the role of imagination in creative processes. Some took the idea further suggesting that imagination in itself is not enough, that to be truly creative, imagination and ideas are required but those ideas have to be transformed into an end product of some kind. Others implied the necessity for an audience of some kind ('the product needs to be admired by people'), underlining the feeling that the idea has to be given form 'outside ' of the mind of the creator. Both of these elements, the role of the imagination and the necessity for external recognition are usually included in descriptions of creativity. (See for example Dilts, Epstein & Dilts 1991, Herrmann 1989, Romo 1997, Wallas 1926).

The third and largest group of responses which emerged overlaps the other two groups, yet the emphasis seems overwhelmingly related to the personal satisfaction and creativity as a way of carving out one's own way of living and interpreting the world. For example "To do away with daily routine, to stamp your personality in everything you do, to decorate the world with my own colours, to enjoy imagining what other people can not imagine" and, "Being creative means to be yourself".

In response to question 2a, "I am / am not a very imaginative person", 20 students considered themselves to be imaginative or very imaginative, 1 student said that 'sometimes' they were imaginative, 1 student overlooked the question and 4 students said they were not imaginative.

In response to question 2b, 19 students said they were creative, 6 students said they were not creative and 1 student answered 'sometimes'.

Question 3 allowed students to back up their responses to question 2a and 2b. Those who did not classify themselves as creative added comments like:

- I have a great imagination but I have never tried to put it to work, therefore I am imaginative but not a creative person.
- I am not able to create things about nothing, things that are only from my imagination, but I would like to.
- I am very rational and I think creativity is something inherent in the person
- It's difficult for me to have creative ideas

Those who considered themselves creative often gave vivid accounts of their experiences. While some had expressed the idea that creativity implies an end

product, nevertheless many saw their creativity as being expressed through their imagination and in the pleasure it gave them in the way it influenced their personal, internal life and how it allowed them to express their uniqueness as individuals. One wrote student wrote,

> I think every person is creative although s/he does not think so. What is difficult is to find the way to locate and use your creativity on yourself. You have to be original, but not original in the sense of not copying something that has been done before, bur original for yourself and the customs you have in your life and your job.

The different definitions of what creativity implies for these students naturally reflect their own personal and differing views. Some claim that all human beings are potentially creative. Some clearly recognise different degrees of creativity, others that look at the close relation between imagination and creativity and the fact that having imagination does not necessarily mean one is creative. Some pointed out the fact of being creative in itself very often seems to bring with it the concept of producing something, some kind of end product which has to be given form outside of the creator's mind.

1.3. Study two

A similar study was carried out with another group of students. This time the students were in their final year of a four-year degree course and had opted for the subject 'Classroom Management' which came within the area of''Didáctica del Inglés', (Teaching of English as a Foreign Language). They were a lively group of male and female students who were keen to participate and take part in discussions on all aspects of the course. At various points in the course the topic of creativity arose, sometimes instigated by the students themselves.

1.3.1. Procedure

To give more students an opportunity to think about, crystallise and put into words their ideas a similar procedure to the one described above was undertaken. This time although general aspects of creativity influenced their answers, the framework for consideration was more closely linked to the teaching and learning situation. Thirty-five students participated and answered the questionnaire.

1.3.2. Questions and findings

In dealing with the responses to this question we have isolated elements which most frequently appeared in students responses.

Question 1

'What does creativity mean to you?'

The main elements to emerge were:

- Being able to create something
- Personal and personality
- Imagination
- Spontaneity
- Innovation
- Originality

While these categories can obviously be associated with creativity in its more general terms, students also mentioned categories which they more closely related to the classroom situation and which seem to reflect the effect on the learner or person on the receiving end of the teaching process if a teacher adopted a creative approach to teaching. These include elements like:

- Making things interesting, different or special.
- Avoidance of boredom, monotony, ordinariness, and the commonplace.

When we look at the frequency with which these elements were mentioned the following results emerge.

Four students, referring to the concept of creativity in life in general mentioned *'being able to create' something.* Four students mentioned *'personality'* and *'personal'* as integral elements. Their responses included the idea of 'putting your personal mark on the things you do' and 'making personal responses', which seem to be referring to a quality a teacher may have or may acquire. One student cited *'spontaneity'* qualified by the ability to react on the spot to situations that arise in the classroom. Three responses included *'innovation'* and *'originality',* doing something *'new'* or *'never seen* or *done before',* was cited by twelve students. Within this group the point was raised that the element of usefulness was important.

One student pointed to the element of risk involved and the spoke of the need for being *'daring'* and *'brave'.*

Imagination was mentioned 12 times. One person saw imagination as a synonym for creativity, others mentioned the need to give space and importance to imagination in the classroom and in life in general. However within the group the most frequently occurring elements were concerned with what students seemed to see as the possible benefits of results of teaching creatively, for example the classroom would be 'less boring' and 'monotonous' less 'commonplace' and 'ordinary'. It would be 'different'; there would be 'variety'. Within this group one student said .to be creative was to make things 'special'.

As we have mentioned above, the first question was aimed at eliciting responses to creativity in life in general and not narrowly focused on teaching, although many, either consciously or unconsciously chose to link it to teaching and learning.

The second part of the questionnaire did ask students to consider creativity related to teaching and learning, by posing question 2, which was divided into two parts as follows:

Question 2

a) What does teaching creatively or creative teaching mean to you?
b) Do you think creativity is important in teaching?

These questions yielded responses more closely focused on teaching creatively than creativity in general, as was our intention. The way in which the questions were framed left students free to express their opinions as they thought best and inevitably produced answers that were not always clear cut and where elements sometimes overlapped. Defining creativity is not easy, and thus this is to be expected, nevertheless these students obviously took pains to express their ideas as clearly as they could.

As in the previous question we have attempted to analyse their responses based on the most frequently occurring words or expressions used to describe or express their beliefs. However, this time we have grouped the elements according to certain criteria, which although students were not asked to focus on it in this way, naturally emerged in their responses.

Three main groups emerged. In addition some other elements appeared which do not fit neatly into the main groups and which have been included in 'other elements'.

a) 'How' the teacher teaches.

b) The perceived effect of the teaching on the learners, seen in terms of benefits and positive aspects for learners.

c) The necessary personal qualities on the part of the teacher.

d) Other elements

a) How the teacher teaches:

Within this category the main elements to emerge were as follows.

The teacher teaches:

- In an 'original way', in a 'different way', in a 'not classical way', 'not exactly following the rules', 'not falling into routine', 'not using the same methods applied over several years'

The teacher uses:

- A variety of techniques (which are 'attractive')
- Uses 'new' methods and techniques
- Uses different resources
- Involves the students in the learning process
- Uses different 'patterns' to explain concepts and aid students' understanding.

b) Perceived effect on learners:

By far the most frequently effect or benefit cited by the majority of students was *'avoidance of boredom for learners'.* Other factors were:

- Learners would be 'motivated'
- Learners' attention would be attracted and more likely to be maintained',
- A desire to learn would be created,
- Learners would be 'stimulated' and 'made to think'.

Several responses suggested that making students think would encourage and develop their ability to think not only within the limitations of the subject being learnt but in the wider sphere of 'real life'.

- Learners would be encouraged to perceive things in different ways.
- Learners would enjoy the learning experience
- Learners would be actively involved in the learning process
- Learners would enjoy the learning experience

c) Necessary personal qualities on the part of the teacher.

Qualities cited were:

- Dynamism
- Spontaneity
- Ability to innovative
- Ability to encourage people
- To be imaginative and use that imagination, and to encourage and develop imagination on the part of learners
- Ability to encourage and develop creativity on the part of learners
- Ability to make learning interesting and attractive

d) Other elements

In addition to the above-mentioned elements, one student saw the creative teacher as an 'artist', forming, moulding and 'creating' people. Another pointed out that the freedom suggested by creative approaches to teaching might sometimes be dangerous. These points we will look at in more depth later in this study.

The third question was also a two-part question, as follows.

Question 3

Have you had teachers who you would describe as 'creative'? What makes you say this? Can you give any specific examples of how creativity was shown in their teaching?

The main categories of response found relating to the first part of the question were as follows:

- Students who claimed they had never had a creative teacher ('It would be 'utopia')
- Students who claimed they couldn't remember any.
- One student who claimed they had had one, but who on reflection had been 'funny' but not 'creative'
- Students who used words like 'a few', 'not many', not 'frequent', 'two or three in my life' to describe the frequency of creative teachers in their learning experiences.

Where students were unable to think of any creative teachers credit was given to teachers who were not necessarily creative and who taught in traditional ways, but who were motivating because of their professional attitude and because they were 'good' people.

Most students commented that the majority of teachers in their experience used 'traditional' methods. Even where they were able to remember a teacher or teachers, who they would describe as creative, and to give an example of how creativity was manifested in the teaching, they still held strongly onto this claim. They sometimes gave examples of elements which they thought could have been introduced and which would, in their opinion, have made the teaching 'more creative'. These included elements like, "they could have changed the usual situation", "they could have made more association between teaching and 'real' life", or they suggested teachers could have let them see videos[2] or write to English penfriends.

Out of those who were able to give examples of 'creative' teaching, some students mentioned teachers they considered to be creative, linking this observation with the subject they taught (referred to below as *group A)*. Others gave an example of some kind of activity technique or approach which they believed illustrated creative teaching, without specifically naming the subject. However in some cases the subject becomes evident from what the students wrote (referred to below as *group B)*

Group A

- A secondary school teacher who 'got students involved', provided extra materials, asked for participation, helped willingly, used a mixture of deductive and inductive approaches

[2] As in other points referred to by these students, we may not necessarily see the introduction of video viewing or writing to penfriends as creative activities in themselves. It may for example be revealed in the way these activities were carried out, but often these responses seem to underline the paucity of resources and different activities they have been offered in their learning experiences

- An English teacher who was original and consciously rejected the 'traditional method', used games songs, letters, hung proverbs which students had written on the walls.

- A Spanish Literature Teacher, who said that the best way of understanding a piece of work was by "getting into" it, taking the play or piece of literature to the theatre and reading it there, watching the film, the video.

- A science teacher who entered the classroom and wrote on the board "I'm not going to speak in this class!" so that the students had to explain the lesson for the other students

- A primary teacher who was innovative and used games, songs, videos and role-plays

- A literature teacher who "had an unusual approach, he entered the class, put off the lights, lit a candle and slowly started to read".

- A literature teacher who was "funny, serious and joking"'.

- A technical drawing teacher who "developed a wide range of activities 'unknown to us'. For example drawing static images, students had to stand and develop actions on the teachers desk, on other occasions we went out to the playground and had to draw our mates practising sports, on another out into the street to observe and draw".

Group B

- A teacher who caught students' attention, was 'imaginative', 'used games', with whom 'you didn't notice you were learning as you were immersed in the activities', who had 'many techniques on hand ready to be used',

- A teacher who created 'good moments' in the classroom, which made the things you learnt easy to assimilate and remember, 'good things are not forgotten'.

- Teachers who 'showed their concern for the student' and did their best to help them learn.

- A teacher who used a 'wide variety of ways of teaching vocabulary and grammar', so that 'even though tired we became motivated and learnt a lot'.

- A teacher who allowed students their 'own free interpretation' of for example a play and provided opportunities for 'different ways of expressing their ideas, through song, music, musical instruments'.

- A teacher who used 'creative exercises' not common to those usually done in class.
- A teacher whose teaching was characterised by 'the speed with which they changed their approach to facilitate learning' and the way they 'made everything easier for us'.
- A teacher who used 'original and interesting activities' and made people 'relaxed' and helped you to 'think about your feelings'
- A teacher who 'responds to the needs of the students as and when they arise', a 'routine breaker'.
- A teacher who used 'new' ways of organising the class, made the class an 'original experience' and provoked 'impatience' (anticipation?) as to what would happen in class'.
- Who enjoyed 'turning the class upside down with group activities' and 'psychological approaches to our creative power'
- Who made things seem 'new' or 'different', used 'regrouping techniques' so that students 'could have eye contact with each other'
- Who 'prepare their lessons to make students pay attention', sometimes in 'shocking' ways'.
- Who were interested in their 'creations', their pupils, in the type of activities they chose and in the relationship they maintained with the class
- Who didn't let students become bored, 'had new and useful ideas to share with us'
- Who give a part of themselves to make it different.

Question 4

What might be the effect on students if a teacher is a) creative, b) not creative?

a) If the teaching is creative.

By far the largest categories to emerge in the responses involved concepts like *'motivation', 'interest'* and *'enjoyment'.*

These opinions were expressed through phrases like:

- Lessons will be more interesting
- Students might learn more/ like what they're doing more
- Learners will pay attention more
- Learners will want to go to class
- Students will learn better
- Students will acquire a taste for the subject
- Students may show a real interest in the subject
- Students will be involved and participate more
- Lessons will be more enjoyable and fun
- Students will learn easier and in an enjoyable way

Two other important areas to emerge were related to experiential learning and stimulating imagination and creativity in students.

Experiential learning

- Students will learn "unconsciously, easily and effortlessly".
- Students acquire the knowledge from "the experiences they have".

Imagination and creativity

- The student "will develop his or her own imagination and be encouraged to create", "the teacher will help the student to be more creative and imaginative" and "make them different from other students and feel unique."
- The "effect of being taught creatively may rub off on the student as a future teacher".

Other factors to emerge which expressed a cautionary note were:

- Creativity may be risky
- There is a danger in overdoing the creativity element, students make not take the teacher or the teaching seriously and treat it as a joke

- The reaction to creative teaching may depend on the learner's personality, some students prefer traditional methods.

b) If the teaching is not 'creative'.

While there is some variety in the responses to part (a) of the question that of the effects of creative teaching on learners, the responses to this part of the question almost entirely revolved around the concept of 'boredom ', this word being mentioned together with 'monotony' more often than any other.

Other ways of expressing this were as follows:

- Lessons; dull, uninteresting
- Tiredness, feeling sleepy. (On the part of students)
- Lack of attention (On the part of students)
- Students will "switch off" or "turn off" in the middle of the lesson
- Unmotivated learners
- Loss of interest in the subject
- Loss of enthusiasm
- Routine
- Learning will not be internalised
- The class will turn into a monologue, a soliloquy on the part of the teacher

Many students had already mentioned elements like 'boredom' and 'monotony' in their answers to question 2 in order to illustrate what creative teaching was not. Question 4 seems to have given many of them the opportunity to confirm those opinions.

1.3.3. Comments and observations related to the students' responses to the questionnaire

It should be pointed out that the native language of these students is Spanish. While they were students in the final year of a degree in English Philology and one may expect them to be competent at expressing their ideas, the study was carried

in an informal and spontaneous way, students writing their responses without prior preparation and without a chance to revise or correct their answers. It would be natural to expect some problems of expression, choice of words or structures that might blur or make unclear their responses and make them difficult to interpret. This however was not the case. Most students seemed well able to express their opinions, clearly, fluently and without ambiguity, and while we are aware of the typical areas where problems may arise this did not happen. Two possible sections are with the use of the words "shocking" and "funny". Spanish speakers of English tend to use shocking for surprising or unexpected without the negative connotations which shocking carries in English. We have also observed how Spanish speakers of English tend to use "funny" when "amusing" would more accurately express the idea. There may be times however when the use of the word funny, as in something which makes one laugh, is the meaning students wished to convey.

At first sight it would seem that these particular students positively valued what they thought of as creative teaching and creative teachers in teaching and learning situations. They have linked their interpretations of creativity to aspects which would normally be associated with positive and facilitative learning situations. Much emphasis has been put on elements like motivation, involvement, enjoyment, and the easy acquisition of knowledge facilitated through the 'creative' teacher's flexibility and repertoire of techniques and activities. By contrast the non-creative teacher seems to be associated for them with boredom, monotony, and the resultant lack of interest and motivation which these seem to generate.

Following on from the analysis of these questionnaires many areas suggest themselves for clarification, expansion and exploration. For example:

- Do the factors students have mentioned really constitute creative teaching?
- What links can be found between definitions of creativity in general and creative teaching?
- How do those elements that have been suggested by writers in the field as reflecting creativity, and those suggested by the students who took part in both questionnaires, match up with views of what creative teaching is?
- To what extent are personal definitions of creativity coloured by for example, one's own personal characteristics, one's experience of life and learning, one's expectations.
- What constitutes 'traditional' teaching? (Many students taking part in the questionnaire contrasted 'creative' teaching with what they called 'traditional 'or 'classical' teaching).

Some students pointed to the perceived possible disadvantages of creative teaching, seeing it as something which might be dangerous or risky and which might make students ridicule 'creative' teachers and their methods. They also suggested that students may laugh and not take their teaching 'seriously'. Others wisely pointed out that some learners prefer traditional methods. Some pointed to the need for a balance between traditional methods and those which reflected a more creative approach.

We will now explore in more detail what seems to be implied in the examples students gave to illustrate what they thought of as creative teaching. Analysing their comments they seemed to fall into seven main categories based on the common factors that emerged. The seven groups are as follows:

1. Use of new / original or unknown to us activities
2. Experiential learning
3. Repertoire of techniques, activities and teacher flexibility
4. Provision of choice of means of expression and personal interpretation
5. Personal involvement on the part of the teacher / personalising teaching
6. Planning
7. Humour

We will look at those comments from the point of view of what we consider to be good, positive classroom practice. This means the creation of learning environments where learning is encouraged, facilitated and moreover where the learning process is enjoyable and the material more likely to be retained and internalised. In building good teaching and learning environments it is our belief that we also prepare the ground for creative responses from both teachers and students. We believe these principles apply whatever the area, subject or level of teaching. The examples these students gave and which we take as our starting point in this exploration, drew on their learning experiences in primary, secondary and tertiary education and across different subjects areas. We shall comment on points these from a general point of view considering classroom teaching in general and later in this study aim to focus our attention more specifically on the Teaching of English as a Foreign Language.

In addition to elements pertaining to classroom teaching which have been directly suggested by the students responses, we will also touch upon some areas which we

consider to be closely linked, which have particular relevance to the points we discuss and which, we feel need to be explored in more detail within the concept of teaching creatively. This we will do in a following section.

1.3.3.1. USE OF NEW / ORIGINAL OR 'UNKNOWN TO US' ACTIVITIES

- Teachers' who "used activities unknown to us".
- Teachers' use of "original and interesting activities" which made people "relaxed" and helped them to "think about their feelings"
- Teachers who used creative exercises "not common to those usually done in class"
- Teachers who used "new" ways of organising the class, made the class an "original experience" and provoked,'"impatience" (anticipation?)[3] as to what would happen in class.
- Teachers who made things seem "new" or "different"
- Teacher who was a "routine breaker".

Within this group of examples we see several intertwined threads, most include the surprise element or the "shock effect", where the student's attention is attracted by things which they perceive as different or unexpected. In a journal entry a student following a pre-service teacher-training course[4] wrote 'the very first lesson was somehow shocking for me. I did not expect this way of teaching, bearing in mind the usual "coldness" (student's emphasis) of University lectures.

Students seemed to associate the element of creativity as an ability on the part of the teacher to expose them to activities which they had not experienced before, or which they may have met in other circumstances, but not necessarily associated with classroom learning situations. They mentioned teachers who were able to make things seem new or different, which implies that although students may have met similar or even intrinsically the same activities before, which the teacher was able to give them a new or unusual slant so that in fact the activity seemed different.

---

[3] We have interpreted this comment as "anticipation" from the overall positive tone of the observation

[4] As previously described

In addition to activities which were new to them they also mention activities which are original and interesting, and which helped them to relax and which provided opportunities for reflection about their feelings and reactions to the classroom activities they took part in.

Also they recognised ways, which were new to them, for the teacher to organise the class, perhaps into pairs or groups, ringing the changes with those pairs and groups so that they were not always working with the same people. Some recognised that it was new for them to actually be able to see the faces of other students when they spoke rather than just hearing a muffled voice directed away from them.

Through their comments, these particular students reveal a great deal about the majority of teaching to which they have been exposed. If elements like "working in groups where you can see the faces of the students you are working with" or feelings of "pleasant anticipation" about what might be going to happen in a lesson are worthy of note then the implication is that most of them have been largely accustomed to "traditional" ways of teaching, confirming what many mentioned in response to other areas of the questionnaire.

1.3.3.2. Experiential learning

- Teachers with whom "you didn't notice you were learning as you were immersed in the activities"
- Teachers who created "good moments" in the classroom, which made the things you learnt easy to assimilate and remember

These comments seem to describe real experiential learning situations, which have been described by Kolb (1984) and advocated by educators such as Rogers (1983), Roger & Freiberg (1993). Experiential learning situations can arise naturally in a classroom, but are much more likely to be the result of careful planning on the part of teachers. These are situations where students are actively involved at a level of more than note-taking or listening to a teacher or lecturer droning on and on. Instead, they learn by doing. There are those who would argue that not many subjects lend themselves too readily to experiential learning situations. Apart from the subject matter itself, time is a major constraint. There is just not the amount of time available on school and university courses to indulge in the "luxury" of this type of learning. Both these points are relevant factors but perhaps we have come to rely too heavily on the scenario of students mainly listening, their thoughts drifting in and out of the classroom as their levels of concentration and interest ebb

and flow and, particularly in universities, the almost inevitable note-taking in linear form. Teachers should consider more carefully where they could build in opportunities for learning by experience. All too often these possibilities are overlooked. Even when the subject matter is suitable and situations could be developed, valuable opportunities are missed, when with a little imagination on the part of the teacher, activities could be developed so that learners are involved in "doing", rather being given information about some area of knowledge.

Most of us will be able to bring to mind situations or occasions in our lives when learning by doing made the thing we had to learn stay with us forever. We cannot be sure that the experiences these students had will make what they learnt on the occasions they referred to, stay with them forever. We suspect though that the chances are better than with the huge amounts of factual information which has to be learnt in order to pass examinations and which if not put fairly soon to a practical application will be lost for ever.

Teachers need to choose materials carefully so that they are relevant to the teaching situation, the students and their interests and to pitch them at the right level for their students. Equally important is to consider how the activities could be organised to maximise opportunities for content and process to be fused, for the kind of learning where a student might honestly be able to say, "I was so immersed in what I was doing that I didn't realise I was learning".

This approach to introducing material or ideas for students to work with, in such a way that the process reinforces the content, is well illustrated, under the label "loop input", where Tessa Woodward (1988) has developed these types of strategies for teacher training courses.

1.3.3.3. REPERTOIRE OF TECHNIQUES, ACTIVITIES AND TEACHER FLEXIBILITY

- Teachers who had "many techniques on hand ready to be used"
- The speed with which they (teachers) changed their approach to facilitate learning
- Teachers who used a "wide variety of ways of teaching vocabulary and grammar", so that "even though tired we became motivated and learnt a lot"

The implications of these examples rest on many interconnected factors. Firstly there is the consideration of experience. It is important that the experience the

teacher has acquired has not been of that oft quoted variety where the teacher reminds one that they have been teaching 10 years' and the rejoinder is to the effect that each of those ten years has been exactly the same! What is important is that during those years of experience, the teacher continues to evolve, learn and develop as a teacher and also we hope, as a person. Teaching experience well used will bring together all kinds of knowledge some relatively easy, some much more difficult to define. Alongside this, teachers who are interested in enriching their own teaching experience and the experiences of their students will inevitably find themselves accumulating a repertoire of techniques and activities which 'work' for them and their students and which they are able to draw on as when the need arises. This is not to say that teachers will one day reach a point where they can say, "I now have everything I need, my quest stops here." We believe that the ongoing process of development necessary for teachers will keep them continually on the look out for ideas, activities and techniques to add to their repertoires.

A point here to bear in mind, as we will later go on to explore in a following section, is that as we are all individuals we all have our preferences and favourite types of activities. So too, do our students and we as teachers, have preferences, sometimes albeit uncrystallised and unverbalised for different sensory modes and ways of receiving and processing new material.

If as teachers we succumb to the natural tendency to select ideas, materials and activities for our students, which we personally like and reject those we do not like we may be missing out on something which might appeal to our students. An activity which we do not feel particularly comfortable with nevertheless may provide us with new insights and challenges to our preconceived ideas.

The comment about the 'speed with which they (teachers) changed their approach to facilitate learning' also implies that the teacher has a wide repertoire of techniques and activities at their disposal. More than it also implies an ability to 'read' the atmosphere in the classroom and to respond accordingly. If it quite clear that something is not working, to carry on as if all was well is to waste everyone's time. Knowing when to stop or change an activity and substitute another is of course another of those things we learn by experience. If we do not feel able to abandon an activity while the class is in progress then at least we need to think about, for example: what went wrong with an activity, how we could plan things so that more students are involved next time, how we could arrange things so that the students can work comfortably in groups, and so on. A reflective approach to teaching involves just this, looking back over your lesson, assessing what went well, what not so well and thinking about the possible reasons why, what to keep and what you might change next time to rectify or improve things.

If we are short on ideas or very limited and inflexible in our methodology, we need to think about ways of broadening our experience and our horizons. Teachers need to keep up to date with what is happening in the world of teaching. They should attend workshops, courses and conferences which as well as providing them with theory also give them plenty of practical opportunities to try out and experience for themselves and share their ideas with other teachers. Teachers who evolve in their own personal lives will usually find that this also affects the way they teach, opening new possibilities and new horizons. These are the benefits of teacher development which can be seen as an ongoing process of learning and development for teachers, a kind of cyclical process where personal development is interconnected and forms a

1.3.3.4. TEACHERS WHO ALLOW STUDENTS DIFFERENT MEANS OF EXPRESSION AND PERSONAL VIEWPOINTS

- Teachers who provided students with opportunities for "different ways of expressing their ideas, through song, music and musical instruments".
- Teachers who allowed students their "own free interpretation"

While there are areas in teaching which more obviously lend themselves to different means of expression, apart from written and oral, music and art spring immediately to mind, if we can break out and be more imaginative and encourage our students to express themselves in different ways we may be pleasantly surprised at the results, whatever the subject. So too might the students.

On a pre-service teacher training course, students[5] working on the practical skills needed for Classroom Management having been introduced to the idea of mind maps were asked to present their ideas in any form they liked. So that their ideas could be shared time was set aside in a follow on class for students to put their work up on the classroom walls. They were given time to walk around and look at their fellow students' work. The wide variety of forms of expressing their ideas surprised both teacher and students alike. In their learning journals students expressed amazement at the wide variety of visual representations, the imagination, and the time their fellow students had dedicated to the task. In much of the work, colour abounded, visual metaphors gave everyone, students and teacher, new perspectives. Teaching and more specifically the area of classroom management and the teacher's practical skills were compared to a fan, a tree, a building[6]. Not all

[5] As previously described

[6] See appendix 19 for some examples of this work

students chose to use visual representations, some opting for more traditional linear presentations. The important points to emerge from this particular exercise are that given a choice;

a) Many students may choose a form of representation apart from solely written,

b) Those who choose to use visual means of representing their ideas surprised even themselves both with the results and in the pleasure they experienced doing it. Some confessed that they had not done anything like it for years referring mainly, we believe to the idea of working with colour and expressing ideas in both visual and written form.

Some students stayed with the tried and tested written, linear presentations with which they presumably felt more comfortable and safer and which undoubtedly took less time and may have been less demanding given that it is the way they most often present their work. It should be noted however that students do not all respond immediately to apparently innovative activities. Some may require more time to adjust taking up ideas at a later date.

From what is known of left and right brain processing theories it is clear that there are people who are predominantly "left" or "right" brain people. We will look in more depth at the implications of this brain theory and how it might be linked to creativity in another section of this study. In overly simplified terms, the left brain tends to reflect a preference the use of the intellect, logical, analytical thinking, for convergence and linear thinking, while the right brain is more intuitive, holistic, divergent and nonlineal. It may be safe to assume that some of the students were naturally left brain predominant people, however most school and university courses are structured for left brain processing modes and thus most students become used to thinking and working in that way. However, given the opportunity students might opt for more right brain type activities and find themselves comfortable and more able to express themselves in that mode. In doing so they may discover something about themselves or rediscover something they had forgotten, like some of the students we mentioned above.

In addition to an awareness of left and right brain modes we should also take into account that most people have different sensory preferences. Once again they might not be consciously aware what these are, yet most people relate to, or receive and process input best in either visual, auditory or kinaesthetic ways. We have found the applications of these elements of Neuro Linguistic Programming to be relevant to knowing our students better and thus being able to provide input which

will cater for the different needs and ways of learning and processing that knowledge. So to does an awareness of Gardner's theory of Multiple Intelligences. All these types of considerations which give us insights into how people learn, underline the fact that our classes are made up of individuals who are not all the same. Taking these aspects into consideration can only enrich the teaching and learning experience in general. If we are looking to maximise creativity in classrooms these are also important areas to consider.

The practical implications of the examples we have cited are that although generally teachers give students little if any choice in the way they present the result of their homework, thinking or research, once students become accustomed to the idea of different ways of presenting their work and of course that value is given to it, they may well find that on occasions they can express their ideas more clearly or in a way which better allows them to express their individuality. This is an idea we will explore in more depth later.

1.3.3.5. PERSONAL INVOLVEMENT AND PERSONALISING TEACHING

- Teachers who give a part of themselves to make things different.
- Teachers who helped you to "think about your feelings"
- Teachers who were interested in their "creations", their pupils, in the type of activities they chose and in the relationship they maintained with the class
- Teachers who showed their concern for the student and did their best to help them learn.
- Teachers who didn't let students become bored, "had new and useful ideas to share with us"

The main implications of these comments are centred on elements related to humanistic and affective teaching. The clear message that emerges is that for these students they are aware that it is not only the content or the subject to be taught which is important, but also the process and the people involved. That it is the creation of an agreeable environment which is paramount in building learning experiences that are pleasant, and which build, rather than undermine, learners' self esteem. An element clearly of great importance in any classroom and any subject, but perhaps even more so in the area of foreign language teaching, where in teaching a language, we are helping people towards another means of personal

expression. Language is deeply related to one's self concept, one's self image and conditions that take these important factors into account are likely to create positive learning environments (Arnold 1999, Dufeu 1994, Rogers 1993).

1.3.3.6. PLANNING

- Teachers who "prepare their lessons to make students pay attention"

We may of course interpret this statement in different ways. How do we make students pay attention? How can we be sure that students are paying attention? In schools with younger learners lack of attention can lead to disruptive behaviour. With university students it can be more difficult to tell. Quiet, seemingly attentive students could well be quietly absorbed with their own thoughts. In lecture formats if the lecturer makes no effort to involve the students even briefly from time to time it is more than likely that even the keenest student will have to battle to maintain concentration.

While flexibility has been suggested as an important element in creative teaching in no way should this imply a lack of planning. Apart from the content to be taught teachers need to build in a variety of activities which require different types of attention and effort. They also need to develop an awareness of when to change an activity or take short re - energising breaks. Short activities of many kinds can be used to break up a lesson, change pace and revive flagging attention. By introducing such short reactivating activities we can create new attention peaks that keep concentration and interest high. (Jensen 1995, Lindstromberg 1995, Wycoff 1991)

1.3.3.7. HUMOUR

- Teachers who were, "funny, serious and joking".

We believe that the ability to be serious as well as entertained, is valued for a variety of reasons. One important factor is the humanistic element. In most situations in real life we can and do, sprinkle in a little humour. Bringing humour into the classroom makes the classroom seem like a place where teachers and students can behave normally and shows the teacher as another human being, not just someone who is there to impart to others the knowledge they are there to learn. The old saying "all work and no play makes Jack a dull boy" has its place in the classroom. All teaching and learning does not have to be tackled in the same way. While

periods of intense intellectual activity are necessary in the learning process, these can be interspersed by periods of lighter, less intellectually demanding activities.

Humour relaxes and laughter is a well-known tension releaser. While there are plenty of examples and ways of using humour and jokes in the classroom, we are thinking here more of the kind of humour that naturally emerges in human intercourse. We are not of course including humour or jokes made at the expense of others. In a relaxed classroom where the emphasis is on building confidence and where students and teacher feel at ease there are many occasions for seeing the funny side of things, allowing a few seconds for everyone to enjoy a joke or a funny situation.

Maybe too, we underestimate the power of a smile. A natural smile reciprocated can make everyone involved feel good and the effect rubs off on others. The short time taken out for such things has the power to positively affect the whole lesson. The mood or state of mind of the class can be changed, students and teachers can feel re-energised, and reactivated and ready to continue. While exploiting situations that arise naturally, we can also plan in short activities which are designed to work in the same way and which may be based on humour. We might also bear in mind that humour has been viewed in a similar framework to creativity (Koestler 1989), and as such may be a fruitful area to explore and develop as a naturally occurring element in the classroom and in devising creative activities.

1.4. Summary

In this section we have analysed students' responses to the open-ended questionnaire on the topic of teaching creatively. Although the subject had come up on a few occasions in class these students had not been prepared for the idea of answering a questionnaire, and so we feel their responses were spontaneous and unprepared. They worked individually and with much concentration, some even continuing beyond the end of the last lesson of the morning to put down what they wanted to say. Looking carefully at their responses, and at the categories which they seem naturally to fall into, they have neatly pinpointed many of the key factors which we believe to form a basis of good teaching and more especially to the fundamental elements in the creation of good learning environments. Do these elements however constitute or go towards the concept of teaching creatively? We shall explore this theme in more detail in another section. In our follow up comments on each of the main categories we have looked at the students' responses and expanded on them. We have also touched on other areas which we will develop in more detail in subsequent

sections because of their close links with good teaching practice and because of their possible links in providing the environment the necessary conditions for creative teaching.

2. LESSON PLANNING AND CREATIVE TEACHING

Given the importance of lesson planning in teaching, how does this fit with the idea of creative teaching?

2.1. Lesson plans, contents and considerations

Most teacher trainer courses require trainees to write lesson plans, to submit them before teaching practice, and include sessions where sample lesson plans are discussed, models given and feedback given on the effectiveness of trainees attempts to plan. Feedback may include discussing a whole range of observations - teacher/ student interaction, body language, materials, etc. Particularly in the early stages of teaching, for the inexperienced teacher, planning is an essential protection against disorganisation, panic, lack of purpose and similar problems. In addition many teaching establishments require lesson plans to be submitted or available for inspection. The plan will usually include elements like the specific language items to be presented and the skills to be practised, the aims for each part of the lesson and the timing allocated to each of those parts. It should include reference to the materials to be used at the different stages. It should also pay attention to the 'how' of the lesson or the process by which the content of the lesson is to be dealt with. This involves viewing the plan as more than the subject matter to be taught, it should also take into account the learners and the degree to which they are to be involved in the lesson. This would include aspects like planning in advance the type of interaction in the classroom during any stage of the lesson, be it for example: teacher – student, students in pairs, students in groups, students working individually, students presenting work to other students, mingling type activities where students are moving around the room for a short time and interacting with different students, etc. Any good plan will also include and build in an awareness of pace and variety of activity so that the lesson allows for periods of concentrated intensive work and also for periods of less obvious and intensive effort in the form of short activities which can serve a multitude of different purposes. For example short activities at the beginning of the lesson, short state-changing activities during the lesson and possibly some short activity for rounding off the lesson. In addition the teacher

should be aware of areas which may cause difficulties for students, perhaps in their understanding of a particular structure or in dealing with aspects of phonetics. Another consideration is that the teacher needs to take into account student differences and the fact that not all students will latch on to what the teacher is presenting or necessarily find it easy to respond and participate. Factors such as these need to be taken into account as too do elements like creating a pleasant classroom atmosphere where the student feels at ease and not threatened. While these are probably the most important aspects of lesson planning there are others which influence the way in which the lesson is perceived by the students. For example we think it is important for the lesson to have a feeling of roundness or completion with a beginning, a middle and an end. This involves finding ways of capturing students' attention at the beginning of the lesson, bearing in mind that most often students come to class from another class and subject to the English class and so a period of adjustment is required. Also we think it important to round off a lesson ending as far as possible on an up beat and pleasant note, avoiding the situation which so often happens of a lesson fizzling out on a low note with the teacher hastily administering last minute homework.

Clearly while lesson by lesson planning is important attention has to be paid to medium and long term planning too and to how the global picture fits together. Many syllabuses are based around the contents of course books and while this usually ensures a degree of cohesion, too often it seems to be the case, especially where the main focus is on grammatical structures, that each lesson deals with a grammatical point and then in the next lesson another is dealt with. It is vitally important that cohesion is built into planning and there is a thread of development linking and running through each lesson unifying and making each part dependent on and interconnected with each other. Woodward (1995) deals with this approach to lesson planning and although demands of syllabuses and the pressure of examinations make for covering material in rapid succession in most educational establishments it should be possible to build in this important cohesive element.

The luxury of teaching courses of English which grow organically are an excellent example of cohesion and following the ongoing thread. In this type of teaching, only a starting point is needed and then each following lesson can be planned naturally out of the needs generated by the student and the needs or gaps in the students knowledge as diagnosed by the teacher taking into account the interests of the students. In this way the acquisition of the language flows in accordance with the needs and level of the student. Each stage flows out of the previous one in a natural and unforced way. This type of teaching does not of course remove the need for lesson planning, but requires it to be a much more aware and sensitive

process where the teacher needs to carefully read the signs of the students' needs, interest and grasp of the language being fed in order to maintain the rhythm pace and input suitable for the learners in question.

With experience, and if the system does not demand it, many teachers may move away from writing of the tight and detailed lesson plans they prepared in the early years of teaching. Each individual may evolve their own system, maybe jotting down the main points, activities and considerations in a fairly brief form. This triggers off the more detailed unwritten plan underlying the key words and drawing on their experience and extensive repertoires of activities and exercises to flesh out the bare bone of the skeleton plan. Thus even though the plan may not be committed to paper it exists or certainly should exist if the aims of the lesson are to be achieved and the students make progress. In the 'stuck teacher' concept one of the points suggests that teachers who are stuck no longer make plans, as they feel they have done it all before and this is no longer required of them. What is most likely to happen is that these types of teachers fall into a type of default mode of thinking about and carrying out lessons where previously taught lessons are taught over and again, without searching for fresh alternatives, never breaking the monotony or even taking into account the inevitable different chemistry of each group of learners.

2.2. Who makes the lesson plans?

Many teachers may be tempted to use course books to do their lesson planning for them. With the wide range of course books available many of which describe the sequence the exercises and the activities necessary to carry out any lesson of any unit in the book this certainly seems like a viable possibility. Yet as we have commented on elsewhere unless the teacher is to ride roughshod over the needs and interests of the students inevitably teachers will need to adapt and modify what the text book puts forward. As many textbooks provide supplementary activities usually the problem is not in having enough to do but rather in selecting from what is available. Such frameworks for teaching may apparently save and effort and indeed may suggest useful activities for teachers to add to their repertoires. They may be especially useful for new teachers, but most experienced teachers would find it restricting to follow the plan as devised by someone else. Their main virtue may be in providing a structure within which to work and yet which can be adapted.

The imposition of lesson plans by directors of studies are often seen as serving a 'damage limitation function' especially when inexperienced or transitory teachers

are concerned. (Harbord 2001) [7]. They might also reflect the need for a tight control of the syllabus to ensure fairness in final assessment in students. However, most teachers involved and interested in their work would surely feel limited by the imposition of lesson plans from outside. Snyder (2001) [8] points to the fact that many teachers feel most satisfied with and successful in their work at such moments when they can freely deviate from the plan and follow up on a tangent that arises in class and in which control of the discourse is gradually handed over to the students. Yet course books which come with detailed teacher's books seem to give the impression especially to trainee or inexperienced teachers that teaching is a matter of following the teacher's book and that there is little point in designing lessons from scratch. While course books can undoubtedly be a great help easing the pressure on inexperienced teachers, it is a little sad if teaching is seen to be made up of just following the book. It is by learning how to put a lesson together to suit a particular class that we learn what works and what does not. With new and attractive course books coming continually onto the market some may feel that the book will solve all problems, but this is surely an oversimplification. Course books, together with resource books can be an enormous help in assisting teachers to build up experience and add useful activities and techniques to their teaching repertoires, but they should not be seen as providing the total solution.

One of the aims of the kind of teaching that moves towards creative teaching is in developing awareness of the need to have resources to fall back on at the same time as sharpening awareness for recognising those sometimes special golden moments that spark from students and knowing how and when to exploit them. Too tight a control imposed by the teacher's own plans or the demanding and often unrealistic syllabuses imposed from above can be highly detrimental to the development of creative teaching and learning

2.3. Metaphors in lesson planning

Bearing in mind some of the points mentioned above, Lesson plans are nevertheless often difficult for beginning teachers. This may be due to the lack of experientially derived lesson schemata and the lack of an accumulated repertoire of activities, perceived difficulties, insecurities and so on. We have observed that many teachers in an attempt to overcome possible problems, tend to over plan, including too

[7] Electronic source. TESL-L <LISTSERVE@CUNYVM.CUNY.EDU >

[8] Electronic source, TESL-L< <LISTSERVE@CUNYVM.CUNY.EDU>.

much material and fail to allow time to exploit activities fully or allow students time to become involved or time to think. Experienced teachers may have plenty of experience to draw on, but this does not necessarily mean that they conceive of and plan their lessons in ways that are rewarding for them and their students. It is easy to fall into predictable patterns just because they always seem to work, but to generate new possibilities is to keep the teaching learning process dynamic, evolving and creative. Some teachers may have their own ways of 'seeing' a lesson. We have suggested for example that one way is seeing a lesson rather like a narrative with a beginning a middle and an end with variety and pace in the action and at some stage along the way an element of the unexpected.

Metaphors can provide useful frameworks for thinking about teaching and learning teaching, and help teachers to build more satisfying structure and form to their lessons. They are particularly useful for reviving jaded perceptions and can trigger interesting and illuminating insights. A framework for creative teaching that we have suggested in this study is in viewing the process of teaching as an art. Thornbury (1999) has suggested that good lessons share characteristics that are independent of the teacher the context and the teacher's allegiance to any particular method. These characteristics are largely aesthetic and as such are not peculiar to the culture of the classroom but are shared by other expressive art forms. Aesthetic experience is certainly not limited to the world of art and can occur in any aspects of our daily lives from the planning of our living spaces to the way we prepare and present a meal or a piece of work. We are sometimes affected by aesthetic qualities unconsciously and it is useful to draw out what makes something pleasing or not and why.

On teacher training courses our students have come up with a variety of metaphors for viewing the teaching and learning process, some of which they represented visually[9] through graphic designs and some in words.[10]

It is vital to plan lessons, however this planning is done, in order to respond to the needs of students combined with the demands of the syllabus otherwise, like the 'stuck' teacher we are in danger of unthinkingly repeating tried and tested lessons over and over again. This does not necessarily mean that lessons have to be written out in great detail. Nor does it mean that completely different plans need to devised

[9] See for example the diagrammatic representations of the 'shape' of a lesson in Appendix 19, 1.

[10] For example such processes were compared to: a fan – it opens or spreads out to reveal its complexity, beauty and usefulness when open, when closed we do not see what it hides. A tree- its roots grow deep, it depends on the soil, it grows in the sun and light, it needs nutrition and water , it is a complex living structure, it produces leaves, fruit, flowers…., see also Appendix 20, metaphors for a good lesson

from scratch each time. It may be that some lessons have worked very well and clearly it is worth using similar approaches and successful activities in the future. However it is here that reflection on the part of the teacher is important, for it is based on this that the teacher decides what has worked in class and what hasn't, what should be used again and what needs to be changed. Here too lies the importance of student feedback. Teachers need to be responsive to different types of feedback from learners, from the subtle clues gleaned by the aware teacher, to students' ideas and opinions which may be asked for or offered for example in their learning journals. However feedback is obtained, and whether it is from teacher themselves or from students it needs to be considered.

It seems to be part of the very nature of foreign or second language teaching that it lends itself more to teacher flexibility than perhaps any other subject does. The teacher may have the best thought-out and best-written plan, but they always have to have contingency plans in mind for unexpected reactions or non-reactions in students or be able to tap into their own personal repertoire of techniques and activities. Lesson plans provide productive and challenging frameworks within which to work but which do not necessary have to be abided by to the letter. It takes a lot of classroom experience and an open mind, combined with an honest respect for the students' interests and curiosities, to realise that even though we may be the authorities on learning and discipline, we are also learners as much as the students are our teachers. If the teacher can seize the magic moments that students generate, surely this is every bit as those elements which are included in the lesson plan.

For the creative teacher and those concerned with fostering creativity in learners, spontaneity and the unexpected can inject the necessary dynamism and magic into classrooms that make them more interesting and creative places to be for both students and teachers.

In artistic processes one expects to find complications along the way, it is in the resolution of the problems that arise that a satisfying and aesthetic solution is found. Some views of creativity see the process as 'problem finding' (Csikszentmihalyi, 1998). By contrast traditional models of teaching like for example PPP (presentation, practice and production) seemed to convey the idea that all problems will be avoided by following the model. Models in other areas of life, like recipes and route maps can embody the good practices of the expert but do not need to be followed slavishly, so perhaps there are models which might usefully provide frameworks for lesson planning. Thornbury (1999) suggests that a teaching event has many contextual characteristics in common with other public performance events.

> Like a sports match, a piano recital, a play, a rodeo, or a sermon, a classroom lesson is a scheduled, bounded, deliberately-constituted and purposeful event, happening in real time and in a special appointed space. Moreover, it involves two distinct sets of participants, each with mutually accepted codes of behaviour that determine the nature and extent of their participation and interaction. It should not be surprising therefore it teaching events set up expectations similar to those of other performance genres. (5)

What expectations do our students have of lessons? Do they expect them to share characteristics with other performance genres? If it can be said that "a good lesson is like a film because it has a plot, like in the movies, and you have to be caught up in it so you don't lose the thread" or "it is like the different parts of a jigsaw or a film which add up to a whole which has its own sense", then maybe viewing a lesson in such a way could provide a useful framework for thinking about creative lesson planning. It could give some pointers as to elements which need to be built into that framework which include plot, theme, rhythm, flow and a sense of ending.

If taking structures like those mentioned above can help teachers to plan into their lessons some of the elements which make good films and stories successful then they may be working towards creating the conditions that will bring about involvement and motivation in their students which in turn may lead to states of flow in their learners where learning is perceived as pleasurable and rewarding.

2.3.1. Students' metaphors for good lessons

On pre- service teacher training courses we have found it useful to explore these ideas with students. We have done this mainly as an awareness raising activity, encouraging students to think about and crystallise ways of perceiving the shape or form of a good lesson. This moves beyond the normal limitations of seeing the lesson plan as a way of organising content which all too often ignores the form or the processes of teaching and learning. Activities such as these while interesting and thought provoking in themselves may help students to include such considerations into their own lesson planning once teaching their own classes. If we view teaching as an art, a concept developed in more detail in Section II of this study, then we should also take into account the aesthetic elements of teaching. This includes elements like balance, form and pleasurable experience for those involved in the process. We took the idea of the shape or form of a lesson from the point of view of a metaphor or comparison with other events, and also as a visual

representation, inviting students to draw [11] the shape of a good lesson. In response to the stem sentence "a good lesson is like…" one group of students produced examples like:

- A good lesson is like a dance because the teacher must be aware of the use of her / his body, movements, and of course everything must be prepared and co-ordinated as in a ballet.
- A good lesson is like a government, because there must be different ideas or conceptions but at the end there should be a connection between those ideas, an agreement
- A good lesson is like a good film, because it has an open-end students have the chance to investigate and develop those aspects they are interested in

More examples in this vein which can give interesting insights into the elements that attract and hold students' attention and which can then be built into lesson plans are included in Appendix 20.

2.4. Summary

We consider lesson planning to be an important area both from the more conventional viewpoint of planning in the necessary content and activities, for the presentation of new material and for all the stages of assimilation and consolidation. In addition from the point of view of our study we also see the need for flexibility, without which the teaching process ignores vital elements of dynamic teaching- learning processes. In section II we have referred to this aspect as the "unfolding" quality which can make teaching a creative process and which like any area of creative endeavour must take into account balance and form and pleasurable outcomes.

The metaphors cited above, apart from working towards the objectives we outlined above within the context of teaching as an art, and awareness raising for future teachers, also provide another useful example of the power of feedback. Activities like these can provide useful and illuminating insights for teachers and teacher trainers helping them to be open to different perspectives and to bear in mind and implement them in future planning of lessons and courses.

[11] A few examples which resulted from drawing the "shape of a good lesson" are included in Appendix 19

3. THE ROLE FEEDBACK IN CREATIVE TEACHING

If we are to educate for change and to encourage creativity a balanced approach which passes on the relevant bodies information but which also takes into account the learning processes, experiences, opinions and ideas of learner is necessary. Easy access to so many areas of information through TV and information technology means that we cannot treat learners as if they come to us with their minds open and ready to be filled from the jug of knowledge poured by the teacher. In teaching we may sometimes give the impression that a body of knowledge is finite and should simply be learnt or committed to memory. Yet in many cases information learnt in this way does not become assimilated and synthesised with previous knowledge but remains something apart and often of little relevance, if indeed it stays in the memory at all. If it does not remain accessible then clearly it does not become a resource which can be drawn on later and as such tends to render the time spent on it in classrooms situations as wasted or at least not well spent.

In our experience we have seen how providing opportunities for students' to contribute to the teaching learning process with their own ideas, observations and opinions can be fruitful in a variety of ways. Giving students a voice does more than just let them air their ideas. If we pay attention to their contributions it also give them a feeling that they are valued as human beings and individuals. In addition to the possible benefits to the students there are many other considerations arising from encouraging feedback from students.

3.1. Positive factors

Opening a window of 'dialogue' creates a different dynamic in the classroom. Among the shifts and swings in emphasis and focus in the ongoing story of education, the subject of 'teacher-centred' or 'learner-centred' classrooms is one that continually provokes discussion and reassessment of values in the implications for what goes on in classrooms. Curiously, terms like these are often seen as expressing a dichotomy of two clear opposites suggesting that nothing that lies between the two extremes on the cline. When the swing towards teacher-centred classrooms reaches its maximum, then a return to learner- centred classrooms is often called for and viceversa. Extremely teacher centred classrooms are usually seen as overly controlled and pay little or no attention to the interests, needs and concerns of the learners. Learner centred classrooms are often portrayed as chaotic places where students rule and discipline is non existent. Let us hope that what goes on in classrooms is neither one of these extremes but works on a level where while the teacher has a

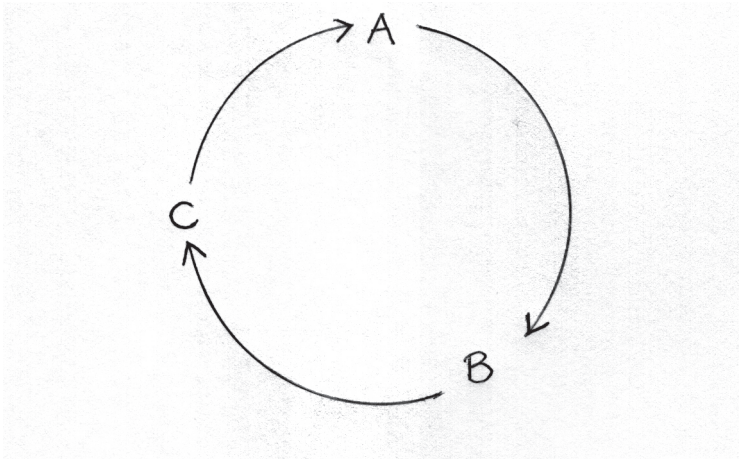
clear idea of the aims of each lesson and carefully structures the amount of new information to be taught they also take into account the needs, interest and level of the class as a whole, while not forgetting that any class is made up of a number of individual learners. The degree of teacher or learner centredness will depend on a variety of factors, which might include considerations as for example, the level of the students or the type of activity being carried out at any particular time. Learner-centred classrooms are sometimes seen as easy options for teachers but far from this, they may in fact provide far more challenges to teachers than the term would suggest. As always what is called for is a delicate balancing act taking in account the particular teaching/learning situation.

As teaching situations which are predominantly teacher centred and controlled are unlikely to be scenarios for creative teaching or learning we need to aim for a suitable balance which views the teaching/learning process as something in which learners can actively take part, a process in which there is some degree of give and take and in which knowledge and experience of the learners is taken into account and interwoven with the subject matter which has to be taught. Thus feedback can be seen as providing valuable information for the teacher to work with in making the learning experience a more meaningful, efficient and at the same time a more creative one.

3.2. Types of feedback

While this study deals with feedback in teaching and learning situations, we have suggested that for creative teaching, feedback is not an optional element but forms an integral part of creative teaching processes. The term feedback is used in many other fields and has come to mean the conveying of information about the outcome of any process or activity to its source. In cybernetics, comparisons between machines and organisms are embodied in the concept of feedback. A feedback loop has been described as "circular arrangement of causally connected elements, in which an initial cause propagates around the links of the loop, so that each element has an effect on the next, until the last 'feeds back' the effect into the first element of the cycle". (Capra 1997: 56)

In teaching, mechanistic types of teaching might be seen as those which pay little or no attention to the learners and learning processes and as such, do not seek and even ignore classroom feedback.



The circular causality of a feedback loop. Capra 1997.

By contrast creative teaching is represented by an approach to teaching which is open, flexible and has the ability to respond and react to feedback. Capra has described the consequence of the feedback loop as one where "the first link (input) is affected by the last (output), which results in self regulation of the whole system, as the initial effect is modified each time it travels around the cycle" (56). No great leap of the imagination is required to see how the feedback loop may be applied to creative teaching.

The term input comes from the world of systems engineering and although it is commonly used in areas of teaching and training with its connotations of the 'putting in' it emphasises content, rather than the recipients of the input[12], the learners. As such it tends to emphasise the transmission of knowledge, and tends to ignore what we have put much emphasis on in this section, that each member of a class or group has knowledge and experience inside them which can contribute to and enrich the learning environment.

3.2.1. Using feedback to ascertain students' progress

One main function of feedback is in enabling teachers to ascertain how well students are dealing with new material and in their ability to build it on to previously taught

[12] Woodward (1992:16) discussing the term 'input', from the view point of both learning and teacher training, suggests that it blurs some important issues: content; no matter how it arrives in a session, has to be worked on, reacted with and processed by participants; intake is very rarely the same as input; the fact that something is taken in by an individual does not mean that there will necessarily be an output; If there is an output, it is as unpredictable as intake.

and learnt material. This can be done in a variety of ways ranging from informal approaches to more structured ones. These include for example a teacher's observations derived from a keen awareness of what is going on in the classroom, from seeing how well students are able to respond to and take part in classroom activities, seeing how well students respond to questions in class, how well they do exercises and exercises of all kinds as manifest in classwork, homework and in tests or exams.

3.2.2. Awareness of other factors influential in classroom learning

Overlapping with this is the kind of feedback, is the type[13] that aware teachers collect which is not so much directly related to the students' assimilation of the material being taught or practised, but rather that which gives clues to their level of interest, involvement, understanding and concentration. Teachers can continue to teach their planned lesson ignoring all these signs or they can respond to this type of feedback by, for example adjusting the input and the pace of teaching activities. This might involve introducing a short re-energising activity if students are showing that concentration levels have fallen drastically, by deciding to leave a particular exercise for another day or changing their presentation if their judgement tells them that students are failing to grasping the idea. Thus being sensitive to and acting on this type of feedback is another important element in maximising learning experiences.

3.2.3. Activities specifically designed to elicit feedback from students

By comparison with the types of feedback mentioned above there are a wide range of possibilities for collecting feedback from students which rather than focussing on students performance in class, give students the opportunity to reflect on areas like their own learning processes, their reactions to activities done in class and so on. A few examples are given below.

[13] This includes an awareness of behavioural clues like yawning, fidgeting, silence when there is normally a hum of noise, and noise when there is usually silence, glazed expressions, lack of response, or on the positive side an apparent high degree of student involvement and interest.

3.2.3.1. QUESTIONNAIRES

Questionnaires tend to be associated with and used in certain teaching contexts and rarely or never used in others. Courses for adult learners often include an initial questionnaire that looks at the course participants reasons for attending the course, their previous experience the areas they work and how the course might be relevant to them. An end of course questionnaire might ask for their evaluation of the course, the teaching staff and other aspects of the course and even to make suggestions as to how future courses might be run. In the years of obligatory education students are rarely if ever given the opportunity to express the opinions and ideas. While the motives for this are quite clear, nevertheless there may be occasions when students may be given the chance to express their views on for example a particular practice activity or some innovative idea or technique.

In our experience it has always been useful and informative to give students a questionnaire at the beginning of a new course. Questionnaires can be used to help students crystallise their own ideas and express them coherently. They might be asked to reflect on areas like how they feel about their level and their abilities at the beginning of a course, what they expect to have achieved personally by the end of the course, areas that they personally would like to improve on, their expectations of the course and so on [14]. These types of questionnaires can be useful reflective tools for the students themselves helping them to assess to what extent they have progressed and achieved their goals by the end of the course, or if they have changed their ideas along the way. In addition, they provide the teacher with some initial information about the group. If a second or other language is involved the responses to the questionnaires can reveal the general level of the group if the responses are written in the target language. In cases where the students do not have sufficient of the target language to express themselves satisfactorily, questionnaires can be filled in using the mother tongue and still provide a useful experience for them and useful information for teachers. Within the constraints of most courses there may well be some areas which lend themselves to a more flexible approach and feedback of this kind can help teachers to tailor or refocus the course activities in some way to suit the needs and interests of the students. End of course questionnaires can help to highlight areas which require more or less attention or need a refocus or shift in the balance of activities which a course offers.

[14] For examples of these types of questionnaires see Appendix 26.

3.2.3.2. LEARNING JOURNALS/DIARIES, LEARNING LOGS AND ACTION LOGS.

Within these categories we need to distinguish between the different focuses or aims of writing journals, diaries or logs. There are those which focus on the learners and where the principle aim is to help learners reflect on their own learning processes, styles and strategies. Through the written journal or log, teachers are able to monitor the progress of learners. In addition they are also often used as an additional means of assessing the student's progress. Another purpose which is less focused on pinpointing learner style can be used as a more general tool for assessing a student's progress while at the same time providing insights for the teacher as to the students' response to the course and the activities done. Learner journals or diaries are a frequently used device on teacher training courses because of the insights they can provide for trainees into their own learning processes and in turn for the implications and applications of these experiences to their own experiences as teachers.

The concept of learners reflecting on and writing about their learning experiences within educational contexts has become increasingly popular in recent years and reflects the move towards raising awareness in student learning styles. Woodward (1988) points out that "reflective journals have been used in educational establishments all over the world, and especially in higher education, for more than a decade."(149). In addition learner diaries or journals in classroom centred research is now well established (Woodfield & Lazarus 1998). Learning journals of the open-ended diary type have been criticised for various reasons. Woodward suggests that they are disruptive and confusing, others (O'Rourke 1998 & Nelson-Jones 1991) have commented on the disorganisation and sloppiness of many journal-writing exercises provoked by lack of structure, and to counter this, other more structured approaches [15] have been adopted. As part of the tradition of naturalistic inquiry however, "researchers chose not to control variables try not to intervene" (Bailey 1991: 61). It may be that the relatively unstructured nature of the data collected has its advantages, " a learner's diary may reveal aspects of the classroom experience that observation could never have captured, and that no-one would have thought of including as questions on a questionnaire" (Allwright & Bailey 1991: 4). In our own experience students have observed and commented on elements of the lesson to which we have not assigned particular importance. A reminder that many things

[15] One highly structured approach to these type of activities can be seen in the learning log, a specific type of structured learning journal which requires learners to apply themselves to Lewinian Experiential Learning Cycle as described by Kolb (1984) and thus to apply all the basic learning styles incorporated within in it.

happen in classrooms of which teachers are not always consciously aware yet they have made an impression of some kind on the students, "learner diaries, thus take the researcher beyond classroom behaviour and into the realms of cognitive, social, and affective processes in learning, as perceived by the learners" (Woodfield & Lazarus 1998: 315).

While learner diaries or journals may be used in classroom centred research they are also used as part of the required course work and as such may provide an additional element of course work on which to base assessment. Criticisms of learning journals include the difficulty and dilemmas of accurately assessing learner journals or diaries. For example in the case of learners whose mother tongue is not English, yet where the journals are written in English, to what degree should the level and accurate use of English influence the marks assigned to the work? Certainly sloppiness and insufficient application are elements which inevitably influence the teacher's perception of learners' work. Much therefore depends on the focus of the journal writing activity.

From our own experience in using learning journals in two specific contexts[16], similar problems to those observed by others have also emerged. Many questions have also been raised about the problems of assessment of learning journals. Yet viewed as a means of gaining feedback from students learning journals have much potential.

A similar concept to learner journals is embodied in 'action logging'. These are a variation of learning journals or diaries providing feedback for teachers gained from their students' perceptions of what has happened in class. Students simply write down briefly what happens in class and what they think and feel about the activities. (Murphey 1992). As such they provide information for the stimulation of reflective teaching. While learner diaries or journals represent an ongoing and cumulative collection of entries, action logs provide a more immediate means of acquiring ongoing feedback on activities carried out in class.

Logs are traces, as other methods are, of what happens in classes. But they are traces of what each individual student is thinking about what goes on. They allow teachers to grasp what the perceptions of the students are and avoid being trapped in a narrow feedback loop of their own, or their profession's criteria. They allow

[16] We have used learning journals on University pre-service teacher training courses with Spanish students in their final year of a degree in English Studies and also with second year Spanish University students in the subject 'Inglés Instrumental' (English for Instrumental Purposes).

teachers to see what may have caused problems for the consumers of their teaching, and what may have been wonderful but undervalued initially by the teacher. And they do make one think. (Murphey 1992: 20)

In our own exploratory uses of learning journals we have tended towards a relatively unstructured approach. We have given guidelines as to content, indicating the need to include both objective and subjective observations based on the material and activities done in class and also a degree of reflection on their own learning processes. While adopting a more structured approach in the future may certainly yield more information and focus student attention on for example their own learning styles and strategies as revealed through the activities and materials experienced in class, nevertheless we have found learning journals to be highly positive from several points of view.

- In subjects where the language which is being studied is also the medium of communication, as for example in the contexts we have mentioned above, learners journals provide useful information for teachers about the students' abilities to express themselves in English.

- They provide feedback as to how activities which have been done in the classroom have been perceived by the students and how they see them bearing on their learning experiences.

- They provide an opportunity for learners to crystallise their own thought and impressions. As the concept of a journal implies an ongoing endeavour they also allow for a more global overview of learning experiences which can be seen as an evolving scenario rather than a collection of isolated and perhaps disconnected events.

- While the additional work load implied for teachers is considerable, at the same time they allow teachers to know their students a little better than the usual class contact time allows and to see their students as individuals rather than as a group of people. From the point of view of creativity, learner journals can often reveal a degree of creativity on the part of students that may not come to light or be given expression in the normal course of events in a classroom. Factors like the constraints of the subject, the time available, the personality of the student (perhaps shy and unwilling to reveal things about themselves in class), all too often work against any evidence of creativity. Thus journals provide teachers with insights and feedback, vital to the teaching and learning process which would not otherwise be available.

- Being required to write a journal, diary or log makes students more consciously aware and attentive of what is going on rather than passively being in the class.

- In actually writing their entries they are at the same time reviewing what was done in class and what they think they learned, and thus consolidating the learning process. By recycling the content they are more likely to retain it.

- If students read each other's logs, they are reading about an experience which is common to all of them, in the process they may gain new perceptions of classroom activities. If they disagree or have widely different perceptions from their fellow students there is the possibility of sociocognitive conflict. This can have a destabilising effect on accepted beliefs and perceptions. As such this is positive, as it provides the opportunity trying out someone else's way of thinking, or looking at something. This can also happen when teachers read students logs or journals, nudging them out of complacency and repetitive classroom practices.

- Depending on how assessment of learner journals is dealt with, they can provide another means of evaluation and assessment which can contribute to more formal methods.

- From the point of view of creative teaching they can, as Murphey has suggested, help teachers 'avoid being trapped in a narrow feedback loop of their own, or their profession's criteria'. It is this aspect which makes the use of learner journals, diaries or logs, a most valuable tool for generating creative responses on the part of teachers.

3.2.3.3. LETTER WRITING:

One means of maintaining a dialogue with students and thereby gaining feedback into various aspects of the teaching learning process is through the exchange of letters, that is letters which are exchanged between teachers and learners. This is usually done on a one to one basis and the communication between teacher and student remains confidential. Rinvolucri (1996) has developed and explored the possibilities of this idea, which have useful applications in certain teaching learning situations, especially when working with small groups. In most teaching situations the extra workload put on teachers may be untenable on a regular basis, yet one can see how the experience could be useful for teachers and students. By extension,

the use of electronic mail may facilitate such processes making letter writing quick and informal. Although perhaps not in ways specifically designed to collect feedback some teachers and students especially in university contexts do already use email to correspond. While this is usually to deal with some aspects related to courses and studies one can see how access to the internet can open written communication possibilities between teachers and students at different levels and is particularly interesting in the teaching and learning of foreign languages.

3.2.3.4. LEARNER REFLECTION SECTIONS IN EFL COURSE BOOKS

Reflecting an increased interest in learner autonomy and learning styles **s**ome EFL course books now incorporate small sections at the end of each unit for learners to reflect on what they have learnt and why. However to what extent teachers actually encourage the use of these sections or exploit then in any way in class is unclear.

3.2.3.5. SPEAKING AND LISTENING TO STUDENTS

While there are varieties of ways of collecting feedback from students, perhaps one of the most obvious ways is from actually speaking to students. Chance comments, questions during or at the end of a class, use of tutorials all help to give us more information on which to base our teaching. In classrooms where the atmosphere is positive and encouraging discussions in class allowing students to share their ideas and experiences can be useful and informative for teacher and students alike.

3.2.3.6. IN-CLASS FEEDBACK ACTIVITIES

Within this category we would include activities, often requiring only a few minutes where students are invited to express their ideas, observations and experiences in response to a specific activity done in class. Or they are invited to add their own comments in a type of ongoing dialogue on a particular theme or topic which has been dealt with in class.

These short feedback activities can be applied to many areas and they can apply to the content of a class or the process. These are activities which remain open and permit a kind of ongoing dialogue to be maintained. During the course of the dialogue or in later reflection unexpected responses that we had not thought of or expected may be generated, new outcomes and possibilities may be incubated for teachers and students alike.

3.2.3.7. DIALOGUE AND FEEDBACK ON PRE- SERVICE TEACHER TRAINING COURSES

While many of the previous points have been applied to teaching in general, on teacher training courses, if we introduce trainee teachers to processes like these we may be increasing the chances that these processes may later be incorporated into their future classroom teaching. Trainees' personal beliefs and theories about teaching are greatly influenced by their experience as learners, and "in order to modify and enrich this theory, these experiences need to be made conscious" Halbach (1999: 185). In addition learner diaries or journals can be used on teacher training courses for evaluation, as a reflective tool and for teacher preparation (Halbach 1999, Jarvis 1992,Woodfield & Lazarus 1998).

From our own experience it has been extremely useful to introduce a variety of dialogue or feedback type activities in pre-service teacher training courses [17]. Doing so serves several purposes. While providing valuable tools for the teachers and students on teacher training courses, for example those we have mentioned above, also in the tradition of loop input, by experiencing processes like these for themselves within the context of training courses we also show that techniques like these might be incorporated into their own classroom teaching situations in the future. Woodward (1992: 5) points out that "trainees attending courses where a trainer is actively experimenting with process can lead, in turn to trainees making energetic and thoughtful attempts to provide appropriate and varied process in classes with their own language learners".

In pre-service teacher training courses we have used a variety of feedback techniques[18] and found that as well as providing useful information for the teacher trainer, they also provide an immediate and interesting means for the students for expressing their own thoughts as well as reacting to those of other students.

While there clearly are many teachers who do use feedback tools like learning or dialogue journals with their students to broaden and enrich the options open to them, working with Spanish university students in the second through to final year of their degree courses we have rarely come across any students who are familiar with the idea of learning journals or who have ever been asked to keep one by any teacher. Providing opportunities for students on pre-service training courses to experience different processes options is one way of helping to broaden their future

[17] Pre-service teacher training course modules for Spanish students of English Studies who intend to teach English as a Foreign Language

[18] For some specific examples of some feedback activities that we have used on teacher training courses see appendices 12,14 & 15.

options as classroom teachers. Woodward (1992) is of the opinion that how training courses are run are heavily dependent on the possibly small repertoire of process options that they have seen other people use and suggests that people's repertoires tend to shrink when they are deprived of new information and stimulus. Thus it behoves us as teacher trainers to provide a wide variety of process options for trainee teachers to experience for themselves. In addition it is important to plant the seeds of curiosity and ongoing discovery so that once involved in teaching their own classes they continue to broaden their knowledge and experience by attending conferences and courses, exchange ideas and experiences with colleagues and keep up to date with their reading, both in areas directly related to teaching and in other areas not so obviously linked with teaching but which provide interesting forms of cross-fertilisation.

3.3. Summary

Throughout this study we have followed the idea of teaching as an art relating it to other creative processes in that the outcome is influenced by events unfolding in the course of the action. If we take this standpoint, then any feedback from the most subtle to the more directly expressed that we might receive from students and which we respond to in a variety of ways and to different degrees, forms part of that unfolding quality and should not be ignored.

In addition and from the point of view of teaching creatively, if teachers are open and responsive to students contributions it keeps their teaching alive and organic and part of a continually evolving process. It helps avoid the 'stuck teaching' syndrome which we may all be in danger of falling into[19]. In the dialogue which can be created by programmes which incorporate student feedback teaching, different viewpoints or chance comments can trigger off in the mind of the teacher an idea for an activity based on the students experience, or a different approach to a tried and tested technique. Indeed by adopting a more open approach which gives value

[19] A metaphor can illustrate this idea. Teaching which is 'stuck' (see part 4, section IV) is rather like a pond. A pond unexposed to outside elements will stagnate, its surface become clogged with algae stifling any life which the pond may have supported. But a pond with water running in and out is the same pond but one which is continually renewed. The still surface of an undisturbed pond reflects an unbroken, unmoving image. Throw a pebble into the pond and the surface image will be broken, and myriads of new images generated. One small pebble can cause ripples that animate the whole surface of the pond. The surface may soon be returned to its previous calm state but the pond is no longer quite the same, a new pebble now lies in the pond subtly changing it forever. In a similar way if nothing shakes up our perceptions we continue to think what we have always thought, behave as we have always behaved. But a new idea, a new experience absorbed and assimilated becomes part of us, not necessarily visible but subtly changing us, continuing the process of personal growth and evolution.

to students responses it also encourages students to come up with contributions more freely knowing that they not simply required to reproduce information which has been already been given to them. By encouraging more student participation we are validating their contributions and in turn showing them how the teaching learning process can be a more open and dynamic one. It is in the juxtaposition of different points of view coming up against preconceived ideas that new possibilities or previously unconsidered possibilities emerge, keeping teachers and students involved in an evolving and ongoing process rather than rather trapped within an unchanging one.

All of these considerations reflect a shift in emphasis of the role of the teacher away from being a transmitter of knowledge towards being a facilitator of learning and as such one which emphasises the individuality of learners and implicit in all this the potential for creativity, both on the part of teachers and learners.

4. STATIC AND DYNAMIC TEACHING

In most descriptions of creativity, flexibility is seen as a key requirement. It is however a natural human tendency to fall back on previously established patterns of reacting and behaving.

> When life presents us with a problem it will be attacked in accordance with the code of rules which enabled us to deal with similar problems in the past. When the same task is encountered under relatively unchanging conditions in a monotonous environment, flexible skills will become stereotyped, flexible skills will degenerate into rigid patterns and the person will more and more resemble an automaton, governed by fixed habits, whose actions and ideas move in narrow grooves. He may be compared to an engine driver who must drive his train along fixed rails according to a fixed timetable. (Koestler 1989:118)

This tendency naturally affects teaching too. In some cases all flexibility is lost and predetermined patterns of teaching become the normal state. If the flexibility of creative teaching means being able to respond in different ways to different things suitably and in ways which facilitate learning, then the antithesis of creative teaching might be thought of as "stuck" teaching.

One way teaching can be kept alive and dynamic is for teachers to see their roles as involving their own ongoing learning as an integral part of of their development as

teachers. Underhill (1988) describes this as keeping oneself on the same side of the learning fence as one's students.

> This is the only way I can keep alive a sense of challenge and adventure in my career, and avoid getting in a rut. If I am in a rut, then so is my teaching, and then so are my students, and learning from a rut, is tedious, slow and uninspiring (4).

4.1 "Stuck teaching"

Taking the negative concept of "stuck teaching" as a starting point can throw up many useful insights. Challenging oneself to come up with opposing ideas can be illuminating and this technique of brainstorming dialectic poles is suggested by various writers (Csikszentmihalyi 1997, Maguire 2000[20], Prodromou 1999) to generate creative outcomes. In particular Csikszentmihalyi suggests it as a means of awareness raising leading to the possible adoption of different and more creative attitudes to life.

Head & Taylor (1997) suggest that seeking the polar opposites of characteristics of stuck teaching is a useful exercise in awareness raising for teachers interested in personal development within their field of teaching. As such a concept is totally incompatible with creative teaching, to seek the polar opposite is also a useful task for creative awareness raising and forces us to alter our perspectives and to come up with behaviours which set the framework for more flexible responsive and dynamic teaching.

4.1.1. Characteristics of 'stuck teaching'

Following Head and Taylor we suggest below a collection of what we interpret to be negative characteristics of teachers and teaching. If these characteristics predominate then the teaching which results fails to create the conditions necessary even for satisfactory classroom teaching and learning. Such characteristics are totally counter productive to creative teaching and learning.

- Inflexible
- Sticks rigidly to plans

[20] Electronic source

- Sees things from only one or very limited point of view
- Sees only one way of doing things, does things always in the same
- Unreceptive, to new ideas, to suggestions
- Unimaginative
- Uninquisitive, not curious
- Feels threatened by change, challenges, questions
- Boring and predictable
- Distant
- Has only one orientation, for example 'the subject'
- Likes to be 'in control'
- Sees safety in conformity
- Sees things and people neatly categorised, 'in boxes'
- Is content to always follows the book
- Is wary of new materials, new methods
- Is not prepared to develop and evolve, personally, professionally
- Looks for and finds excuses for not changing
- Prepares minimally, perhaps from the conviction that they have done it all before
- Kills enthusiasm in others
- Is discontent and discontent is very contagious, complaining, resentful and bitter
- Is stale, cynical
- Has little or dwindling enthusiasm for teaching
- Lack of interest in students
- Finds work a drag, moans a lot

- Projects blame onto others
- Has an 'Us and Them' syndrome way of looking at things, the enemy being the learners.

Challenges to come up with positive qualities to balance the negative ones can be a valuable awareness raising activity and might be carried out on teacher training and teacher development courses[21]. Of course simply listing opposites will not in itself bring about change. As we have suggested in Part 1 of this section by ignoring or assuming that there are areas that can be safely left aside, we may be implying that they are not worthy of consideration. Just as with raising the issue of creativity in discussion with future teachers, we can also raise awareness to the dangers of getting stuck into totally predictable teaching patterns.

4.1.2. Seeking the opposite of stuck teaching – working towards dynamic and creative teaching processes

For each of the above mentioned points we suggest below an alternative which moves towards the opposite swing of the pendulum. Such a swing brings into play the scenario where more dynamic and creative teaching processes can come to life.

- **Inflexibility**

  Flexibility that is reflected in a wide range of behavioural and methodological aspects in the classroom.

- **Sticks rigidly to plans**

  The ability and willingness to modify the plan in response to what is actually happening in the classroom. Occasionally it may mean abandoning the plan altogether if it seems necessary. Or if the lesson takes an interesting but unexpected turn the situation may be exploited to capitalise on the immediacy of the moment and the in the interest of the moment

[21] Teacher development courses are distinguished from teacher training courses in that the decision to attend is usually left to the discretion of the individual, rather than being an obligatory requisite in order to obtain a some qualification, and demonstrates that they are already committed to the idea of their personal development as teachers.

- **Sees things from only one or very limited point of view**

  Tries to see things from different points of view, which includes seeing issues from other peoples'[22] points of view including the learners

- **Sees only one way of doing things, does things always in the same way**

  Instead is prepared to try out other ways[23] of doing things, consults learners and responds to feedback.from them. Adopts reflective teaching practices and keeps up to date with evolving ideas and approaches in teaching, attends conferences, workshops etc.,

- **Unreceptive to new ideas and to suggestions**

  By contrast is open to new ideas suggestions and willing to give them a chance rather than too readily discounting them as unworkable or impractical

- **Unimaginative**

  Imaginative, enjoys playing with ideas and encouraging others to do so.

- **Uninquisitive, not curious**

  Curious. This reflects a constantly questioning attitude to teaching, to the students one teaches, to life.

- **Feels threatened by change, challenges, questions**

  Instead tries to come to terms with or welcome change, finds ways of dealing with for example tricky questions from learners and attempts to exploit rather than dismiss, looking at all such situations as positive. learning experiences

- **Boring and predictable**

  Interested and interesting and not always predictable[24]

---

[22] Interesting examples of activities in this vein which can be used with reference to teaching situations and in building positive interpersonal relationships in classrooms are to be found in Hoffman & Barkowiczt 1999, see also Revell and Norman 1997.

[23] The idea of exploring options in the classroom has been taken up by many writers, see for example Fanselow 1987& Stevick 1989. One aspect of the RSA Diploma in the Teaching of English as a Foreign Language, formally observed teaching practice, involved planning the lesson, teaching it, then later going through the plan to see what options and alternatives might have been taken up at various points in the lesson and what the possible consequences might have been. Thus at the same time as planning the lesson awareness was being raised as to possible alternatives

[24] We should bear in mind bear in mind that in Part 1 of this section students who took part in the creativity questionnaire overwhelmingly saw lack of creativity as being optimised by boredom, teachers who are boring and who provoke boredom in their students.

- **Distant**

  Instead of a distant, unapproachable figure, realises the importance of qualities like empathy and rapport and incorporates them into their teaching

- **One orientation**

  The orientation may be for example based always on the subject –many orientations, teaching, learning

- **Likes to be in control**

  Prepared to relinquish control in some situations, for example giving students responsibility in different classroom task

- **Sees safety in conformity**

  Sees nonconformity as a positive challenge

- **Sees things and people neatly categorised, in boxes**

  Does not see people and things as always easily put into categories, recognises the uniqueness of all things, and people and at the same time sees the interconnectedness of all things

- **Always follows "the book"**

  Doesn't always follow the book, feels restricted by the limitations books can impose on both teachers and learners and sees the need to include other materials as and when needed or just to make a change and introduce the unexpected from time to time

- **Wary of new materials, new methods**

  Ready and willing to try out new materials and methods

- **Not prepared to develop and evolve**

  Personally and professionally- sees life as an ongoing process of growth and development

- **Looks for and finds excuses for not changing**

  Accepts the idea of change and sees it as crucial for personal growth and evolution

- **Prepares minimally**

  Sees little need to plan, perhaps believing all has been done before. Even if lessons plans are not made in great detail as often happens with experience , one needs to have some kind of plan even if only a mental plan and have a repertoire of resources ready to draw upon

- **Kills enthusiasm in others**

  Instils enthusiasm and curiosity in others

- **Is discontent and discontentment is very contagious, complaining resentful and bitter**

  Tries to be positive and seek new solutions and change rather than complaining about things as they are.

- **Stale & cynical**

  Maintains a fresh, hopeful and optimistic view of life

- **Dwindling enthusiasm**

  Seeks ways to regenerate and maintain enthusiasm

- **Lack of interest in students**

  Sees the students as one of the most important resources in the classroom and recognises the symbiotic possibilities of creative teaching

- **Finds work a drag, moans a lot**

  Finds work and teaching an interesting challenge

- **Blame projected on others**

  Prepared to look at all sources of problems or even views problems as challenges which might open up new ways of doing things.

- **'Us and them' syndrome way of looking at things, views the students as the enemy**

  Anyone who views students this way should not be teaching and does much to create negative learning experiences for learners.

- ***Undermines students confidence***

  As above. A requisite of good learning situations is that learners should feel confident and able to take part without threat to their self confidence and self esteem. Therefore teachers need to help build students' confidence , empowering them to work towards achieving their potential

In a similar vein Maguire (2001)[25] offers ways to innovate and change learning in the classroom, describing the list as being a collaborative writing process which stemmed from a discussion on the "ten commandments for stifling change and innovation in any organisation". By changing the context to that of the classroom and transforming the list to positive commandments the following list resulted.

1. Regard any comments from the students with interest.
2. Authorise students to do certain things on their own initiative.
3. Ask students to find positive points in each other's work.
4. Be positive freely and let your students know they capable.
5. See doubts as an integral step in the learning process.
6. Delegate control to others (for example the students) on occasions.
7. Make decisions, such as methodology changes, examination dates or assessment openly with others. Keep students informed.
8. Repeat everything - even if they had been listening they may not have understood it the first time.
9. Try delegating, even for giving out handouts.
10. Believe that teachers are ongoing learners. That's why they are interested in teaching.

Taking into account the positive factors we have proposed here, which serve to highlight by contrast the negative characteristics of stuck teaching can help to build an image of the creative classroom. Here there is an atmosphere where curiosity and creativity is positively valued and seen as a natural state of affairs, and where real learning may lead to creative outcomes for learners and teachers.

[25] Electronic source

5. A WORKSHOP SESSION ON THE USE OF IMAGERY IN THE LANGUAGE CLASSROOM.

This is an account of some activities centred around the power of personal imagery and imagination and its possible applications in the classroom. The activities took place in a workshop session designed to raise awareness of the role that personal imagery plays in thinking and learning processes.

Language has the power to trigger off highly individual and personal responses in each and every one of us. This applies both in our native language and in other languages we may have or be learning. However the power of personal imagery and associations triggered by language is all to often ignored in teaching and learning. Precedence is given to logical, analytical and linear types of mental processing (typical of left brain processing modes) at the expense of right brain processing (holistic, intuitive, imaginative), which tends to be ignored in most educational processes and, we suggest fails to take advantage of the richness and variety of each individuals personal responses.

This is an area that is particularly relevant if we aim to encourage creativity in our students, through developing creative thinking or creative writing in students. Yet even making time for personal imagery in classrooms can be highly valuable even if it is not developed into concrete creative outcomes. The use of imagery can make learning experiences more personally meaningful and memorable relating new input to previously stored memories and associations. For language learning to be meaningful, words cannot exist in a vacuum. Just as in the mother tongue words do not float unconnected in our minds. Once we acquire new words they become inevitably associated in our minds with other words, with personal associations and with emotional responses.[26] If new language is not in some way linked to what we already have in our minds then it is unlikely to remain for long, and we will forget it. Yet too often we fail to create situations where learners can build links in their

[26] We can see how well chosen materials can have resonances for students even if we do not necessarily draw attention to them in class. One student wrote in his journal." We also did a dictation which was a bit long …. the dictation itself talks about child hood and I started to remember the school, my first steps in life. All my life passed through my mind just in a minute, and I started to remember old friends of mine and places where I had been as a child. For a while it seemed to me I was at school when I was only eight. But suddenly I returned to reality and continued with the matter. And I have nothing more to say because these two hours passed like if they were only one or half of one. Believe me memories about our childhood can make miracles" and other student commented that " The images of a luxurious palace came into my mind as I was trying to listen to the teacher. As we were talking about vocabulary I was going deeper inside that palace, It was very amusing 'imaging' myself living another life, trying to go into those strange customs. But I had to come back to this world and try to listen". (Second Year Spanish students of 'Inglés Instrumental', a core subject on a degree course in English Philology 2000)

minds with their existing knowledge. We fail to draw on the rich web of personal experience and association which every individual brings with them to the classroom.

5.1. The workshop: the participants and the conditions.

The workshop which lasted approximately an hour and a half was run on two separate occasions. Each time there were approximately 70-75 participants both male and female, which included students in second, third or fourth year of a degree course, graduates of English philology and practising teachers in a variety of different situations, both state system and private sector. It should be noted however that the feedback we collected does not differentiate in any way between participants.

5.2. The workshop conditions

Both workshops took place in a large classroom of the traditional lecture hall variety with fixed position working surfaces and benches in rows arranged in a gradient and as such were not conducive to the relaxed and informal atmosphere which would have been more suitable to the activities we had planned. The large number of people attending meant that the room was almost uncomfortably full and participants were forced to sit close to each other. The workshop formed part of a programme offered to participants attending the I*V Jornadas de Estudios Ingleses*[27] celebrated at the University of Jaén, November 2000.

5.3. Stages of the workshop.

5.3.1. Stage one: Opening activity

The title of the workshop, 'Zooming in on the picture - using imagery in language teaching' was projected onto a screen. Participants were asked to allow the words to resonate in their minds and to see what the title suggested to them. They were asked to jot down any ideas or associations either in words or in drawings or doodles. The initial response from both groups was minimal, nobody volunteering any ideas

[27] These 'Jornadas' on English Studies which have taken place every other year in the University of Jaén since 1994 have a multidisciplinary nature, combining Literature, Linguistics and Didactics and are organised by Research Group HUM 0271, in the Department of English Philology.

at all. When asked, most seem to imply that the title of the session suggested nothing at all to them. One or two said that 'zooming in' made them think of taking a picture, something to do with a camera.

It may well be that no one had given any thought at all to the subject of the workshop. We have observed how at conferences and similar events when parallel events are offered much deliberation is made as to which session to attend most of which centres around the little information which is available. They will do this by drawing on associations, by expectations and by a degree of prediction based on the words of the title (amongst other factors). Prediction is emphasised in as a key element in building expectations and generating interest in a topic. Lead-ins to reading and listening activities are common practice in foreign language teaching. In this case being asked to contribute right at the beginning of a session may have been an unusual experience for participants who expect to have the content of a course or workshop spelt out to them at the outset. Whatever the reasons for the lack of response it seems that title of the workshop provoked few associations in the participants or that if it did, they were reluctant to divulge them in front of a large group of participants. Our idea had been to demonstrate how our personal associations can colour our expectations. At this first stage of the workshop, we assumed that personal involvement, if it occurred at all, was at a very low level.

5.3.2. Stage two: Guided visualisation

At this stage we invited participants to experience a guided visualisation, "Waterfall of white light"[28]. Prior to the activity, a brief outline of the type of activity was given and it was suggested that students try to put themselves in a relaxed yet attentive position and to close their eyes in order to be able to concentrate better. The lights in the room were subdued and gentle music was put on in the background.

This activity was included in the workshop with various aims in mind.

- To put participants into a relaxed physical and mental state
- To encourage participants to draw on their own personal associations and imagery in response to the words spoken aloud by the presenter.
- To collect feedback from the activity, which served a dual purpose;

[28] This visualisation activity appears in Appendix 5

1. It allowed participants to reflect on and later crystallise in words the experiences triggered by the activity

2. It allowed us to collect written feedback from the activity.

- To raise awareness to the degree to which each individual is able to respond to words and how those words trigger off associations and personal responses which can involve all the senses.

At the end of the guided visualisation, there was a gentle murmuring of responses while people came back to the reality of the classroom and participants were invited to share or exchange their reactions with others if, and only if, they wished. Written feedback was not mentioned at this stage.

5.3.3. Stage three: supporting information

At this stage and with participants already having experienced for themselves elements of the theoretical underpinnings of the session, we presented them with some key points on an overhead projector. A handout was also provided on which the main points were as follows:

- Language learning deals with words, and words are not encoded in isolation in our memories, they come with a whole range of possible associations, for example; visual, auditory, kinaesthetic, pleasant, unpleasant etc.,

- Information which comes into our consciousness, which includes information related to a second or foreign language, is processed by a 'dual encoding' system which uses imagery and verbal codes

- Emotion interacts with those verbal and imaging codes.

- Most educational systems are directed towards ways of thinking and learning which ignore imagery and the role of emotion in learning and thinking. They focus on left brain oriented processes at the expense of right brain oriented processes.

- Putting the focus mainly on verbal thinking can reduce the capacity to use images and the imagination.

- By drawing more on imagery and imagination in teaching and learning we can increase the learning capacity.

Then followed a brief outline of what has generally been accepted as the main types of thinking processes associated with left and right brain hemispheres, simplified thus:

Tasks 'preferred' by left brain hemisphere	**Tasks 'preferred' by right brain hemisphere**
Time oriented tasks	Space oriented tasks
Doing first things first	Three dimensional images
Step by step tasks	Patterns
Sequential analysis	Connections
Logic	Synthesising tasks, whole view
Verbal tasks	Non verbal tasks
Facts, lists, computation	Images, pictures, metaphors, Dreams, insight and intuition

This scheme was adapted from Edwards. B. 1999 *Drawing on the Right Side of the Brain.*

5.3.4. Stage four: poetry reading

Thus armed with some practical experiences of working with personal imagery through the guided visualisation activity, and some key theoretical considerations we proceeded to the next stage of the session.

This involved the reading aloud of a short and easy to understand poem. A key factor in the poem was the name of a particular fruit so it was important that everyone was familiar with it. So as not to be a block to the understanding of the poem we involved participants in a pre- listening activity. They were asked to call out the names of some fruit. Some of the fruit were suggested were; an orange, a banana, an apple, a strawberry, a watermelon, a mango. With each of these contributions participants were asked to let the image of the fruit come into their minds together with any other associations such as the colour, the feel of the fruit, its weight and surface texture, the sensation one would have on biting into the fruit, the taste and so on. 'Plum' was elicited by describing the size and colour of the fruit.

The poem, 'This is just to say' was read twice. The participants were asked to listen and encouraged to let the words resonate for them and trigger off imagery and

sensory responses when possible. No written response or feedback was asked for at this stage.

This is just to say. [29]

I have eaten
the plums
that were in
the icebox

and which
you were probably
saving
for breakfast

Forgive me
They were delicious
So sweet
and so cold.

5.3.5. Stage five: developing awareness of sensory imagery modes

Reference was made to the fact that some people may have had predominantly visual images, others perhaps gustatory or kinaesthetic or a combination of all of these sensory modes while listening to the poem. It was also pointed out that not everyone would experience the poem with the same intensity, if at all, and that many people have a tendency to respond more strongly in one sensory mode than another. To allow participants the opportunity to experiment with different sensory imaging modes we provided them with a collection of sensory stimuli to which they were asked to respond individually and note the ease with which they were able to generate their own personal imagery, by assigning each item accordingly: **2** if they were able to produce an internal representation or image very easily, **1** if they were able to produce some kind of image and **0** if they were unable to produce any kind of sensory image at all. It was previously pointed out to participants that this in no way constituted any kind of test or external evaluation of their ability to produce images. Rather it was intended as a kind of self-assessment to ascertain if one was

[29] "*This is just to say*" by William Carlos Williams. 1883-1963.

able to produce imagery more predominantly in one area than another. It was also suggested that while it is useful to know in which area one is stronger (this can be a useful insight for teachers who may unwittingly impose their own preferred (even if unconscious) sensory mode on learners. It can also be interesting and personally rewarding to hone our sensory imaging abilities and thus enrich our personal sensory experiences. In addition drawing on our sensory responses can be an important element in creativity.

Participants were given a handout with the sensory triggers written on it, but the items were also read out loud so that they could be mentally registered in aural mode as well as the written word. Constraints of time meant that the process was carried out more quickly than was perhaps ideal. Carried out in different circumstances, for example working alone, one would be able to devote the adequate amount of time for generating each individual response. The sensory imagery questionnaire[30] used was as follows:

1. Visual **- Visualise the following:**

A candle flame
A red sunset
Swans flying
A hand writing your name on a black board
A red triangle on green paper
A three digit number written in blue on a white board
Waves breaking on a beach
Yourself getting into a car
The outside of the building you live in.

2. Auditory**- Imagine the following sounds:**

A deep gong reverberating
A telephone ringing
A voice calling your name
The noise of traffic
Children playing

[30] Adapted from Lawlor.1988

A pigeon cooing
A jet aeroplane passing overhead
A stone falling into a lake
Voices in the next room
A favourite piece of music

3. **Kinaesthetic**- Imagine what it feels like to be:

Chopping wood energetically
Running slowly along a wet beach
Swimming in the sea
Playing a ball game
Driving a car

4. **Tactile** -Imagine the feeling of touching:

Sandpaper
Silk
An orange
A cat
Someone's hand

5.3.6. Stage six.

This stage was an activity in which participants were asked to represent ideas related to their personal development by visual means, either doodles or drawings which could be abstract or representative. The connection with the theme of the workshop was in the use of visual imagery to represent ideas rather than written forms and that the use of doodles or drawings would tap into more intuitive forms of expression. In addition using visual forms of representing ideas does not hamper participants by imposing possible limitations in their use of the target language. As there was insufficient time to follow up this activity in the workshop session we did not collect feedback from participants related to this activity. At the end of the activity participants were given a few moments to reflect on their responses to the activity.

5.3.7. Stage seven

This constituted the last stage of the workshop. Participants were asked to contribute to the session in the form of written feedback and to fill in the feedback form which had been given in to them. Feedback was to be focused on the experiences generated for each individual after experiencing the guided visualisation and listening to the short poem. Participants were reminded to mention the different sensory modes they had experienced. For example, did they respond with visual images, sound images, body sensations, feeling, taste, touch, smell, or movement? They were encouraged to be as specific as possible. During the time allocated for the feedback the same music was played as during the guided visualisation session and participants were given a few minutes to fill in their feedback forms. This was a process which simply required them to complete the following stem sentences:

- When I listened to the "waterfall of white light" visualisation I felt / experienced…..
- When I listened to the poem about the plums, I experienced it as if….

5.3.8. Participants responses to the activities

We give below a selection of the responses collected from the workshop participants. These fall into two sections. The first section gathers together the comments about experiences related to the guided visualisation activity. The second refers to experiences triggered by the reading of the poem. It should be noted that handing in feedback forms was not obligatory and not all participants did return them. One reason for this may have been that while in general the level of English of the participants was high, some, with low levels may have had difficulty understanding and fully participating in the activities. This would obviously have had a negative effect on their ability and willingness to return a feedback form. In general the feedback forms, apart from a few grammatical corrections, have not been corrected, as we did not wish to change the meaning of the participants' account of their experiences.

5.4. Guided visualisation feedback – first workshop session

When I listened to the waterfall of white light I felt / experienced…

We have grouped these responses into general categories suggested by the responses themselves, however there is some inevitable overlapping of content. The categories are as follows and are based on the style and content of the responses

1. Listing of adjectives (descriptions which relied on the listing of adjectives
2. Simple descriptions
3. Longer descriptions
4. Highly personal (responses which drew on personal associations or references, but not especially creative or imaginative**)**
5. Highly imaginative and personal (responses which reflect a highly personal and imaginative response)

1. Listing of adjectives

- Peace

2. Simple descriptions

- I felt completely relaxed. The water falling, cold water, a peaceful … not nervous, just calm.
- I hadn't got a body and I was flying without a fixed direction, I am happy, all is nice.
- I remembered the landscapes of the film "The Beach"
- I felt relaxed. I felt as if I was in another world outside these four walls.

  quietness, peace, self- confidence.
- A relaxed and positive sensation. Optimism.
- I experienced a very comfortable sensation of quietness and peace in my whole body.
- As if I were covered by a yellow liquid and not by a white one because the latter was shining too much

- The heat in my body, from my toes to my head. It is curious that it produced heat in me instead of cold.
- Myself becoming full of energy and ease. At the same time full of peace and quiet.
- I felt that I was very relaxed, quiet, and I had no problems, I would like to feel like that more often.
- As if a calming energy was coming to me. The light was golden and bright.
- I was flying and tried to get to the top of the waterfall. I was flying inside the waterfall.
- Calm, relaxed almost asleep.

3. Longer descriptions

- What I felt first was hot. A kind of hot sensation went through my body, Indeed I felt that in that moment my cold feet became hot. The next thing I felt was relaxation and a kind of relief. I really felt that my body was immersed in this waterfall.
- As if I was a glass recipient being filled with the kind of fluid which finally escapes, to fill me again. It was rather curious, since it was much more relaxing than the first time I worked on this activity
- I felt as if I were under that waterfall and water ran down on me, I was calm, relaxed. I forgot all my tensions and problems for a minute I was happy just thinking on myself…
- I saw the scene from the outside with a lot of fairies and smooth (soft / gentle?) Colours. The white light was brilliant for me, so I unconsciously turned it into a soft blue one. It was a little hard to open my eyes again because I was feeling very comfortable.
- I was very comfortable, and I felt something soothing running slowly on and inside my body. I 'saw' myself inside a dark cave and my body was the only light there.
- My body and my mind flying on the air and moving very slowly. I felt as if I was a new person, different from myself, from my thoughts.

- I felt heat inside my body and at the same time I relaxed very much. In fact at the beginning of the session, I was quite nervous, thank you.
- A very relaxed body, without any problems and no worries. It was like flying and touching heaven, with no weight in my body
- Fresh, relaxed. I remembered images from Walt Disney's films where almost real waterfalls appear.
- I felt comfortable and familiar, because I have sometimes practised visualisation, so I was very relaxed and there was a feeling of freedom and peace going through me.
- As if I was in a wonderful green place at night watching the way in which the water was falling down and I expected something nice to happen.
- I felt as if I was flying because my body was very light. I was in a beautiful and quiet place.
- I felt as if my body was light, it wasn't lead. I didn't feel any particular part of my body, I just felt it as a whole. Also I have the image of a sunny day, the colours I imagined were blue and yellow, really nice colours. I was really relaxed and calm.
- I felt very relaxed. I have to say that when I try to relax in my house I concentrate on a field with mountains, a river, a small house and so on.

4. Highly personal

- I saw myself next to the waterfall, but not under it, I could feel how cold the water was! The white light was very strange because it only focussed on my mind. I was alone near the waterfall and crossing it, was my boyfriend

5. Highly imaginative and personal

- That I was behind a waterfall of water, in a flat place of rock seeing the water falling, smelling it, but I was not touching it. At the top of that sort of cave there was a hole through which the light went inside and relaxed me.
- I felt as if I became part of the waterfall of white light and as if I flew or was freely suspended inside it. No strings attached, as if I was part of the light and the white light was part of it. I flew like a pure angel.

5.5. Guided visualisation - second workshop session

1. Listing of adjectives

- Feelings: warm, comfortable, relaxed
- Sensation, calm, relaxed, movements, feelings, virtual sound, new experience

2. Simple descriptions

- Tranquillity and calm. Satisfaction. Happy and sad at the same time.
- A new sensation. I felt quite relaxed as if my body were dead. A positive feeling!
- Very relaxed and very quiet. A different peace, I felt very well, almost I had my mind in white.
- Quite relaxed and calm as many other times that I've tried to practice a self- relax technique.
- Warm, calm, free, I was as a flower on the water.
- When I listened to the waterfall of white light I felt as if I was flying toward the sky.
- Relaxed, sure of myself, as if in that moment I was not in the class.

3. Longer descriptions

- I imagined that it was cool water and it was relaxing because it wasn't cold enough to annoy me. A very good sensation in imagining the background, very tall vegetation, sea near me …very good and very relaxed.
- Such a silence in the classroom that I suffered a cough attack and unfortunately I had to leave the room until I stopped coughing. Although I couldn't stay to listen, I can describe the relaxing atmosphere that could be breathed in by all.
- I felt really relaxed because the music, a room without lights, and a low voice helped me to feel this way.

- Well, I was in a state of peace and quiet, time didn't exist. The sounds were very sweet and quiet.
- I could see the waterfall and experienced it like water. I could imagine the water on my body and feel the movement like waves splashing gently on me.
- I felt very good, I was relaxing step by step. I was in "peace "with myself. I like this sensory mode to "wake-up" the students.
- I felt very relaxed because I was imagining a waterfall of clear water which I can see very clearly because there was a white light radiating from it. It is a useful way to get your stress out.
- Peace, quietness, freshness (that of water, after the heat). Emotion. Nature within me. Out of the world. Freedom. Feelings – a journey lead by the hand of music. Warmth. Smell of cleanness. I felt like a goddess.
- A sense of purity going through me, (so pure I wore a white dress). Liquid, water flowed over my body, but took my internal worries away, therefore I felt very relaxed, even after the listening of it.
- I felt a good sensation, all my body was relaxed, all things were OK. A mysterious feeling took my pain away, crossed my heart.
- I tried to concentrate but I didn't achieve it completely because I needed to be in a more comfortable position. Anyway, I was able to feel the soft sensation of a warm light throughout my body. It was very important to have my eyes closed.
- Peace, I really felt very relaxed, calm, just as if I was flying. I could imagine or visualise very clearly. And at the moment I am very stressed. This session has made me feel as I haven't felt for some time.35
- I experienced relaxing feelings during the process but it is very difficult for me to 'disconnect' my mind and my thoughts in these kind of experiences.
- It was not light for me, it was water and I felt the refreshing quality, and the life of that waterfall. Afterwards I saw myself filled up with white light and it was going out of me from my fingertips.

4. Highly personal responses

- A pleasant sensation as in the same way when I see my daughter smiling. It is a wonderful feeling, of relaxing and being well with myself. I am capable of forgetting any problem because I don't know the meaning of that word when I feel this sensation. In that moment I was sure of the happiness of my family.

- Very relaxed, but a bit sad too, because it makes me remember some memories not very good for me, I can't explain it. I don't know why that occurred to me but my soul felt a bit sad a bit depressed, but very relaxed. It was quite a good experience.

- I felt quiet, and alone, without problems, and for one moment I stayed in my own world.

- That there was a big and wonderful peace inside of my whole body, a sense of relaxation that could transcend even my body. I could feel how this same feeling was shared by all the people in the classroom

- That I can achieve success at anything being patient and waiting for good things to happen and avoiding thinking too much of bad experiences.

5. Highly imaginative and personal

- I felt very relaxed, very comfortable. I was under a not very big waterfall, incredibly beautiful. It had red flowers and was surrounded by trees. I was alone and little by little, my skin was getting wet. The water was refreshing, but not cold. There were bright colours, greens and blues, very vivid images came to my mind. If I could I would have stayed for years. It was an exciting sensation, but at the same time very relaxed.

- I felt as if my body was untangled from mundane things. I felt as if I were floating and something of the warmth of a summer day when you are sunbathing, a stream of dry air full of small, brilliant, dazzling stars surrounded my heart, my thoughts and perhaps my soul...

- I had a visual image of me when I was a child. I was with a boy. We were under a waterfall (of water) and I entered a cover and with no light and with no light place and then I felt something entering my head I could see the water light through my body while I was hearing our smiles…

- A very realistic experience. Once I plunged into a new reality created for us, I could see me there, feeling the cool water on my body, and a very strange and shocking point, I had wings. I had been converted into a kind of fairy or something similar and I was aware of the eyes of a person looking at me, watching the scene hidden behind a sort of bush..

5.5.1. Comments and observations on the feedback.

We divided the feedback into two groups which correspond to the different occasions on which the workshop was run. We did this because it was our perception, as the workshop presenter, that there was a different global response to the workshop on the first session compared to the second session. It had seemed that participants 'caught on' faster and were more ready to participate in the second workshop session and we felt that this would be reflected in their responses to the activities and shown in the feedback. However, the feedback does not, we believe, reflect any notable in participant responses.

As we mentioned at the outset, it is inevitable that there will be a degree of overlapping, which makes the task of categorising responses neatly, an impossible task. We would suggest that this is inevitable and reflects the diversity of reactions and complexity of the human response.

Some factors like relaxation, peace and calm are mentioned by many participants. Others mention the sensation of warmth, and this is something which is known to occur in states of deep relaxation. Some relaxation techniques for example, in yoga, draw attention to parts of the body which are relaxed and ask subjects to observe the sensation of warmth in those parts of the body. Several participants mentioned the sensation of flying, even though there were no explicit references to this in the guided visualisation. Some draw attention to the overall atmosphere of peace in the classroom. A couple of participants mentioned associations with films they had seen. (The Beach and Walt Disney films)

In our experience it is quite usual for some people to experience difficulty in participating fully in this type of activity. They may find it difficult to respond, find it strange to be with their eyes closed or find it difficult to concentrate. There were very few examples of this in the feedback we collected. One participant mentions the fact of not being in a comfortable position, making concentration difficult and another explained that it was difficult to disconnect and fully participate in this type of activity. As we commented earlier, not all participants returned a completed

feedback form and it may be that these people were ones who did not find it easy, for one reason or another, or did not understand the words of the guided visualisation well enough to be able to take part fully.

It is interesting to note how while some participants described the sensations provoked by the activity, many of which revolved around feelings of peace and relaxation, others travelled beyond that stage claiming to 'see' and experience elements not mentioned directly in the exercise. Often perceptions of sensory responses and memories were juxtaposed with highly imaginative elements. Others seem to have experiences triggered for them which did not show particularly imaginative responses but which seemed to resonate for them in other highly personal ways, as for example in the response which describes the feelings of family well being or inexplicable sadness yet in the end describing it as a good experience. Others extrapolated from the experience insights as for example the response which describes the conviction that personal success can be achieved by focussing on some positive aspects of their life and playing down other negative aspects.

Some of the responses reflect the fact that the participant has had previous experience of this type of activity, one revealing that they used visualising techniques at home to relax, while another made reference to the fact that the experience was stronger than the first time they had experienced something similar.

5.6. Feedback generated from listening to the poem 'This is just to say'

Feedback fell into three main categories:

1. In which the participant experienced the poem as if they were the one who had eaten the plums.

2. In which the experienced the poem as if they were the person who discovered that the plums had been eaten by someone else.

3. A collection of responses including indirect association evoked by the poem, no direct response at all and others.

It should be noted that as in the exercise on guided visualisation, some areas do overlap, although not to the same extent. Another element is that while some describe the 'experience' quite fully while limiting themselves the description of the fruit and eating it, others draw heavily on other personal connotations and associations.

5.6.1. Examples of participants' feedback from the poem - first session.

CATEGORY 1

- The plums were delicious, it seemed as if I had bitten one of them, and I could see it perfectly, its colours, it was really appetising, it was cool.
- As if I was in a summer afternoon, trying to quench my dry throat with some cold plums.
- I focused myself on the word 'breakfast' it was very significant for me, the smell of coffee, the bright light of the sun and a newspaper. The other words were not significant for me. I don't like cold fruit!
- I felt as if I had eaten a big plum and I felt the sensation in my mouth.
- I had eaten the plums, because I was thirsty and as the plums were cold…
- The plums were touching my teeth, very cold.
- I could eat it. My mouth was really expecting to eat that fruit. I could feel its taste.
- I was having a delicious breakfast. I could imagine how plums and other types of fruit smelt, the smell of coffee above all.
- I was eating them, I imagined them perfectly. The adjectives were meaningful, delicious, cold.
- I was about to eat those plums in the country.
- I was eating those plums so cold.
- It was me who would be touching the plum and making myself ready to bite the plum, I felt the contact with my lips and I liked it.
- I was the person who found the plums had disappeared and I felt angry because I would have liked to eat them.
- I was eating them, tasting their softness, and I don't like them!
- As if I were eating one, something delicious and I compared mentally with being with my girlfriend.
- I was more hungry than I have ever been. I even began to produce saliva in my mouth.

- I was in my house, I felt hungry and so I went to the fridge and took a black plum. Then I ate it. I could feel its cold on my teeth and it calmed my thirst.
- I was the one who was uttering the words. I felt hungry and my mouth became thirsty.
- I was there touching the cold iced plums, taking just one of them (I don't know why, maybe because I don't like them), peeling it, its sticky liquid through my fingers- eating it and licking the liquid all over my lips. It's a good flavour, licking my fingers.
- I could taste them because the word 'sweet' was very attractive. I also felt the cool of the peel.
- I was the person who was eating the plum. It is only a moment for me, the most delicious plum I've ever eaten.
- I imagined it as (here includes a small drawing of a little devil) –he feels very well but, really he feels like a little devil.
- It was something very desired. Something I desired strongly but couldn't get by any means. Something desirable but difficult to touch for it is 'delicious' and 'cold'
- I was devouring them, I could taste them.
- It was me who would be touching the plums and making myself ready to bite the plum. I felt the contact with my lips and I liked it.

CATEGORY 2

- I was feeling surprised early in the morning at the vision of the open fridge without them. It was more a visual than an auditory or tactile sensation
- I was visualising the situation (someone finding a note with this poem and complaining about the fact of having nothing left for breakfast). Hungry and sleepy.

CATEGORY 3

- It has a sexual connotation. Ripened fruit. Plums in my mouth.
- I felt hungry
- Nothing. (I'm sorry)
- I haven't experienced much, I mean, I did not have clear images of the words. I just could see how the words were flying over the room, and the gestures you made to 'represent' the poem. 'Cold and delicious' are the key words.

5.6.2. Examples of participants' feedback from the poem- second session.

CATEGORY 1

- I was hungry. I wasn't hungry before, but when you read the poem and I listened to one person telling the other that s/he had eaten what was for breakfast…I felt as if I was the person s/he is telling it to.
- It was a good experience, I could feel the taste, the smell of all the fruits I had in mind.
- I had been the one who had eaten the plums and I could almost experience not their flavour, but their fresh sensation.
- I was the person eating those delicious plums and could feel the taste, the smell and even the weight and the shape of the plums.
- As if water were running through my lips, as if fresh air with exotic scents entered a window, half open in spring, as if I were tasting the fruit described and as if tasting this fruit were the most important thing in the whole universe.
- I was the one who was eating them, taking one of them with my whole hand and feeling its fresh taste, its liquid filling my whole mouth.
- I was really eating those plums, I could really feel the coldness from the fridge. The repetition of some sounds and the way the poem started and was organised, gave me the real feeling of touch, taste, not so smell (I don't know why) apart from other feelings outside the sensory field (if that could ever be)

- It was me who ate the plums, and someone was watching me, not in an angry way, but in silence. It is strange but I didn't feel bad, because I noticed that the person looking at me treated me something like it was a childish deed.

CATEGORY 2

- I was a bit angry, for it is like waiting a long time for something and when you are about to get it someone else has already taken it.

CATEGORY 3

- I have not experienced a particular sensation except a kind of closeness to the words the teacher was saying and a special sensation of freedom.
- It was a mouth-watering poem. I wanted to taste fruit.
- I am sorry to say that it meant almost nothing to me for I do not like plums and the most I could feel was that it was me who had been left with no plums!
- Hearing the narrator's voice and what he or she says, and the way it is read, could make anyone think that the best thing that could have ever happened is this"I' eating the plums.

5.7. Comments and observations on feedback from the poem reading

In this activity we see a much more focused view reflected. This is what we would expect as the poem experience itself was much more focused and the participants had already been prepared with the pre- listening activity. The references to all the different sensory modes is also notable as attention had been drawn to these aspects in the theoretical part of the presentation.

The use of poetry in foreign language classrooms is known to be a rich and rewarding resource. If the focus is put on individual interpretation rather than critical analysis and learners are positively encouraged to explore the personal resonances evoked in them, it can be a particularly fruitful area to explore in the classroom. We can see from the feedback collected that focusing on the responses generated by listening to a very short poem, a wide and rich range of sensory responses can result. In

addition exposing learners to poems in a way which emphasises their own active participation as listeners underlines the charm and fascination of poetry. Poems, like other forms of art, express the ideas of the poet, but also call on the reader or listener to contribute and make the poem 'their own' by drawing on their own personal imagery. Thus as a means of making poetry more accessible and meaningful to learners, relating it to their own experience is a valuable and rewarding tool. In this workshop we focused on the internal experience for each participant, perhaps helping to make the poem more meaningful for many of them both by the focus on sensory triggers and also in the later writing up of their experiences. Techniques like this suggest that this can be a means of tapping into the imagination and creative responses of learners. Leaving the activity at the stage we did in this workshop may be one way but it also suggests many ways in which learners could be helped to develop their own creative writing of poems and prose.

5.7.1. Some general comments and observations arising from the imagery workshop.

Of the many observations to be drawn from this workshop several important points stand out. If we are prepared to devote a small amount of time to raising awareness of the importance of personal imagery in mental processes like thinking and learning we, as teachers, may be pleasantly surprised by the results. Learners too may be pleasantly surprised at the importance which is given to their own responses to input of various types in the classroom. By providing input which caters for a variety of different sensory modes and by allowing students to draw on their own personal imagery systems we are acknowledging the individuality of our students rather than treating them as a homogenous group.

We are also encouraging students to draw on areas of experience which are all too often ignored and which as a result fall into disuse and become difficult to tap into. In using activities which draw on our learners' imagination and imagery we are encouraging their creativity. In providing activities which calm them and which instil relaxation and peace we are creating learning atmospheres which are non-threatening and confidence building. While this type of atmosphere may not always be suitable, it most certainly is desirable if we wish to encourage creativity in learners. The mental states provoked by guided visualisations encourage those types of mental states which are known to produce the type of consciousness which is less focused, more global and intuitive and imaginative, and thus more likely to lead to creative outcomes than the states of highly focused consciousness that we often demand of students when we focus on typically left brain modes of thinking, and for which there is clearly a place.

What is important is balance and too much education is directed towards highly focused states of mind and very little to the more intuitive and imaginative ways of thinking. Teachers battling in state education systems all too often insist that these types of activities are totally impossible for various reasons. They most commonly say that there is no time for such luxuries and that in any case the students, and they are usually referring to adolescents, would find them silly and patronising and a waste of time. We would suggest that activities like guided visualisations can lend themselves to many teaching situations but that they are too readily ruled out and prejudged by pressurised teachers. An approach may be to introduce activities like this very gradually and in a sensitive way, which takes into account the feelings of the learners, it might just be that the few minutes spent on these types of activities, given a fair chance may provide unexpected insights for both learners and teachers.

Personal imagery can be evoked when working on many kinds of texts used in teaching. Often texts in course books and those provided by teachers for students to work on can be brought to life by going beyond the words of the writer and encouraging students to create their own mental imagery related to the text. Poetry is an obvious area for exploiting personal imagery in with language learners, although there is a tendency for it to be written off as too difficult, or not relevant [31], especially if the learners are 'difficult' adolescents. It is a question of finding poems or songs which in some way reflect the experience of learners or are meaningful for them in some way [32]. If one is prepared to look beyond the usual sources of poetry and the all too often negative associations that this brings of being 'difficult', 'boring' and not relevant to the lives and interests of our students we may well be rewarded with unexpectedly rich responses from our students.

We suggest that incorporating activities which draw more on the personal associations and imagery of students is an area which is severely under exploited in classroom learning situations. Tapping into the imagination, an area so often neglected in education beyond primary school levels, is the bedrock of creativity. Through it many areas of creative expression can be opened up in language classrooms showing learners mainly accustomed to the recycling of the creativity of others, that they too have the potential to produce their own creative outcomes.

---

[31] However this is not a belief held by everyone and sources of ideas for using poetry with language learners are to be found. See for example Maley, 1997, Maley & Duff 1989, Holmes & Moulton, 1997 & 2001. These examples exploit both existing poems and give inspiration and ideas for teachers and students writing their poems in the language classroom.

[32] There is such a wide source of poetry of all sorts available that finding examples which may be interesting and relevant to students need present no problem for the teacher who is committed to the idea of using poetry in the language classroom.

6. OBSERVATIONS ON TEACHING LANGUAGES TO ADULT BEGINNER LEARNERS IN SHORT INTENSIVE COURSES.

As we have discussed in other sections of this study, we view creative teaching as a process which requires creativity on the part of teachers and at the same time one which encourages creativity on the part of the learners. Although there is no reason why it should be so, it seems that creativity tends to be mainly associated with the teaching of young people or children. While there certainly are many teachers who do work in creative ways and who encourage creativity in the pupils they teach, unfortunately this is not always the case.

In this section we wish to draw on our experiences and observations from working with adults who have decided to start learning English, for one reason or another[33]. While our observations inevitably reflect many different teaching situations we have been involved in over a long period of time, our focus here is on a series of courses given in December 1999, December 2000, and January 2001.[34] When we say "working with", this is exactly what we mean to say. For while in the role of teacher and facilitator on such courses we are working with and alongside the learners[35]. But the choice of the term 'work' should not be taken to mean that it is a process that is not at the same time as being demanding, also enjoyable, fun, illuminating and rewarding for both teacher/ facilitator and learners alike.

---

[33] In the case of the particular teaching situations we draw on here, the main reason people gave for embarking on a course of English reflected fairly general objectives related to their personal lives and with perceived benefits for their work situations. More specifically the first course to be run included apart from a general introduction to English, some degree of coverage of specific vocabulary and linguistic functions required by participants in their daily duties. For example some people required a basic knowledge of expressions that would be useful to them in simple telephone conversations with English speakers. Others required some useful expressions and vocabulary to enable them to deal at a very basic level with English speaking visitors to buildings of special historical interest in Jaén, for example the 'Baños Arabes' / Arab Baths

[34] These courses were organised by the Diputación Provincial (County Council) of Jaén in Andalucia and were open to employees of the Diputación and Ayuntamientos (Town Councils) of the province of Jaén.

[35] The participants were people who had little or no English at all. Some were true beginners in that they had never had an English lesson in their lives. Some had studied French at school while others who had maybe studied a little English at school many years before had already written this experience off and classified themselves as beginners, although a more accurate term for them would be 'false beginners'. It is generally true to say that a few people in each course had a little more English than the majority of the others in the group, so that while the level of each group was intended to be homogenous, inevitably this is was something of an over generalisation. It is important to point out that even when participants had some previous knowledge of English it was mainly in their ability to recognise the written word, and not necessarily to be able to verbalise or to be able to recognise spoken English. This is a common factor in people who have been taught a language in a 'traditional' way, by which is usually meant a way which focuses on written forms, the study of grammar, translation and the manipulation of the language through written exercises. Very, very few have any idea of English pronunciation, as this is an aspect that is rarely, if ever dealt with in the education system here and therefore have problems in the production of English sounds and in their recognition. As adults there is the additional difficulty for some people in forming sounds which their vocal equipment has never previously been called upon to produce.

The structure of these courses was as follows; there were forty hours of class time available and these hours had to be imparted within a limited period of time which meant no course extended for longer than eight days in total. Thus the courses were by nature extremely intensive and apparently hardly suitable at first consideration, for people with little or no previous knowledge of English. It was obvious that the participants would be under quite extreme pressure and likely to feel overwhelmed at such a concentrated exposure to a new language. This was an important element to be taken into consideration in the planning of the course and in envisaging just how much and what material should be included, and how the material would be presented and practised.

6.1. Considerations in planning the courses.

Working closely together the two teachers involved drew on their own experience in forming a basic collection of elements which needed to be included in order to provide the course participants with a working basis of general English. A course book[36] more or less suitable to the perceived needs of the participants was decided upon although it was quite clear from the outset that no course book would completely have fulfilled our needs even if we had expected it to. In addition as we have mentioned above, one of the courses demanded an element of English for Specific Purposes (ESP)

6.1.1. Some considerations on the usefulness of course books

Decisions as to what course book to use in any given teaching situation and indeed on the advantages and disadvantages of using course books at all is a matter that has provoked much discussion in the field of English teaching for many years and at this point we do not intend to take up this argument. However, we may point out that the use of a course book has many advantages (if, of course it has been chosen judiciously bearing in mind the needs and interests of the learners and if its methodology is compatible with or adaptable to the teaching approach of the teacher(s) involved. When these conditions are not fulfilled the teaching/learning process may be hindered instead of helped, yet many teachers and learners do have to cope with materials that perhaps are not conducive to the particular teaching

[36] Bowker,D & P.Lodge 1997 Accelerate 1997 Heinemann ELT (Starter – a skills based short course)

and learning conditions which exist. We would suggest however, that it would be extremely rare that any course book completely fulfilled the needs of any particular group of students and their teacher. Indeed it is hard to imagine that anyone would wish to religiously follow the dictates of a course book. We do however recognise that course books provide a very useful aid to teachers and learners alike. To have to conjure up all lessons and be familiar with all that that involves would put a possibly unbearable burden on most teachers confronted with many, large, daily classes of students, the teachers themselves maybe lacking in experience and other available resources to render a course book an optional aspect.

For students too, the support of a course book is usually preferred, it provides something concrete which can be referred to, possibly too providing additional activities and exercises to be worked on out of class and being more practical than a collection of notes or photocopied materials.

Yet all this being said, it seems hard to imagine that any course book could really adequately and completely fulfil teachers' and students' needs. It is much more likely that a teacher uses a course book as a staple ingredient, and where it is permitted by the authorities, adapts and modifies some activities, leaves out other activities, substitutes some for different exercises and complements the book with other elements which serve to make the learning process more efficient, relevant, motivating and enjoyable for the students, and as a consequence, for the teacher too.

In the particular courses we base this discussion on, this last observation fully applies. Clearly, to adhere rigidly to a course book would considerably reduce the efficacy of such courses. We have to take into account a collection of complex and interrelated facts which all come into play on the coming together of such a group of people even if they all have the professed aim, to gain an introductory knowledge of English and to be able to use it in certain situations, even if with severe limitations.

Many of the elements we raise here are not of course restricted to these specific courses, they are important aspects which all concerned and committed teachers would wish to address and to encompass in their teaching. These include aspects such as; individual differences, learning styles, previous experience, expectations, self-image and so on. While all of these factors and others are important in most teaching learning situations there were other factors here which had to be taken into account.

Teaching adult learners and especially those who have decided to learn a new language or make some steps towards learning it and in a course of short but intensive duration puts some other key factors into the spotlight.

6.1.2. Learners' self esteem.

Important in any area of life, and especially so when one's performance puts one in the spotlight and in the focus of attention both with one's peers and with others one does not know. While anyone may feel self-conscious attempting to speak aloud in public, for adults learning a language from zero, the situation, if not handled sensitively, can make people feel vulnerable and even stupid. One's knowledge and experience of the world can seem suddenly diminished by the apparent inability to express oneself. It is frustrating not to be able to express oneself, as if one has been returned without any say in the matter to a state or stage when you are rendered dumb or when the possibilities for expressing oneself are so limited. The gift of speech has been taken away and maybe with it one's identity and self esteem. There can so easily be loss of face and the feeling that one is making a fool of oneself and teachers need to be highly aware and sensitive to all this. Children resort to tantrums to express their frustration at not being able to express themselves. A frustration which is very real, but which is not to be compared with the frustration of adults who are used to being able to say what they want to say … to be rendered dumb is not an easy state to come to terms with, especially when your inability to say what you want to say is all too obvious to those around you. When even the words you have mustered in the antechamber of speech refuse to perform as you want them to. The mouth is not biddable, the vocal equipment does not simply produce the sounds you want it to as with the native language. In this state, problems of recognising and producing sounds can provide real stumbling blocks to one's progress. While it is important to pay attention to individual differences in a class of children, it is just as important with adults. People who have made a decision to learn a language are vulnerable and just as likely to get lost by the wayside as learners at any other age, perhaps even more so.

Maintaining self esteem is thus an important issue as too is the building of rapport, both between teacher – student and between the students themselves, and in general creating a friendly and encouraging classroom atmosphere. So often in language teaching learning situations there are learners who are reluctant to speak in class, while others may seem quite happy to take part.[37] Very common is the frequently expressed concept of feeling ridiculous[38] while speaking the target

[37] In some situations (large classes in high schools or universities, students have confessed that they like to take the opportunity to speak as much as possible, but have been made to feel uncomfortable by fellows students, and so decide to take a back seat. It is also the case that sometimes one or two individuals enjoy the limelight so much that they hardly give anyone else the opportunity to speak. All of these issues need to be dealt with by teachers so that the learning atmosphere is optimised for every one.

[38] In Spanish 'sentido de ridiculo'

language, which feels so different to the mother tongue, in public. Spanish learners of English are often surprised to discover that they are not alone in this respect and that people of other nationalities feel just the same when attempting to speak a foreign language.

6.1.3. Finding balance between input and consolidation

Another consideration in intensive courses of short duration is the need to pack in a great deal of new material. The challenge is to do it in such a way that the participants feel that they are making progress while coping with the quantity of new input. A sense of overload could easily lead to a switching off or dropping out by some participants, teachers therefore need to aim for a sensitive balance. Plenty of opportunities need to be provided for practice and consolidation of newly acquired language. In addition the input needs to be relevant and of interest to the participants and not demeaning in any way.

6.1.4. Classroom environment

Related to these considerations are others of equal importance. Not only do the material and the activities need to be carefully adjusted to suit the participants, so too does the classroom environment. Plenty of opportunities need to be built in to allow students time to relax and to enjoy themselves. Short breaks are vital to physically relax learners and also because breaks can go some way to facilitating the settling down and consolidation of new language, which does not just take place at conscious levels. A sensitive awareness on behalf of teachers should signal when to take a short break, when to make a change of activity, when to make a change in the pace of the lesson.

6.1.5. Accelerated learning

The term 'accelerated learning' seems apt here and may be interpreted in different ways. It may be taken at face value, that is we might take it to mean 'rapid learning'. However we should look at how rapid learning might be fostered. It certainly will not happen in situations where learners feel embarrassed, stressed and emotionally or physically uncomfortable. One should note that the physical conditions of the

room in which the classes are given may have an important effect on learning[39], thus a comfortable well equipped classroom may seem the ideal and both teachers and students will usually be appreciative of good working conditions. But good learning experiences can also happen in less than perfect physical conditions that have more to do with the atmosphere which is created in the learning area.

6.1.6. Identification with the 'new' language

Another important element to be considered especially when teaching adult learners and perhaps especially false beginners, of whom there are many who claim they have been learning English for years, is a lack of identification with the language. They cannot really take on board the target language. One result of this is sometimes the imposition of Spanish pronunciation onto English words, but even more fundamental is a deeply ingrained belief that the native language is the only true language for them.[40] They feel they are in some way relinquishing their true identity, of becoming submerged or even lost in the persona implied by the acquisition of another language and this is, sometimes albeit unconsciously, a very real obstacle to learning a language. Many writers including Arnold 1999, Dilts 1991 Puchta 1999 Schumann 1997, have pointed to the close association between language and identity and of the problems it poses for some reluctant learners. By contrast some learners of English and other presumably of other non-maternal languages sometimes express delight and a sense of arrival at finding that the target language has permeated into their way of being and that they are thinking in English

6.1.7. Not prejudging students.

Another related aspect which one must be aware of is that of prejudging students. This is every bit as applicable in teaching adults as in teaching younger learners. It is all too easy to make assumptions about the abilities or apparent attitudes of learners, whereas keeping an open mind will reveal different strengths, different facets and the different contributions that each individual in a group may bring. Thus each one in their own way helps to form and enrich a group of people who

---

[39] Some practical considerations in this respect are shown in Appendices 9, 10 & 11.

[40] An adult Spanish learner of English of our acquaintance once explained that for many Spaniards the main stumbling block to learning English or any other language for that matter was that the object we were working on, a table, would always remain 'una mesa' for them and no amount of exposure to English would ever change that constant unshakeable belief.

may initially been thrown together by chance, but who, even for a relatively short time form important elements of a new group dynamic. Prejudging students carries with it, the danger of the phenomenon of the self-fulfilling prophecy, whereby the expectations of the teacher as to the possible achievement or non achievement of students has a very real effect in shaping their actual performance..

Thus in addition to planning the actual content of the course and the activities which might be used to facilitate the learning process a whole range of other factors needs to be taken into account.

6.1.8. The balance between course structure and flexibility

A clear structure is obviously necessary for such courses, with a framework for the main content to be taught and learnt established in advance, but at the same time we would suggest that equally important is the element of flexibility on the part of the teachers involved. Building in reachable goals and positive achievements with the new language is every bit as important as teaching grammatical structures, linguistic functions and lexical items.

Thus we would suggest that the courses we focus on here called for a relatively high degree of creativity on the part of teachers. In accordance with our understanding of creativity in teaching however we also need to respect and encourage the creativity of learners. Dufeu (1994) has suggested, "to talk is creative, rather than a repetitive or simply imitative act" (21), and we need to provide opportunities for learners to "play with" and experiment with language to make it theirs, to internalise it and to use it to express their own interests and ideas. With expectations conditioned by traditional teaching methods beginners may initially feel that it will be a long time before they are able to express themselves in English, let alone to be able to respond to others in English, yet we believe that it is possible to get students using English within a very short time.

Learning a language on courses such as these should not be only about learning the grammar or the functions or the vocabulary, but in making the necessary steps however tentative at first to be able to communicate something to someone and indeed as is understood by the word communication, for the message to be understood. This necessarily involves playing with the language, experimenting with it, taking risks, more than anything using it and having a degree of success in the endeavour. This may seem difficult to inculcate in beginners yet we believe it is possible. This is not to imply that knowledge of grammar will not help considerably

to this end, but contrary to what many learners of English (and one supposes of other languages) may believe and which has been consolidated for them by an emphasis on the learning of grammar in state education systems and has become a deeply ingrained belief for many people, influencing their own perceptions of their ability to speak a language[41].

Thus the challenge for teachers of courses such as these, is the need to strive for a balance between the necessary content to be taught and the needs and interests of the participants. We have to build in opportunities for participants to experience a sense of achievement and to feel that they are making progress and assimilating the new language, that they are being enriched rather than being threatened or in danger of losing their identities.

This then is the crux of the matter. If one is to achieve these aims, bearing in mind all the factors we have previously touched upon, a creative approach has to be adopted. Rigidly sticking to plans and previously set objectives will not do. The whole process has to be one which responds in an ongoing way to what happens in the classroom and which takes into account the individual learners. Thus we return to the element of 'constraints versus flexibility' which we have suggested is an integral part of any creative process. Flexibility is required as an ongoing response to feedback from the students. Yet this is feedback which is received through a variety of signals, some not always obvious, but which the teacher has to "read" in order to ensure that overload, lack of understanding, feelings of inadequacy, do not become obstacles to learning. These elements clearly apply to any learning situation, but are made more acute by the intensive nature of courses such as these. As to the "end product" of the process, it should be rather be seen in the first positive steps towards a more long term goal, in planting the seeds of interest and pleasure in learning as way of personal enrichment on the way to learning the new language.

6.1.9. Ways of working towards positive and creative outcomes

As we have emphasised, flexibility is a vital element. In practical terms this might mean dealing with something that has come up in the lesson as a response to a doubt or question expressed by a student, or by spending more time on a point in

[41] An anecdote from our own experience may illustrate this point. A small group of students of English studies at the University of Jaén, in the third year of a five degree course, in 1990, asked in all sincerity if we could really understand them when they spoke English. Even though involved in a conversation in English at the time, they were still somehow reluctant to accept that their English really worked as a tool for communication, when they still had not completed their English studies.

response to difficulties unspoken but perceived by the teacher, or the acceptance that something needs to be set aside either for a time when it would be more suitable or even omitted altogether.

If we are prepared to read the flow of a class we may find we intuitively deal with areas which may be of more interest or more relevant to the students than our initial planning had allowed for. In our experience we have found this to be true on many occasions. Clearly this type of teaching requires a kind of juggling act on the part of the teacher. Many factors have to be kept in play all at the same time. It is easy to get thrown off course and lose balance, yet if one can keep things going the result may be very rewarding, for teacher and students alike. It requires skill and practice, yet it also requires an approach which draws on one's intuition, internalised skills and experience.

6.1.10. Other elements implicit for creative teaching on such courses are:

- The use of music
- Building in short and fairly frequent rest periods,
- Alternating periods of intensive study with lighter activities (considerations of pacing) and having a repertoire of short activities available to insert spontaneously when required,
- Attending not only to the material to be taught but also giving learners strategies and techniques for facilitating the learning process.
- Suggesting ways that students may continue and work on their learning out of the classroom situation,
- Remembering that students are people, each with their own previous experience, expectations and beliefs and who also have lives outside of the classroom.
- Creating a pleasant and encouraging atmosphere where people can do things with the new language.
- Building in success
- Ending each day on a high and positive note.

6.1.10.1. USE OF MUSIC

Using music in the classroom is well documented[42], but is still seriously unexploited in many teaching situations. On these courses we have found music to be invaluable and powerful in a variety of ways. We have used music[43] to create an atmosphere, to calm down, to animate, to work quietly to, to start or restart a session after a break, to simply relax to, to accompany guided imagery activities and so on. Here we refer to instrumental music or where the words are secondary to the music or where the focus has been on the music rather than the lyrics. However, songs are a marvellous resource in classrooms and especially in language classrooms. Most people find that words that are accompanied by music are often imprinted indelibly on their minds; many learners have the sounds of the words of songs recorded in their memories without necessarily being able to understand the meaning of the words. When the meanings are revealed the pleasure moves to a new level aided by understanding. Words and structures learnt within the context of songs are often far more memorable than those learnt in other ways. It really does seem that the rhythm of the music has a large part to play in the assimilation of the words and their meanings. Each teacher who has successfully used music as part of their teaching will have a collection of songs which are known to work in a variety of situations and which never fail. We have found it very fruitful to introduce songs into such courses and then later, perhaps at the end of a long session to put the song on again, the song acts as a positive anchor rekindling the memory and reanimating students so that even after a long intensive day of seven hours of English, the mood becomes upbeat and smiles replace the tired expressions on students' faces and they leave the classroom on a positive note with their batteries seemingly miraculously recharged. As an extension of this we have also found it highly positive to replay a small collection of the songs and music used during the course on the last day of the course. In this way all the positive anchors of the previous days are gathered together reinforcing the whole learning experience.

Subliminal music is absorbed and says something about way the teacher views the classroom environment. Some teachers find that music helps them to relax and this in turn sends a message to the students. In our experience this has triggered some very interesting and positive responses from students, in some curious way

---

[42] For example the importance of music in Suggestopedia, see also Campbell 1992 Jensen, 1995, Fletcher 2000, Gordon 1995, Murdock 1987, Murphey 1993,

[43] See Appendix 10.1 for some suggestions for music suitable for creating good learning environments.

releasing and liberating them from the limits of the language they are learning and relating it to their own personal experiences.[44]

6.1.10.2. REST PERIODS AND ALTERNATING PACE OF ACTIVITIES

It is absolutely vital for the general well being of everyone, teachers and students alike, and to optimise learning, that on intensive courses such as these, fairly frequent, but short breaks are made. These can be organised in various ways. In addition to longer planned breaks, students can leave the classroom for a few minutes to stretch their legs and change their surroundings briefly when concentration is seen to be flagging. But short breaks can also be taken in the classroom itself. These can be done in various ways. Short, relaxing, stretching and deep breathing exercises[45] can be extremely effective and often provoke laughs and smiles which in turn reduce stress and lighten the atmosphere, helping to create good classroom dynamics and bonding. In our experience activities like these come as something of a surprise to many people who have not previously associated this type of activity with classroom learning situations. If this is the case and where students seem doubtful, it is worth introducing them sensitively and gradually and if necessary explaining why you are asking them to do it. However all our experience points to the fact that students very soon come to recognise the advantages of such activities and come to look forward to them.

For the same reasons mentioned in the above paragraph, it is important to have a repertoire of short activities[46] available that can be readily slotted in to the lesson. These activities may be directly related to the theme of the lesson or the structure

---

[44] On one of these intensive courses a student wrote a poem to express the potency of music in his life, but which was triggered by the use of music in the various ways we have described above. This poem appears in Appendix 24. It is quite common for students on these courses to ask if they can make a copy of the music played during the course. The benefits of this may lie as much in the pleasure of listening to the music itself as to the positive anchor or memory it creates either consciously or unconsciously linked with the learning experience and may help to make the language learnt more easily remembered and accessed. On this particular course, in response to the songs we played in class a student unexpectedly brought in his own tape with his own collection of songs, some of which he now understood better thanks to the new language he had recently acquired. When simple things like this happen there is already a recognition of the learner's personal involvement in the language learning process.

[45] See Appendix 8 for suggestions for suitable activities, which we have used on these courses together with simple stretching and moving around for a minute or two which can revitalise and recharge flagging batteries.

[46] Many excellent publications on the market provide specific short activities see for example Five Minute Activities Ur & Wright 1997 which can be used as they are, to generate other ideas and variations Good teachers often evolve their own short activities in response to the class they are teaching and these are often the most relevant and useful.

being studied, but they can also be unrelated, thus providing a change of activity and recharging energy before returning to the main focus of the lesson or part of the lesson. Bearing in mind that one's concentration span[47] cannot be maintained at he same peak of attention for more than 30- 40 minutes, short activities can play a vital role in pacing classroom activities.

6.1.10.3. STRATEGIES AND TECHNIQUES FOR ONGOING STUDY

It is worth spending a little time on courses like these to give pointers to students as to how to maximise their learning. For example we should remind learners of the need to spend at least a few minutes every day to look at and in some way recycle the material they have learnt or practised during the day and to continually review material learnt in previous days of the course.

One useful technique for focusing on this in class at the end of a session, perhaps at the end of the day, is to play some relaxing, reflective music. Get students into a relaxed yet alert state for a few moments and then ask each participant to allow a recently learnt structure, expression or lexical item to surface in their minds. They call out these remembered items and the teacher writes them up. It is very useful to do this on a flip chart as at the end of the course, or every now and then,

[47] Much research has been on the brain's ability to retain information and interest. Palmer & Pope (1984) suggest that over a planned two hour period of work, even when one is in charge of one's own study or brain effort, the first half hour will be the most fruitful, after that slight feelings of restlessness and fatigue will increase, reducing one's ability to concentrate. (People do, of course have very different concentration spans, some are able maintain concentration and absorption for hours, especially when they are intrinsically motivated in what they are doing.) Towards the end of the second hour, at the anticipation of a rest, the brain's energy seems recharged. Palmer & Pope suggest that even if one has carried on working pushing oneself after the fall in energy and feels proud of the sustained effort, it may well be that one was operating at somewhere less than 40% of capacity and that for efficient individual study it would be more effective to break a chunk of 120 minutes into smaller, 25-30 minute chunks with very short breaks in between, thus maximising levels of retention and concentration. If this applies to individual, self-directed work, it must surely apply to areas of study and learning which students have imposed upon them by teachers or lecturers. Factors such as these are often ignored in normal classroom situations, either through ignorance or through the misguided belief that valuable teaching / learning time is being wasted, by taking short breaks in or between activities. The reality is that rather than wasting time, the time available would be much more profitably used if short breaks were taken, for not only do they allow the mind the time it needs to review what has been done, which is an automatic process that requires conscious effort, but that when one restarts work there will be extra energy available and time has been allowed for the brain to review and assimilate input. Woodward (1990) suggests some short activities which can be used at different points in the lesson which help to recharge energy levels and interest which, she suggests, can begin to drop to a low, between 10 – 15 minutes after the start of a lesson. In long lessons concentration can continue to drop away unless the students' attention is woken up for some reason or another, or if the teacher is aware and sensitive to the problems of naturally fading concentration and builds in short break activities. If concentration levels are known to drop as a natural phenomenon in students attending lessons of a normal length, on intensive courses, where lessons may continue over a period of five or six hours, any teacher who ignores this fact is in danger of losing their students interest and motivation completely.

the pages can be reviewed and each brainstorming or collection of remembered items remains as a permanent record. In addition and especially if the items have been added in different colours and in non linear or chronological form, but rather in mind map form and with drawings, these collections can act as useful triggers to other stored material reflecting the associative way of functioning of the brain. It is a logical extension of this to encourage the students themselves to write up their items and to extend the map by adding crosslinks and personal associations, further reinforcing their new knowledge.

In intensive courses like these one is only too aware that after intensive input of the course, without some kind of maintenance, consolidation and continuation of the learning process, the effort spent by teachers and students during the days of the course can quickly disappear. It is therefore useful to discuss this with the students and suggest specific ways in which they can maintain their knowledge and interest.[48]

6.1.10.4. STUDENTS HAVE LIVES OUTSIDE OF THE CLASSROOM.

This area is a large and complex one which we have touched on in our general background to the course and which we have looked in another section and includes aspects such as empathy and rapport. Important in any teaching learning situation, intensive courses put additional pressure on participants who are forced to spend long periods of contact time in the classroom.

6.1.10.5. BUILDING IN SUCCESS

It is absolutely vital that participants feel that they are making progress on short intensive courses, when their overwhelming feeling may be that their heads are being filled with new information which they have no time to process, understand let alone use for communicative purposes. Thus is it is extremely important that we design activities and opportunities for students to experience success. We have found that there are simple tasks which allow participants to feel that they have

[48] For example discussion can be started in class as to the different ways in which students might maintain interest, motivation and continue adding to their knowledge. This can be done through brainstorming techniques and the results can be made available to students. Students can be given information as to useful online learning sites on the Internet and it is useful to provide a handout containing such information for them to take away with them, see for example Appendix 10.2.

achieved something and, in addition expressed something of themselves even after relatively few hours of studying English.

One way is to set students joint tasks [49]or mini projects that can be worked on in groups and which help to make students feel more autonomous and with some control over their own learning and the choice of language. An excellent way of doing this is to encourage the use of a good dictionary, having previously spent some class time working with dictionaries, and to make oneself available as a facilitator and helper when required, but without attempting to control what the students actually want to say. Group work allows for a degree of individuality and creativity while at the same providing mutual support for people starting to explore and use English. Monitoring this type of work requires sensitivity, intuition on the part of the teacher, and a delicate touch when pointing out mistakes or areas which could be improved. It also requires respect for individuals, and leaving space for their personalities to shine through,

6.1.10.6. ENDING THE DAY'S CLASSES ON A HIGH

Another very important element often overlooked in teaching is to always attempt to end the class on a high note. While this is important in teaching in general, it takes on special meaning at the end of a long working day of seven hours intensive input and practice. It may seem easy and tempting to end the day by assigning some homework or just by letting the lesson peter out, but rounding off a session in such a way that leaves a good positive feeling has much to do with maintaining interest and motivation to carry on another day. There are many activities which can fulfil this objective, but the one which works best in our experience is using music to round off a session. We have mentioned earlier the positive and re-energising effects on students of hearing a song which they had learnt and enjoyed earlier be used to close the lesson reminding them of the earlier positive experience.

[49] These courses took place in a beautiful building, 'Hospital San Juan de Dios', situated in the old part of Jaén. The building has been lovingly restored preserving its characteristic original features and tastefully converted with modern comforts to make it into a perfect conference and teaching centre. On the third day of the course students were given group work tasks which involved finding out some basic facts about the building and some other elements which caught their attention.

6.2. Reflections: creative teaching and intensive courses

To summarise, intensive courses such as these can only really be successful if the students as individuals come away with the conviction that the course has been useful to them, that they have learnt something that they are able to use for communication even if in fairly simple ways, that they feel able to risk speaking aloud, and importantly that they are sufficiently motivated to wish to continue. Even if life gets in the way as it has a habit of doing, that the memory of the learning experience is positive enough to ensure an ongoing interest and desire to maintain and build on the initial experience.

Thus it is simply not enough to teach the language, we must always remember that we are primarily teaching people and facilitating in them the processes which will help them to make firm steps towards acquiring a language for communicative purposes. This applies in ongoing annual courses of two or three hours a week, but intensive courses require special and intensive efforts on behalf of teachers and students and provide a much more concentrated experience which puts demands on everyone involved. We would suggest that courses of this type to be successful require creativity on the part of teachers and should also, albeit within the constraints of time and limitation of language, provide opportunities for planting the seeds of creative language use in the students.

In section II of this study we have likened the process of teaching creatively to creative process as for example the creative process of an artist. Related to this we suggested that the main elements which are applicable to courses like these are the balance between the constraints imposed from outside and the flexibility of teachers to make the very best of the situation using the skills and experience at their disposal, reading the signs and responding to what is happening in the classroom and adjusting and adapting in response to the needs, interests and abilities of the learners. While the end product remains an elusive goal, we would be happy to think that the seeds of interest for the future, and a desire to carry on learning, have been firmed planted in good rich soil and well watered for continued growth.

6.2.1. Positive aspects of intensive courses

While we have discussed aspects of teaching intensive courses and being on the receiving end of them, we may have failed to emphasis the positive aspects of such courses. On every occasion when we have been involved in courses like these, the overwhelming impression one is left with at the end of so many hours intensive

output and organisation is a highly positive one. For short intensive courses do have advantages over longer more protracted courses which follow the more usual pattern of three hours a week stretching out over a long period of time. A momentum is built up and maintained, rather than being diluted by the long breaks in between classes on normal extensive courses, interest is maintained, less back tracking of previously taught material is required. (This is not to suggest that constant revision and recycling is not necessary on intensive courses, it is absolutely vital in the face of the constant load of new input).

Student attendance over extensive courses almost inevitably means some degree of student dropout. On intensive courses this does not happen, and group bonding and class dynamics is a notable element which aids considerably in the learning process. Within the group, personalities blossom much sooner and as individuals do not remain hidden within large anonymous classes, there exists that feeling of 'communitas' which we have discussed in Section III which also seems to facilitate the teaching and learning process. This takes much longer to establish on extensive courses, even if it is established at all. In short intensive courses everyone seems to be working together bound by a common goal, in which each and everyone, students and teachers alike, have to adapt, learn and evolve in a creative journey towards achieving a common goal.

The outcomes of some specific activities done on this course which exemplify points we have made in this discussion are included in Appendix 10.3.

7. CAN ANYONE BE CREATIVE TEACHER?

Of the countless studies[50] into the lives of highly creative people, those which best serve our study are those which see creativity as special and leading to highly creative outcomes, but which at the same time views it as a capacity which can be developed to a certain extent by lesser mortals. Whether creativity can be actually be taught seems open to discussion. Martindale (1989) has suggested that creativity is not difficult to teach, but difficult to learn and has viewed attempts to teach people to be more creative as meeting with little success. Eynsenck (1995) claims that attempts to develop the creativity of school children produce deceptive results and tests to discern improvement in creativity can be highly unreliable.

[50] See for example Gardner 1993, Gruber 1981, and Simonton 1988.

Yet many psychologists see creativity as something which can certainly be developed and improved. Nickerson (1999) has drawn out three main threads of the creativity conundrum. First, the importance of the genetic make up of the individual their biology, cognitive and motivational features personality together with the environment in which they have developed and lived, which includes factors, like personal history, family, education and society. Second is the belief that each individual with normal intelligence has the capacity or potential to be creative, although it is impossible to say to what degree. What seems to be clear is that the majority of people achieve far below their potential creative capacity. Third, is the idea that the development of the individual is subject to change and along with it the development of personal creative potential.At present there is a strong belief that creativity is possible in all sectors and at different levels within organisations, this is no less evident in the field of educational practice [51], as can be seen in the growth of bodies dedicated to the discussion and promotion of creativity at all levels.

Studies into the lives of highly creative people whose creativity has had the power to influence and change the lives of others and contribute to culture in a variety of powerful ways provides useful insights which may be applied to our everyday day lives. In one such study, (Csikszentmaihlyi 1997) information was collected through a series of in depth interviews where the interviewees were asked a whole series of questions on topics related to their lives and careers, their relationships, and their working habits and insights. The lives of the people studied were exceptional and represent levels of creativity and achievement that few people can hope to approach. Many writers have pointed to the near impossibility of moving from personal to historical creativity, and how many of us severely under achieve even in personal

[51] Within the British education system one example is a move towards innovation and creativity in school management. The Open University runs series of seminars on creativity in education in one such seminar on leadership to develop creative practitioners in the secondary school system (July 2000) T. Imison a member of the National Advisory Committee on Creative and Cultural Education whose report,All Our Futures: Creativity Culture and Education (The Robinson Report 1999) put forward a vision of how teacher creativity is beneficial to the pupils, the school, the community and teachers as well, regarding innovation as a central strategy to bring in new methods and ideas and to make changes.

She argued that: Innovations encourage review and reflection;

* Innovations release people from the constraints of increasing bureaucracy;

* Innovations encourage individual creativity and challenge;

* Innovations support risk taking;

* Innovation lead to a dynamic culture and a renewed interest in work.

A main theme was that her innovative leadership was mirrored by the staff and in turn by the students. She suggested attempts to create that risk taking, and the analysis of mistakes and failures underpinned her innovatory practice and a culture of «what if» permeated her approach As a leader she a culture that encouraged all teachers to be innovative.

creativity: But to live our lives more creatively is to enrich our life experience and to keep growing and evolving as individuals within an ever evolving world.

> To move from personal to cultural creativity one needs talent, training, and an enormous amount of good luck. Without access to a domain, and without the support of a field, a person has no chance of recognition. Even though personal creativity may not lead to fame and fortune, it can do something that from the individual's point of view is even more important: make day to day experiences more vivid, more enjoyable and more rewarding. When we live creatively, boredom is banished, and every moment holds the promise of a fresh discovery. Whether or not these discoveries enrich the world beyond our personal lives, living creatively links us with the process of evolution. (344)

It seems there is much to be learnt from examining the lives of highly creative people. Through the distillation of their approaches to life and the issues in which they are passionately and creatively involved, strategies emerge which can be applied to enrich and make more creative the everyday lives of everyone. It is important to realise that in the same way such strategies and ways of thinking can be applied to teaching and learning situations to make them in turn more meaningful, interesting and creative.

7.1. Childhood creativity

The seeds of creativity are present in childhood, they can be nurtured through the family background or through the early school years. Many of the creative people studied by Csikszentmihalyi were positively influenced and encouraged by relatives in the early years of their lives. Sometimes an individual's life course was dramatically directed by an influential character who acted as a mentor and catalyst in their lives helping them to develop latent talents unrecognised by others. Sometimes their creativity seems to have been triggered by the loss of a parent or close relative, the creative drive coming out of their own way of coming to terms with or dealing with the trauma suffered. Clearly some people have personality characteristics that predispose them to creative outcomes. What also seems to be true is that the potential creativity of children and its continuing growth through the teenage years and in to adulthood is all too often squashed and suffocated by education systems which short-sightedly set no store by creativity. As Pablo Picasso reputedly said "Every child is an artist, the problem is how to remain an artist when he grows up". If "living creatively links us with the process of evolution" then it should be a prime

concern for all those involved in education. This should not only apply to those involved in primary education, but also to secondary education and beyond, although from the lack of concern for any degree of creativity beyond the primary years one might be lead to believe that there was no place for creativity in these establishments, even Csikszentmihlayi seems to reflect this attitude, yet holds out hope that things can be changed. "We cannot change conditions in our own childhood that would make us more curious and thus enhance creativity; but we can change conditions for the next generation". (344)

From the distillation of the strategies and life approaches of highly creative people some important areas which have particular relevance in working towards more creative ways of living have been identified. We will look at these areas first from the point of view of fostering personal and then see how these ideas may be applied to creative teaching and the fostering of creativity in learners. These areas include:

- Curiosity and interest
- Cultivating 'flow' states
- Habits of strength
- Ways of thinking
- Internal traits

7.2. Curiosity and interest

An important step towards a more creative life is in kindling curiosity and interest in things for their own sake. Normal children are curious about everything but as they grow older many lose their awe and wonder at the richness and infinite variety of the world that surrounds them. Life becomes routine and more attention is paid to the pursuit of the predictable goals that have become programmed into our minds. We need to release some of the energy used up in such pursuits for the rekindling of curiosity which allows us to explore the world around us through fresh eyes and without the preconceptions through which we habitually tend to view our surroundings.

Curiosity is frequently seen as one of the key characteristics of creative people and it is a quality that creative people retain throughout their lives, well into old age.

Some qualities that Chopra (1993) has identified as being characteristics of creativity are that creative people are "childlike", they enjoy fantasy and play, they are not rigidly attached to any point of view, and although passionately committed to their creativity they remain always remain open to new possibilities.

7.2.1. Curiosity in teaching and learning

Curiosity is a necessary requisite for teachers, they should be willing to learn about themselves and their students, willing to try out new things, be prepared to see things from different points of view and above all maintain an open and interested attitude towards life and teaching. At the same time curiosity should be encouraged and developed in students. It is not enough to provide them with information. We need to foster their curiosity and encourage them to ask questions, to find out about themselves and about others, about things that make them different as well as the things they have in common. Yet again, we see how teaching a language is so special because so many opportunities arise for finding about oneself and one's fellow students, for exchanging views and opinions and delighting in the differences that can emerge if and when we make room for this to happen in the classroom. Many foreign language classroom activities work on finding things students have in common and these can help to bond and form cooperative working arrangements in the classroom. Yet if we pursue matters a little deeper the richness of variety in responses students becomes evident and is something which can enrich the way students see themselves and serve to remind teachers that behind each face and name on the list is a unique individual. In part 5 of this section we presented a variety of responses to imagery work and in Appendix 22 we suggest some activities which work on this element of finding how different people see, think, feel and respond in different ways.

Our everyday lives can be enriched by developing a questioning attitude, by not making assumptions, by looking for the differences, by trying to be surprised by something everyday. This applies equally to teaching. The more we look, the more we will see, the more we try out the more we will discover about our students and ourselves. Csikszentmihalyi suggests trying to surprise at least one person everyday by saying or doing something unexpected. 'comfortable routines are great when they save energy for doing what you really care about; but if you are still searching, they restrict and limit the future' (345). Teachers need to save energy for dealing with everyday matters and can save energy by using tried and tested approaches or techniques that they know will work but the element of surprise is also important. Often it is the surprise element in a lesson which makes it memorable and which

can serve as the peg of memory on which the rest of the lesson is anchored. Countless creative people in diverse fields[52] have emphasised the importance of keeping a diary. For some it is a way of discovering promising threads or lines for future development. Journal and laboratory logs make experiences more concrete and enduring. Many recognise that the sudden illuminating insight that flashes into the consciousness can just as easily disappear if not committed to paper. Such records can have different focuses and be done in different ways but in keeping with the idea of surprise. Csikszentmihalyi suggests writing down each evening the most surprising event that happened that day and one's own most surprising action. As with all ongoing and maintained journal type writing over a period of time patterns may emerge which may indicate an area of our lives that would be worth exploring in more depth. Also it is interesting to look back on what one has written, we may find we have changed our perspective or our opinions, things which are not so obvious if we do not commit them to paper. We may in fact be surprised at what we have written. Teachers wishing to sharpen their awareness and develop as teachers may find this a useful addition to their own journals or after lesson reflections. It could also be an interesting ongoing activity for students, which at the same time as sharpening their awareness of their own lives also provides an interesting and useful writing activity for language learners.

Most people's interest is sparked from time to time by something which briefly captures their attention, a song, an image, a flower. Sometimes it can lead to an idea or some line of pursuit and yet all too often we allow the initial burst of enthusiasm to fade and all then all the possible but as yet unborn outcomes fades too. We may feel we have no time to devote to such pursuits or that it is an area which is beyond our expertise. Yet if we do so we may be closing the doors of new and creative possibilities in our life and work. Reflecting on how best to implement these ideas and to actually start to put them into practice helps to bring about "a stirring of possibilities under the accustomed surface of daily experiences. It is the gathering of creative energy, the rebirth of curiosity that has been atrophied since childhood" (348).

7.3. Cultivating flow states

Flow has been described as the holistic sensation that people feel when they act with total involvement. This state can and does occur not only with highly creative

[52] See for example the emphasis put on personal writing of Cameron 1996 & 1997, Brande 1996.

people but in anyone who is involved in any activity which involves them, and on which for the duration of the experience, the outside world and distractions do not impinge. This state may occur for example in a surgeon in an operating theatre or a rock climber scaling a rock face but also and in many other less demanding situations, for someone involved in an engrossing hobby, or a child lost in a personally created, imaginary world.

If flow can be experienced in everyday situations then it should also possible to experience it in educational settings. Thus if we can master, and induce learners to master a flow state at will, the teaching-learning experience would be enhanced dramatically. It is not however so easy to change the perceptions of young people once these have been coloured by previous experiences and experiences which they see as boring. We must therefore consider ways in which we might foster 'flow' states in the classroom for in these states learning involves the learners, is interesting and is frequently perceived as effortless.

According to Csikszentmihalyi 'flow states' are characterised by *concentrated* and *focused attention* on the activity in question attention, a perceived *balance* between the effort put into the activity and the perceived rewards of that effort together with *control* on the part of the person involved rather than form outside agents.

7.3.1. Concentration of attention

Galan and Maguire (2001)[53] observing a group of teenagers deeply engrossed to the exclusion of all else in video games in a street arcade, "everyone following each twist and turn of the game with an air of cooperative complicity, no need for speaking" reflected how that degree of attention could work wonders if reproduced in classroom teaching situations. Is it ever possible to recreate the type of involvement or flow that those teenagers were experiencing within a classroom setting? How do we trigger these desired flows states?

Within the area of sports the phenomenon of flow is recognised consciously worked towards. Techniques which involve entering the flow state before a game or a race involve physical warm ups, stretching and ensuring a maximum supply of blood and oxygen to the muscles through abdominal breathing which vitalises all the body and at the same time stills the mind. Focused and prepared in this way sports people are ready to enter a state of utter concentration and application to the task

[53] Electronic Source <http://www.galeon.puntodepartida>

in hand. Other approaches combine a focus on psychological aspects, putting positive affirmations to the forefront to replace negative destructive ones. Goleman (1995) shows how the emotions can be subdued, allowing the task in hand to become effortless and stress free by the use of a feedback loop which reinforces concentration to the point where it takes on a force of its own. This is achieved because in flow state the cortical activity of the brain is subdued to a minimal level where energy is conserved and the normal 'chatter' of the brain is quietened. In this state of flow a person avoids the effects of emotions like anxiety or anger which can trigger unmanageable and defocusing thought patterns

7.3.2. Flow states in educational contexts

As teachers we may have been lucky enough to observe times when our students are in states of flow or highly focused attention. We may also be able to recall occasions when as teachers in a classroom we have ourselves experienced flow states. If the conditions are right the flow state of the teacher will spill over onto the students and viceversa, everyone involved in what they are doing and unaware of the time or the next class. But what type of conditions are necessary for this to happen?

Galan and Maguire (2001) claim to have found that certain types of classroom activities always produce these states of focused attention for their students. One example is when students are watching a film in the target language. If it is a well made film with a well-constructed plot it can lead viewers into a fiction world where the real world is temporarily left behind. They use certain strategies with their students, like stopping for short comprehension breaks, reminding students that understanding is reached not only by words but also by visual clues or their knowledge of life and stories. Gradually as the film progresses comprehension breaks are reduced. While all those learning a language will know that following a film in a foreign language is no easy task at the beginning, Galan and Maguire claim that the involvement or flow that their students experience enables them to understand the film. Also that in more lasting ways the positive experience helps to strengthen their beliefs in their own language learning abilities.

In our own experience techniques like guided visualisations and inductions also create the conditions for flow states. While these types of activities can simply be used to change state or to relax they can also be used to orientate students to work which is to follow, as suggested by Gordon (1995) and Murdock (1987) who use guided visualisations as a preparatory activity to for example a history or science

lesson. They can also provide the starting points for creative writing. When after the visualisation part of the activity the same music previously used is played again it serves as a powerful trigger to the sensory imagery activated in the first listening and helps to re-access the imagery initially triggered. Creative writing which results in this way is usually particularly vivid and personal and often bears little resemblance to writing generated by externally imposed topics. In our own experience guided visualisations are invaluable for calming students down and reducing examination stress and anxiety in general[54]. On several occasions after doing these activities in class students have observed how the calming and centring effect stayed with them during the day. Some groups asked if opportunities could be made for them to do these kind of activities before examinations.

Sharply focused attention is one way of getting into flow states, but paradoxically it also seems to be triggered by states in which for a time the concentration is not sharply focused. We have discussed in another section how relaxed states where the mind adopts a kind of soft focus allows access to mental states where concentration is not sharp but more diffused and in which images and ideas may rise to the surface of consciousness. This may act as an initial stage in the accessing of the more concentrated states required for flow states

7.3.3. Control and balance

Apart from the concentration of attention required to trigger flow states, Csikszentmihalyi identifies two other important components**,** control and balance. In any activity, if the person is able to exert some control over the activity which caters for their own needs, then the activity is perceived as more valuable. The implications for teaching are clearly that there should be at least some areas where the learner is given gradually more control rather than control being always imposed from outside, by the teacher. Also the task must offer achievable challenges, which thus increase the levels of complexity that are necessary to maintain flow states.

The other requirement for the maintenance of flow states is in achieving a balance between the perceived effort put into a task and what the person feels they have got out of it. Getting the balance right is important for it creates a type of cyclical spiralling effect as the task demands more effort the person needs to see that they

[54] The benefits brought about by activities like guided visualisations cut across disciplinary boundaries, as is demonstrated by their appearance on courses such as "Autoregulación energetica y calidad de vida" offered as a subject of free configuration option at the University of Jaén. 2000-01.

are achieving and to enjoy the effects that this produces. While in some games or sports the pay off may be immediate there are also occasions when pay off will be delayed and more long term. In relation to physical activities, 'when the player receives pay off in the form of interactive feedback from the game he can then adjust his effort enabling him to improve his playing' (Galan & Maguire 2001). In the area of language teaching this means that students need feedback on their progress, which should be an ongoing thing and not only that which is reflected in tests and examinations.

Balance can be interpreted in another way. When people feel involved and immersed in an activity they lose their anxiety and self-consciousness and they are not bored. When this happens there is equilibrium and flow states are easier to maintain.

7.3.4. Implications of flow states for creative teaching

Teachers need to be alert and sensitive to those occasions when flow states seem to occur naturally in their students, however brief, so that they can work on ways of building more opportunities for this fruitful state to occur. This might be done in various ways. We might observe for example that certain types of activities seem to produce states where students seem immersed in what they are doing and aim to include more of this type of activity into future lessons. While we can hopefully identify such occasions in class time if we cannot then perhaps we should think seriously about the aims of classroom teaching.

We could draw on areas more normally associated with out of class activities and see if there is a way to introduce similar activities into classroom practice from time to time. For example students may be encouraged to demonstrate a hobby or describe a particular interest of theirs to their fellow students. While this may be problematic in many subjects within the areas of language teaching almost any area of interest for students can be exploited as the students will need to express themselves through words, through actions and visuals too, all of which h will generate language in the classroom and thus fulfils several objectives at the same time.

We may observe that spending a few minutes on guided visualisations or brief relaxation or state changing activities seem to improve concentration and at the same time reduce anxiety and stress, and therefore aim to build in more short time slots for these types of activities in lesson time. We will also observe, as so many teachers do of the motivating effects of using music and song in the classroom and decide to really exploit songs for teaching (Adkins 1997, Murphey 1993). While it is

useful for teachers to hone their awareness to read the signs of what is happening in class it is also possible to get the students themselves to suggest activities or ways of working in class which might be usefully integrated into future lessons.

Teachers under pressure to teach the syllabus to bored and uninterested students usually complain that they have a hard enough time having to deal with the aspects of the curriculum which are imposed upon them and that there is certainly no time to devote to such apparently unrelated matters, all the time battling against states of mind and motivation levels which are far removed from flow states. But it is worth devoting time to activities which can help to change this state of affairs rather than maintaining things as they are even if they do not work.

Achieving balance in the two aspects we discussed above is another important area for consideration. In the first case we need to consider how we can help students perceive a balance between the effort they feel they have invested in a task and the personal pay off for them. Activities need to be meaningful, and learners need to feel that they are achieving something by doing them. Focusing on the end result of learning as passing an exam is not in itself enough. Along the way there need to be many stepping stones which build in a personal sense of achievement and recognition that one is making progress. One way we have found useful, is to feed back to students examples of their own work, writings, drawings, and comments into future lessons in a non-critical way. These might be shown on transparency or put up for a time on the walls of the classroom, or included in a class newspaper or magazine, or a student constructed website. Apart from giving value to students' contributions this also has an important side effect, it can open new doors and trigger off new ideas for receptive and open-minded teachers and for students too. Another way is in giving up more classroom time to student designed presentations which are destined to be done with the rest of the class participating in interactive ways[55]. This also allows for the increased investment of students from the point of view of challenge combined with increasing difficulty. We have particularly observed this in student presentations where students have invested time and effort in preparing a presentation, but do not always have much faith that others will be interested or that they will be able to perform satisfactorily using English in front of their fellow students. When they have finished their presentations they almost always find it was an enjoyable and useful experience and moreover that they could actually do it

[55] Examples of student prepared activities that our students (second year University students of 'Inglés Instrumental', a core subject of a degree course in English Philology at the University of Jaén) have chosen are quizzes, games, experimental activities using music for generating imagery, using songs, demonstrations, interactive talks, poetry readings.

and that others understood them and their use of English, something which many Spanish students experience severe self doubts about before trying attempting it.

7.4. Habits of strength

It is obviously necessary to deal with some areas of life in routine ways in order to minimise time effort and energy spent, but also to make more time available for creative work. In terms of releasing personal creativity, creative people seem able to recognise and exploit their own optimum ways of using the time and energy available to them. These may not coincide with the life patterns of others with whose lives they are bound up. It requires self-knowledge and acknowledgement that what may be best time for one is not necessarily the best for another. Areas which come in this category could include for example optimal times for eating and for productive work, times for quiet reflection and times for being creative. Family and social patterns may often impose times for doing things which may not be the best time for all. Thus to exploit the time and energy available sometimes it may be more important to pay attention to one's internal clock. In a similar vein and on a personal level we all have physical spaces where we work best. Sometimes unthinkingly we accept what is there when by consciously thinking about how the environment can influence us we may be able to increase our creative capacity. On personal levels this is an area which each individual can work on. Helping people to identify the conditions in which they think and work best can be a useful exercise. Another seemingly obvious area is to clearly identify the things we like and enjoy doing as compared to those which give us no pleasure or which we actively dislike. While we cannot always organise life to eliminate things we do not enjoy we may find more opportunities to focus on areas which are positive and fruitful for us if we have clearly identified them.

While much has been said about the importance of focused attention for the flow states characteristic of creative and productive states of mind, it is also important to maintain open and less focused states during which pointers to areas which would be fruitful to focus on later are allowed to emerge. Being able to switch at suitable times between focused and unfocused attention seems to be one of the main characteristics of the creative process (Brande 1996), providing a kind of two way traffic between conscious and unconscious process which encourages,

> a new synthesis of previously unconnected matrices of thought; a synthesis arrived at by "thinking aside", a temporary relinquishing of the rational controls in favour of the codes which govern the underground games of the mind.(Koestler 1989: 182)

Thus the main points to emerge are:

- Recognising the times best for us as individuals to carry out certain activities
- Time for reflection and relaxation is necessary
- The physical space we work in is important
- Find out what you like and do not like and try to build in more of the positive.

7.5. Applications to creative teaching.

While we accept that there are many things that the teacher cannot change, especially for those who work in closely controlled state education systems, consciously and positively thinking about how these points may be integrated into teaching may reveal elements which are in fact subject to some degree of change.

7.5.1. Recognising optimum times

While there is little we can do to change the hours set down on the timetable for teaching, teachers may notice for example that at certain times when their ideas flow better. This might indicate a time when more creative thinking and planning of lessons might be done. They may also notice that ideas may come to them at unexpected times and should be ready to jot down the idea to work on and develop when more time is available. Within the classroom teachers need to recognise that there are, out of the limited possibilities available, times when learners will be more or less responsive to the type of input and activities planned. In our experience when teachers make some effort to take into account learners' energy levels, for example in a class first thing in the morning or at the end of the day, by adapting the means of presentation, or the activities, or by providing some type of state changing activity for example, a game like activity, an energiser, or a relaxing activity, a difference can be made and is perceived by the learners. While it remains that important content needs to be taught and learnt rethinking the approach, even some small change can make a disproportionate difference to learner performance.

7.5.2. Time for reflection and relaxation

Times for thought and reflection, and times when the matter in hand is not consciously dealt with at all, are all recognised as crucial to creative processes. Teaching and learning are rarely put in the same category as creativity. Nor are reflection and relaxation given much consideration in learning and teaching. In other sections we have discussed the importance of reflection for both teachers and learners. Time to reflect on what has happened is important. It allows us to see how things fit together and for teachers reflective thinking provides the basis on which we make future decisions about our teaching. Encouraging learners to reflect on their own learning processes is important too and can be done by means of learning journals or other brief forms of noting down progress, strategies and areas understood and so on. While this can be done in written form there are also opportunities here for using drawing and mindmapping techniques. Similarly periods of relaxation need to be built in to lessons, this does not mean that lessons are seen as pools of tranquillity where students switch off completely from mental effort but that even very short periods where different levels of concentration are asked for, can help to maintain concentration and interest over the duration of the lesson.

7.5.3. Creative space

Within our personal lives we can carve out and personalise our working areas to make them more conducive to concentration and creativity, but teaching-learning situations which often are the least conducive to learning let alone creativity are more difficult and sometimes seen as impossible to change. Often in secondary and further education classrooms are boring, drab and uninspiring places. Companies who require creative outcomes from their employees recognise the importance of the surrounding environment in fostering creativity, yet this is given little or no importance in educational establishments. However most agree that a creative space must provide, in addition to freedom from typical and traditional restraints, " a sort of sanctuary where trial, error and failure are not only tolerated, but expected in the interests of progress" (Lloyd 1997) [56]. This type of environment is something that teachers can and should provide. If we understand the classroom environment as what goes on in that place then teachers and students can work together to devise ways of making the classroom a more motivating, inspiring and creative place to be. As a starting point we could consider the suggestions which appear in

[56] Electronic source

the mind map[57] which demonstrate an opening out of the limitations and expectations of the teacher centred classroom to make it a more learner centred place. This type of thinking can be translated into activities for learners to consider and take part in. Learners can think about and discuss the conditions that they find most conducive to study, listening reading writing or drawing. Learners could devise mind maps around this theme and discuss to what extent they could be implemented. The mind maps themselves can be put up on the classroom walls. Any work of this type generates language work as well as encouraging thinking and breaking out of set ways of thinking about the learning space.

7.5.4. Building in more of what one likes

This again may be an area which seems to leave little personal freedom for teachers working under pressure to complete a syllabus. Yet not many teachers find themselves in situations where everything they do is monitored from above. If they do they had better search for change in direction because while teaching which is over controlled and set down in advance may perhaps provide a supporting structure in some cases, for example for novice teachers, is unsustainable for any teacher who cares about what they are doing and has any spark of flexibility in them. It is not that whole lessons should be given up to the type of activities that the teacher likes, but that activities and ways of doing things in the classroom give teachers a chance to let their strengths and imagination shine through. There is a danger here however, as what the teacher enjoys should not necessary be seen as what the students like. However it is true that if a teacher has a particular interest or speciality and feels enthusiastic about it, if it is not overdone and forced on students, the teacher's enthusiasm will infect the learners. Certainly the contrary is true. If a teacher feels uncomfortable with a particular approach or technique their lack of enthusiasm will also affect learners. The answer as always lies in balance. As we are advocating creative teaching in this study, we are also suggesting that the set habits of teachers in planning and carrying out their lessons need to be examined and challenged in the light of what we know about maximising personal creativity. This inevitably involves trying out things which at first do not seem to be compatible with our previous ways of thinking, of keeping our minds open to new possibilities and gradually broadening our repertoire of activities and ways of being in the classroom. This applies to learners too and teachers should try to build into lessons things which the learners themselves find particularly enjoyable or useful. In addition

[57] See Appendix 9

in the cause of developing flexibility students should be encouraged to try out new activities and experiences. From our own experience it seems it is still relatively uncommon that students' opinions, ideas and preferences are taken in to account at all. This may be because some teachers see this as undermining their authority and diminishing or threatening their power in some way and unsure of the possible results of such actions. However changes like these can be introduced very gradually and even a tiny degree of change can trigger off unexpected and positive results.

7.5.5. Internal traits

It is generally accepted that it is not an easy task to change our long engrained patterns of thinking, feeling and acting, and our ways of using our psychic energy, some of which are more likely to result in personal creativity than others. Some of these characteristics are based on temperament and the particular genetic inheritance that makes one person shy, aggressive or extrovert. In turn these tendencies have over the years interacted with the social environment parents, family, friends and teachers through which some patterns are strongly set making it difficult to think, feel or act in any other way than what our personal traits allow. Many writers including Chopra 1993, Csikszentmihalyi 1997, Dilts 1991, believe that while it can be difficult it is not impossible to learn from the habits of highly creative people and to see how these might be applied to everyday life. Csikszentmihalyi (1997) has pointed out how observing the life habits of physically healthy people can give pointers to how to lead healthier, so it is possible to apply similar principles to our mental characteristics too. Gallwey (1974) who used analogies from the world of tennis to explore the power of inner motivation and its effect on outer performance pointed out that developmental learning is very often a process of unlearning old habits and recovering a childlike interest in experimentation and discovery

Maintaining lifestyles that reflect rigid ways of thinking or being entrapped in situations which are not compatible with our talents can block any creative energy we may have. Habits mean routine and economy of effort enabling us leave parts of our lives to routine, but the danger is when all of life is run on 'automatic pilot'.

> We learn by assimilating experiences and grouping them into ordered schemata, into stable patterns of unity in variety. They enable us to cope with events and situations by applying the rules of game appropriate to them. The matrices which pattern our perceptions, thoughts and activities are condensations of learning into habit…. Habits have varying degrees of flexibility; if they are often enough repeated under unchanging

> conditions, in a monotonous environment, they tend to become rigid and automatised (Koestler 1989: 44).

While habits and patterns of behaviour serve us well, indeed without them our daily lives would be an unbearable burden, if all our life is lived this way creative thinking has no chance of surfacing. De Bono (1976) sees the creative process as an interruption in the smooth flow of routine thought thus finding ways of breaking these patterns is important if we are to live creative lives.

7.6. Ways of breaking the patterns of habitual thought

7.6.1. Accessing other mental states

Koestler suggests two main ways of breaking habitual thought patterns:

- Tapping into dreaming and dream like states where rational thought is temporarily suspended,
- Seeking out escape from boredom and stagnation by responding to the flashes of insight which show a familiar situation or event in a new light and elicits a new response to it.

The problem here is that in states of mental stagnation and boredom we are less likely to have those flashes of insight and even if we do have them we may lack the required drive and energy to respond to them. It may then be necessary to force ourselves into patterns of behaviour which occasionally run contrary to the fixed patterns.

7.6.2. Changing perceptual position

Neuro Linguistic Programming views creative thinking as a matter of changing personal perspectives and O'Connor (1997) suggests the following strategy. **F**irstly a problem or situation is viewed from the point of view of the first person, how do you feel and think about the issue? Secondly, how would it appear from another person's point of view? The second position could be a significant other person involved in the problem, a mentor, a trusted friend, or a role model. Thirdly, is to view the issue from the outside, taking a systemic view. This allows one to see how different aspects of the issue fit together and puts distance between the person and the issue. Seen from a distance, as in an ariel view as compared to being on the

ground, things take on a completely different aspect. Interconnections can be seen, new patterns emerge which were not visible before, individual colours blend and small details become subordinate to the whole.

7.6.3. Developing polar opposites

Life leads us to develop and specialise in some areas more than others, in turn we develop and consolidate some character traits more than others. This leads to the neglect of traits that are complementary to the ones we have developed. 'If someone learns to be very competitive, he or she probably has a hard time co-operating, an intuitive, subjective person usually ends up mistrusting objectivity. Creative individuals, according to Csikszentmihalyi's study tend to develop traits which reflect both ends of the scale, but he believes that everyone can work towards strengthening the missing end of the polarity. "When an extrovert learns to experience the world like an introvert and viceversa, it is as if he or she discovered a whole missing dimension to the world" (360). Beliefs like these are also fundamental to Neuro Linguistic Programming which holds that even if patterns and habits in life are deeply entrenched, it is possible to change and modify our behaviour to bring about more positive and personally satisfying outcomes, of which living creatively is just one.

One way of making a start on developing and strengthening the traits we have neglected is to identify one's most obvious characteristics, and experiment with adopting the opposite stance. It is not easy breaking habits, in fact for some 'it is a little like breaking your own bones' (360) and many people have never stopped to reflect on what kind of person they are and how this manifests to themselves and others. Working on this area is another way of opening ourselves to different perspectives through which life can be enriched.

7.6.4. Applications to teaching and learning

We can explore these aspects from various points of view. One important repercussion comes from how our preconceptions influence our ways of categorising and dealing with people. It is very easy to always ask the same thing of someone and to base our opinion of them on that. If we build in opportunities for learners to select some areas of interest for themselves and to develop work based on those interests, we may end up seeing that student in a different way. Of course these qualities will have been innate in the student anyway but giving him or her a chance to shine can

radically change our views and expectations of that person. Much like the self-fulfilling prophecy applied to learners, where someone's beliefs about another's capabilities tends produce the expected results. The ability to put ourselves in different in different perceptual positions is an important consideration for a teachers, it helps one to step into another's shoes and to see how things look from that perspective. It is necessary in building empathy and rapport between teachers and learners and is a technique that can be exploited with multiple objectives in the classroom. It can help to increase awareness and sensitise learners to the points of view of others. This in turn can widen their own options and ways of seeing things. At the same time it is a real and authentic use of language.

One deceptively simple activity which we have used and which can be adapted to different levels and different cultural environments is 'What kind of person are you?[58]. This can help learners or anyone else to think about what kind of person they are by identifying themselves with a choice of two alternatives. Although it is a purely light hearted activity it provokes interesting discussions and can be used in different teaching contexts. On pre-service teacher training courses it provides a useful starting point for thinking about how our personal characteristics may influence the way we teach and learn.

7.7. Facilitating shifts from openness to closure

A key characteristic of creative people has been identified as the ability to alternate at different stages in the creative process between an openness of vision on one hand and a narrow focus and concentrated drive on the matter in hand on the other. If we can work towards developing this duality we are simulating modes of thought which encourage creative outcomes.

Good scientists and artists must let their minds roam playfully or they will not discover new facts, new patterns new relationships. At the same time they must also be able to evaluate critically every novelty they encounter, forget the spurious ones and then concentrate their minds on developing and realising the few that are promising (Csikszentmihalyi 1997: 361).

One way of working on this area is to follow the example of many creative people who have long recognised the value of committing the 'problem' to the unconscious mind by first posing the problem consciously then committing it to the unconscious

[58] See creativity activities, Appendix 24.

mind for it to work on, as encapsulated in the old advice when one has a decision to make or a problem to solve "sleep on it".

> Just as a problem can be consigned to the unconscious to work on, it also seems that a lot of learning goes on while we are asleep. We are not referring here to those theories that claim information fed into the brain while we sleep, in the form of recorded material, will be learnt and assimilated. Instead, the processing and assimilation of information presented to us, even material which we may feel overwhelmed by or not to have understand often seems to have been assimilated and grasped after "sleeping on it".

Ballard (2001)[59] describes how he came to realise the important role of sleep in Language Learning after working with Silent Way methodology. He told American students, overwhelmed with and struggling to learn Korean to go away and sleep on it.

On Sunday morning I asked them to express, in English, what had been happening to them internally since the course began. After the first few comments, a student named Vincent shot his hand up. He confessed he had been dreaming Korean sounds and words on Saturday night. Other students nodded their heads and admitted that they had done this, too. A week later, one student wrote in her feedback paper, "It is strange that the new language keeps coming back to me in spite of my conscious resistance. What surprised me most is that for three days after the course I always woke up with some Korean words on the tip of my tongue, and that sweet Korean song ringing in my ears".

The founder of the Silent Way, Caleb Gattegno appreciated the importance of sleep in learning and saw much of Western research into the subject severely limited, as it analysed sleep from the outside by observing others as they slept. The same tradition was also criticised by seeing sleep as a fatigued reaction to each day's events. According to Gattegno (1986)[60] by wilfully entering sleep, the mind is able to sort out the impacts it receives from the outside world while awake. Furthermore, the mind at rest is so efficient at making sense of our day-to-day experience that we are more intelligent asleep than awake. Curiously this is something many people accept but not in a conscious way. In our own experience we have observed how attempts to learn a foreign language which had reached a plateau where no

[59] Electronic source<http://www.uneeducationpourdemain.org.

[60] Electronic Source

perceivable progress was being made, when followed by a break of a month or so away from the environment where the language was spoken, instead of the expected disappearance of previously learnt language, surprisingly there appeared to be more fluency as if more understanding of the language had been unconsciously gained in our absence from the country where the language was spoken. Our point here is that unconscious processes do seem to play an important part in all of our everyday experiences and while we either seem to take it for granted or ignore this fascinating process, we could benefit more both in learning languages and also in accessing creative processes which are already present but paid little attention to.

Another way of working towards this type of dual thinking activation and processing systems is through the type of mindmapping techniques we have looked at in Section III Part 3. Approaches like these also recognise the importance of playful states of mind where the mind is allowed to roam, to create seemingly impossible outcomes and to juxtapose images. More specifically Csikszentmihalyi (362) describes a process for creatively dealing with a piece of work that one has to do. It may be a report to write, or a presentation, course or special lesson to prepare. First it is important to start with an open relaxed mind, where consciousness is unfocused, before trying to grasp the main issues you want to reflect in your project. Another important factor is that we should be responding both at emotional and intellectual levels. Play with the issues in your mind, visualise the scene, the people involved, how you yourself act in the situation and so on. Then start to jot down words or images on a page on the computer related to feelings about the project. Jot down too, words that suggest facts or events or people. Then when you have a few words down see if they can be linked together to make a story. The story you glimpse at this stage represents your strongest feelings about what is happening on the project. The next stage is where the emphasis moves from openness to discipline. It is here when you need to begin to choose words carefully and to make them more specifically relevant to the issue in hand. If you manage to be intuitively receptive at the beginning of the process and rationally critical later on the project will be considerably more creative than if you relied exclusively on one of these strategies.

The ability to move between different focuses is also important in our personal lives and in our dealings with others. We need to be able to change our perspectives to understand someone else's point of view, while at the same time keeping in touch with our own beliefs and perspectives. The influence of the emotions is an important element which is often neglected in such matters, but by drawing on the way we feel about thing taps into intuitive areas which balance the task and make it more personally relevant and meaningful. As has been shown by Damasio (1994) even

though we may believe otherwise, we are unable to make good or rational decisions without the intervention of the emotions.

One of the major implications of the ability to be able to draw on both conscious and unconscious thinking processes is that it has been shown to be vital for creative thinking processes. Yet with most education systems focusing on conscious and rational thought it is an area which receives little or no attention. If we accept the need for balance between input, in the form new information, we must also allow opportunities for the new information to be consolidated and links to be perceived with the learners existing knowledge. We also need to accept that this will be achieved in a variety of different ways depending on the individual and their previous experiences and knowledge. It is this way that the new material becomes part of the rich web of knowledge and becomes available for individual and creative expression.

Being able to shift perspectives also implies being able to accept points of view, which are different from our own. This is paralleled in the classroom context by the need for understanding, empathy and rapport between teachers and learners and between the learners themselves. In language classrooms, if we are interested in using the language for expanding awareness and the expressing of personal ideas and opinions, this is a major consideration. It is area that can also be examined through the use of group work activities where ideas can be generated and shared and compared. In activities we have proposed in this study these elements of generating ideas, comparing, sharing and expanding them through discussion with others are demonstrated.

7.8. Complexity

Csikszentmihalyi describes the ability of being able to move from one trait to its opposite as forming part of the general conditions of psychic complexity which is seen as,

> A feature of every system from the simplest amoeba to the most sophisticated human culture. To describe something as complex means that is a differentiated system in that it has many distinctive parts and that those parts form an integrated system in that the parts work together smoothly. A system that is differentiated but not integrated is complicated but not complex, so that it will be chaotic and confusing. A system that is integrated but not differentiated is rigid and redundant but not complex.

> Evolution appears to favour organisms that are complex that is differentiated and integrated at the same time. (362)

Psychological complexity, according to Csikszentmihalyi, is something that all those who wish to realise their full potential and who want to take part in the evolution of consciousness should aim for. In exploring and strengthening the traits that we lack we can work towards the kind of complexity that highly creative people demonstrate.

> A creative person is highly individualised. She follows her own star and creates her own career. At the same time, she is deeply steeped in the traditions of the culture; she learns and respects the rules of the domain and is responsive to the opinions of the field– as long as those opinions do not conflict with personal experience. Complexity is the result of the fruitful interaction between these two opposing tendencies. (363)

7.9. Breaking the rules and divergent thinking

In responding to events in life, we can come up with the tried and tested responses or we can challenge ourselves to try and produce more original ones. Just as in forms of physical exercise, the more a set of muscles is used the more supple and stronger they become. An unused muscle becomes weak from lack of use and if it is taxed, complains bitterly. Many people have become so set in paths of predictable thinking that they are unable to climb out of the deep grooves that they have dug themselves into. We have commented elsewhere in this study about the difficulty some students experience in coming up with imaginative responses and of the frequent claim "I have no imagination". The problem with this kind of belief is that it is very convincing. People very soon convince themselves that it is true, just as some people are convinced that they are not and cannot be creative. Some people are easily taken in by their own words or the words of others and this is all too often compounded by education systems which have set no store on developing and encouraging creativity. Divergent thinking requires more attention than the easy way out of convergent thinking. So unless the benefits and the fun of divergent and more creative thinking are experienced those unaccustomed are unlikely to make the effort.

Ways of encouraging divergent thinking are to try to produce as many ideas as possible when tackling certain tasks and not to exclude ideas which appear not be feasible. They may later generate more ideas. Also it is important not to focus only on quantity but on variety and originality. Another ploy is to challenge oneself with

the question, "what if the opposite were true?" Csikszentmihalyi suggests that imagining alternatives to what others hold to be true is probably going to be useless 99 per cent of the time. But that one other time the practice of forcing oneself to adopt a divergent perspective might generate an insight that is not only original but also useful.

7.10. Summary

In this section we have looked at some of the most commonly identified characteristics of creative people. We have considered how the strategies of creative people might be applied to our lives in general and given some specific examples of how these ideas may be applied to teaching and learning situations with the aim of making both teaching and learning more creative. In most teaching situations the reactions of teachers to innovation and breaking out of the tried and tested patterns of doing things is seen as having a very low priority on the list of things to be dealt with in the classroom, but this only promotes a state which further encourages staleness, lack of interest on the part of teachers and as a natural consequence boredom and lack of interest in students. Teaching becomes 'stuck' and even worse, all begins to conspire in a downward spiralling effect where teaching and learning become negative experiences for all those involved. We have looked at the specific consequences of 'stuck' teaching in Part 4 of this section and, true to one of the paradigms of creative thinking, have explored its polar opposites.

Even those who do make efforts to vary their teaching may be may still be operating within a fairly narrow range of possibilities. As Fanselow (1987) points out,

> The rules of the classroom are remarkably stable, and often what we think we are doing is different from observers perceive us as doing. Even when we try alternatives, we are more likely to judge them in relationship to our preconceived ideas of what good teaching is rather than by including the consequences of the alternatives in our descriptions and comparing them. In short, though we do exercise control and are somewhat aware of what we do, for most of us there is a whole alternative world of possibilities to discover and try out. (9)

So from one point of view even though we think we are being innovative we are probably only exploring a very small percentage of the possibilities available to us. The new and innovative patterns we adopt can all too soon establish themselves as the new status quo.

Highly creative people are not creative everyday, nor are we creative on personal levels all the time. Much of our lives have to be run on fairly habitual patterns of behaviour because this is the most economical way of living our lives. Personal creativity may be signalled in the degree to which people seek options and variety in those areas of their lives which can be made more individual, personally meaningful and creative. In a similar way teaching creatively does not mean coming up with original activities and ways of doing things all the time. This would clearly be an impossible task and would produce highly unstable and insecure conditions for learners, and rather than facilitating learning, would do the opposite. What we understand by creative teaching are situations where stability and secure learning conditions are provided, but which at the same time help and encourage learners to develop their skills, confidence and self-esteem. They also provide opportunities for mind opening activities, exposure to different ways of doing things and positive encouragement of personal creativity. This can only happen within an environment which is not static and predictable all the time, but which provides variety and introduces the element of surprise. It should also include elements that challenge students preconceived ways of thinking, seeing and learning and which builds states of involved interest or flow states.

Creative teaching involves teachers adopting strategies like those we have outlined above to maintain flexibility and innovation in their approach to teaching. In addition as teachers and facilitators of learning it behoves us not only to teach the subject but to be concerned with the processes of learning and development in our students. Thus the elements we have described above can also be elements which are interwoven into the activities and general climate of language learning classrooms. In keeping with beliefs that everyone can become more creative we suggest that taking on board such considerations and putting them into practice can go a considerable way to making teaching more creative. Of course personal commitment and motivation are key factors. If one is already teaching in ways which take into account creative processes for teachers and learners, one knows intuitively that this is how it should be. This is not to imply that every teacher reaches peaks of creativity all the time. Nor does it imply that students should be encouraged to be creative to the expense of all else. The pitfalls of such trends have long been recognised. For some teachers the element of creativity may never arise. They know what they have to teach, they have their tried and tested ways and see no reason to change, everything is neatly categorised, subject, methods and learners. But as we have suggested in our discussion on "stuck teaching" this is a non-dynamic and therefore non-creative way of teaching. For these people as Martindale (1989)[61] has pointed creativity is difficult, if not impossible to learn.

[61] Electronic source.

Creative teaching as we have emphasised throughout this study involves a way of teaching that views the processes and the learners as equally important as the subject to be taught. When we view teaching learning process in this way we are already on the way to creative teaching. But as has been pointed out this is an ongoing process and one that needs to be continually monitored. What may have been seen as pattern breaking can all too quickly become an established way of doing things.

Creative teaching is more than doing the occasional activity in class which is designed to trigger creative responses, it is a way of being and no amount of dipping into resource books which suggest creative activities will necessarily make one into a creative teacher. These types of resources can help for they may plant the seeds of innovative approaches for both teachers and learners. More than anything else we see creative teaching as an ongoing journey on which one embarks with open mind and flexibility and preparedness to keep evolving and learning. Extending our knowledge about ways in which creative people work can be an important area to consider both from the point of view of teaching and for the ways it may help us to encourage learners to develop their creativity. These two threads are closely intertwined, for it is the sum of the parts of all involved in the teaching learning process and the ongoing and dynamic interaction between them which make creative teaching possible.

V. Conclusions

1. CONTEXTUALISATION

In this study we have explored the concept of creativity in teaching starting from the basis of creativity in areas with which it is most commonly associated, in the arts and science. This has included the range of creativity from historical creativity to personal creativity from which we have drawn observations and implications that might usefully be applied to creativity in teaching. As our objective has been to work towards a definition of creativity in teaching we have also drawn on the views of the people on the receiving end of teaching, the students, and on our own experiences teaching in a variety of different situations. From the gathered threads of these areas we have attempted to create a fabric into which the concept of creative teaching might be interwoven and supported.

2. CREATIVITY AND PROBLEM SOLVING

Within contexts like business, creativity is sometimes referred to as 'problem-solving' and this is one area to which creativity is sometimes directed. Others have viewed creativity as 'problem-finding' in the identification of 'spaces' where creative thinking and creative outcomes can improve upon the status quo and have enriching effects on different aspects of life. One major 'problem' with creativity is in the difficulty in being able to pin down just exactly what it is. Edwards (1987) has pondered, in common with many others, how a concept so important in human thinking, so crucial to human history, so dearly valued by nearly everyone, can be so elusive. Fruitful areas to drawn on in elucidating creativity and creative processes are the visual and the performing arts. Artistic practices and techniques from these areas seem particularly suited to releasing the creativity found in different types of organisations. In business, where the rigours of the business processes practised have kept creative practices suppressed, we may find a kind of parallel to the application of creativity to education. In a recent survey (Addison, S. Claydon, T. McDowell 1999) 64 UK businesses were asked to identify the four most important

creative and innovative skills for their particular business out of a list of 21 which included:

- thinks laterally
- seeks new experiences and new information from different fields
- considers an unorthodox solution to the problem
- makes unexpected associations and connections
- draws on ideas outside own area of expertise
- spends time considering new approaches
- comes up with lots of ideas quickly

and which are usually seen as some of the key aspects of creative processes. Instead they opted primarily for a problem-solving approach to creativity and listed the following as the most important creative and innovative skills:

- clearly defines what the problem really is
- gets the facts necessary to develop a solution to a problem
- looks for underlying causes of problems
- puts ideas into practice

In business, "problems" are often related to production and output. All too often so are the "problems" of education. In this study while we have based our inquiry for the most part on teaching which forms part of state education systems we have focused on how the issue of creativity in teaching is very much within the hands of teachers and the practices they adopt. Clearly the degree of control and other constraints imposed on teachers, govern to a certain extent what goes on in classrooms. In some cases the demands of the system and their repercussions are seen to be so great that the teacher feels there is no room for movement and personal innovation. When so much energy is taken up with dealing with what has to be done no mental or physical energy remains for what may be seen as slightly innovative and even less, for practices which are seen as creative. While creativity **is** valued in many contexts there is sometimes the feeling in teaching that it is all a little too vague and has little to do with the real business of teaching which is concerned, like the businesses to which we compared it above, with the results at the end of the process.

3. MAIN THEMES EXPLORED

In this study we have explored several main themes which have been central to its development.

- How creativity is not reserved only for the highly gifted but that there are degrees of creativity. While very few will ever attain the world changing variety, this is not the important thing. What is important is that everyone is capable of living their lives more imaginatively and creatively. This is possible for everyone. We may have forgotten how to access our sources of creativity, but we can work on ways of doing this, in our lives in general, through the way we teach and in the creation of learning situations which recognise this and help to work towards it.

- How it is possible to work creatively in teaching within the constraints imposed from outside (this in itself is a context within which creative processes must function)

- How adopting approaches which are flexible, innovative and which focus on the processes of teaching and learning rather than primarily on the outcomes, *facilitates* the learning process helping students to be more involved, interested and motivated to learn, and at the same time more creative in their ways of thinking, seeing, feeling and expressing themselves.

- How we might work in some way to address the issue of creativity in secondary and tertiary education, areas where it seems most neglected and ignored.

3.1. Creating the conditions for creative teaching

Approaches which incorporate these types of considerations are sometimes construed as being unaffordable luxuries and an extra demand on the time and energy of the teacher. We suggest that the contrary is true, freeing up creative energy makes the teaching-learning situation more, rather than less productive. It is not necessarily a matter of making great changes, but is more to do with attitudes and ways of teaching and thinking about learning and the people involved. Committing oneself to these beliefs and introducing them even in initially small ways will make changes happen that can reap large and unexpected rewards in classroom practice.

What is more, in creating these conditions teaching and learning can flow in a united current rather than tugging and straining in opposite directions. The aim is to subtly blend the content of the subject to be taught together with the processes of learning. These then draw on and combine together with the experience, and the innate, but all too often ignored and consequently often atrophied, imagination and creativity of the learners.

The terms 'creativity in teaching' and creative teaching have been used a great deal in this study and while they might seem to focus on the practices which teachers adopt, it is clearly the aim through creative teaching to influence and develop the creativity of learners too. In fact we view creative teaching at its best as being *a symbiotic process* where in both teachers and students, learning processes interact and complement each other. A teacher *may* feel they know all they need to know about the subject (although any teachers who believed this would be seriously deluding themselves) but in any teaching situation we need to be continually open and responsive to the learners. Each group of learners is different and can never be dealt with in the same way. A good facilitator of learning needs to constantly seek ways to respond to the needs and the contributions of the students, and to the chemistry that each group creates. As a result the teacher too will learn, evolve and be changed in subtle ways through the same process.

The key to creativity and productivity lies in a subtle intermix of affective and cognitive abilities. These include aspects like challenging pre conceived ideas and assumptions, taking risks, making connections, taking advantage of chance, recognising patterns, and seeing in new ways and these are elements which we have seen as crucial in exploring ways of working towards creative teaching.

3.2. Teaching as an art

Taking as the underlying idea for this exploration of study the concept of 'teaching as an art' opens up a perspective or a metaphor for teaching which allows us to draw on elements associated with other creative processes and to see that they fit equally well into to the concept of creativity in teaching.

Central to the concept of teaching as an art is the unfolding quality of creative teaching, which we have likened to the unfolding quality of an original piece of artwork or indeed to any piece of original and creative work, a musical composition, a novel or a poem. There has to be a dynamic actively functioning for any process to be creative. In fields of entertainment for example, chemistry has to be created

between the performer and the audience. Even a good performer will find it hard to function well in front of an unreceptive audience, whereas if the audience is receptive there will be a two way current, one feeding the other and nourishing the other. This may permit the artist to improvise and to include elements in his act that emerged from his performance as a result of that feedback.

An artist working on two canvases at the same time can play off one against the other. When the way becomes blocked in one piece of work, it can be temporarily set aside and then later, that solutions emerge from which one can learn. Or new perspective are opened up which can reveal previously unconsidered possibilities, doors are opened in perception which allow the blocked work to proceed down new and fruitful pathways.

3.3. Teaching and learning as interactive processes; implications for creative teaching.

In teaching, if a vacuum exists and no chemistry sparks things into life little of real value will happen. If the vital spark is not alive, and students do not respond, passively receiving what the teacher puts to them, in the end the energy of the teacher drains away and she falls back on the habitual and monotonous. This sets off a downward spiralling situation where rather than recharging, the batteries of teachers and students are drained of creative energy. The teaching may be satisfactory, learning may be passable but the creative spark dies. We have illustrated this type of situation in Section IV Part 4, through the concept of‘stuck teaching’ and have suggested some ways in which the situation may be reversed.

Students’ responses to the topic of creativity in teaching (Section IV Part1) revealed various perspectives and opinions, but it is worth bearing in mind that the overwhelming response related to creative teaching was that it was not ‘boring’ or ‘monotonous’, and that what most characterised non creative teaching that lacked the creative spark was that students become bored, lose interest in the subject and find it difficult to pay attention, in several cases it was equated with ‘classical ‘ or traditional lessons. While this may not be a particularly creative response to the question, it does deal with the matter in a way that identifies the real or perceived effect on learners at whom teaching processes are directed. However an interesting point is that these students have in their own way pinpointed one factor which is of crucial importance in creative processes; that of motivation. The types of situations which they have equated with non-creative teaching describe states where ‘flow’ (see Section II, Part 2) is non existent, characterised by “feeling sleepy in class”, “not paying attention”, “lack of interest”, “lack of involvement” and so on.

The spark which charges, which keeps alive and makes teaching and learning come to life, evolve and grow, depends to a great extent on the environment which is built, maybe little by little in the classroom. It has much to do with elements like empathy and rapport, elements which in turn reflect a facilitative approach to teaching. Without these elements it will difficult or impossible to establish the right conditions for creativity in teaching and learning to flourish.

> I see the facilitation of learning as the function that may hold constructive, tentative, changing process answers to some of the deepest perplexities that beset humankind today. We possess a very considerable knowledge of the conditions that encourage self-initiated, significant, experiential, gut level learning by the whole person. We know that the initiation of such learning rests not upon the teaching skill of the leader, not upon scholarly knowledge of the field, not upon curricular planning, not upon the use of audiovisual aids, not upon the programmed learning used, not upon lectures and presentations, not upon an abundance of books, though each of these might at one time or another be utilised as an important resource. No, the facilitation of significant learning rests upon certain attitudinal qualities that exist in the personal relationship between the facilitator and the learner. (Rogers 1994, 121-2)

These qualities are genuiness, acceptance and empathic understanding.

Genuiness means being yourself and not playing a role in front of your learners. Dufeu has seen good teachers as teaching what they are, more than the actual content of a subject.

> When the facilitator is a real person, being what she is, entering into a relationship with the learner without presenting a front or facade, she is much more likely to be effective. She can be enthusiastic, can be bored, can be interested in students, can be angry, can be sensitive and sympathetic. Because she accepts these feelings as her own, she has no need to impose them on her students. She can like or dislike a student product without implying that is objectively good or bad or that the student is good or bad. She is simply expressing a feeling for the product, a feeling that exists within herself. Thus, she is a person to her students, not a faceless embodiment. This is sharply in contrast with the tendency of most teachers to show themselves to their pupils simply as roles (Rogers 1994:121-2)

Acceptance is sometimes difficult, we all have our predispositions towards certain students. It is known that teachers' expectations of students can colour and even

influence their performance, so, we have to find ways of reframing our views if we are to regard each learner as a human being of worth. Rogers sees acceptance in these terms.

> I think of it as prizing the learner, prizing her feelings, her opinions, her person. It is a caring for the learner, but a non-possessive caring, it is an acceptance of this other individual as a separate person, having worth in her own right. It is a basic trust – a belief that this other person is somehow trustworthy. Such a teacher can accept the student's occasional apathy, her erratic desires to explore byroads of knowledge, as well as her disciplined efforts to achieve major goals.(124)

Rapport and empathetic understanding involves understanding the how the other person feels. These are concepts which form an integral and natural part of any good human relationships. The classroom is a part of life a just like any other and in some ways an even more concentrated slice of life, making these qualities crucial to the smooth functioning of relations in the classroom. Areas which link into this concept have been highlighted by Gardner's multiple intelligence theory which points to the interpersonal and intrapersonal intelligences which some may be strong on and which others may need to work on. Dufeu (1994) too has pointed to the importance of classroom relationships.

> Interpersonal relationships are at the heart of the teaching profession and teachers must be brought to an understanding of the possibility of a major transformation in attitudes and behaviour, the knowledge of what it means to be a teacher and what teaching methods imply. (168)

The area of intrapersonal and interpersonal relationships applies to both teachers and learners. Its importance has been drawn to by the work of Goleman (1995) on emotional intelligences, which has raised awareness of the importance of such areas for the smoother functioning of human relations in general and more specifically in teaching and learning situations. Rogers sees these qualities as a type of understanding.

> This kind of understanding is sharply different from the usual evaluative understanding which follows the pattern of 'I understand what is wrong with you'. When there is a sensitive empathy, the reaction in the learner follows something of this pattern 'at last someone understands how it feels and seems to be me without wanting to analyse me or judge me'. This attitude of standing in the other's shoes, of viewing the world through the student's eyes, is almost unheard of in the classroom. But it has a tremendous releasing effect when it occurs. (125)

While relationships between students and teachers often have a great influence over the interest students have in a subject this may be especially true in language teaching where emotions and relationships are so important and closely linked. Teachers have it within their power to sharpen or blunt students' curiosity, both in the subject and even perhaps beyond the formal teaching situation and thus if we wish to develop creativity in our learners we need to be able to stimulate their curiosity and interest. When the optimum conditions are achieved, when all works in a common cause, then the results are exciting for everyone involved.

> When I have been able to transform a group– and here I mean all the members of the group including myself-into a community of learners, then the excitement has been almost beyond belief. To free curiosity; to permit individuals to go charging off in new directions dictated by their own interests; to unleash the sense of inquiry; to open everything to questioning and exploration; to recognise that everything is in the process of change – here is an experience I can never forget. I cannot always achieve it with groups with which I am associated, but when it is partially or largely achieved, then it becomes a never-to-be-forgotten group experience. Out of such a context arise true students, real learners, creative scientists, and scholars, and practitioners, the kind of individuals who can live in a delicate but ever-changing balance between what is presently known and the flowing, moving, altering problems and facts of the future.
>
> (Rogers 119-21)

3.4. Unfolding processes and the role of feedback in creative teaching

We understand unfolding as the awareness and interaction between all the different factors which emerge in the course of a lesson and the way teachers deal with and respond to them. Sometimes we are able to respond almost instantaneously to what arises in the course of a lesson, on other occasions we may need to allow for longer or shorter periods of gestation. Some of these may happen, seemingly instantaneously, in the classroom some may be processed consciously or unconsciously out of the classroom ready to surface next time we need them.

We have found the importance of collecting feedback to be a crucial and integral element in this unfolding process. It provides another source of information which adds to our knowledge about the students themselves, their reactions to activities,

their ideas and so on. The more information teachers have available to them makes the whole teaching-learning processes more interactive and allows teachers to respond to what is happening in ways that may not have been possible if students' responses were not taken into account. Collecting feedback and acting on it gives validity to students' opinions and ideas and makes them feel that their voice counts in the classroom. It provides the framework for the unfolding and symbiotic quality of teaching and learning. We have also explored an extension or development of feedback, by returning the collected students' comments, observations, instant feedback and outcomes of group work back to them, not in the normal mode of corrected classwork but rather as a means of more widely diffusing their responses and making them accessible to all students in the group. This we have done on preservice teacher training courses where it serves a multi focused purpose of sharing ideas, comments and opinions with the whole group, a concept which we have seen as important because they reflect the diversity and different experiences of the group and because it has allowed them to see how this practice works in classrooms and how it may be transferred to their future teaching situations.

3.5. Accessing right brain and less conscious types of mental processing

Some of the most recognised creative geniuses of all times have claimed that the whole work came to them complete and they only needed to put it down on paper. This overlooks and simplifies the preceding processes, which moved between conscious and less conscious states of mind and which led up to the gestation and birth of the creation. Viewed from outside the processes of highly creative people may sometimes seem as elusive as magic,

> All these everyday miracles bear a relation to genius, at such moments the conscious and the unconscious conspire together to bring about the maximum effect; they play into each other's hands supporting strengthening, and supplementing each other, so that the resulting action comes from the full, integral personality, bearing the authority of the undivided mind. (Brande 1996: 38)

Creative writers and others involved in creative processes recognise the necessity of drawing on the particular type of functioning of the right brain in order to access memory, images, associations the basic materials ingredients which form the bedrock of their creative work which has later to be processed and organised in acceptable ways by the left brain type functions. They recognise how the first stage cannot be left out for any endeavours which involve creativity. While the left brain functions

as the critical censor and logical organiser is a necessary later stage in creative processes allowed to step in too early can kill creative ideas at birth. Being aware of such processes is a step on the way to being able to tap into them in teaching and learning.

A concern of ours in this study has been to recognise that opportunities to explore and discover and to add to one's creativity capital are important not only in the early years but also at higher levels of education, where it is, unfortunately, often completely ignored.

There needs to be space in teaching for learners to access these types of thinking. They can have specific and concrete outcomes as for example in creative writing or in helping to develop metaphors or visual representations which help to conceptualise new information or put into a new and helpful context previously met information. They are also highly beneficial for accessing states of calm and relaxation which can facilitate learning processes and even induce relaxed states prior to examinations.

With these issues in mind we explored the possibilities of activities like guided visualisations, metaphors, quotations and poetry. Sometimes we suggested that students might draw their responses in graphic, visual form, and while we were prepared for some resistance, found that although they were at first a little bemused at such an idea, on following occasions even when drawing was not suggested, students chose to note their responses in visual form, literally drawing on imagery and concepts which might not necessarily be expressed easily in another form.

Such activities tapped into the imagination and personal imagery stored in each individual's mind in unique and personally meaningful ways. The findings and responses collected from such activities and the spontaneous comments of students as to the effects of these types of activities on them have been overwhelming for their richness, variety and for reminding us, if this were necessary, of the uniqueness of the individuals who make up any seemingly typical group of students.

We have for the most part used these types of activities and collected feedback from them in workshop contexts and on preservice teacher training courses, where they have been used only in a limited way governed by constraints of time and course contents. This has been a little like touching the tip of an iceberg, for we have been aware of the vast potential of these types of activities, but as yet have not had the opportunity to explore or develop them in any depth. It may be that as we have already mentioned the fact of doing these kinds of activities even to a very limited degree has a beneficial effect.

This is an important consideration as it is not only in the classroom where learning happens, but it is in the classroom where the seeds of interest can be generated triggering the motivation for the type of learning which carries on beyond the classroom walls. Recognising that learners have thoughts and feelings and personal images and associations which can be accessed and drawn on in the learning process can make it a much more meaningful and long term process than those which focus on the input and practice of new material and information but which do not take into account the individuality of the learners. Teachers must know how to draw on right brain thinking both to access more intuitive, holistic and imaginative responses and while we have described some uses mainly within the area of pre-service teacher training courses, we believe that the implications and applications of these kinds of activities have their place in all areas of teaching and learning. We have given one specific example of guided visualisations used in another context in Appendix 6, and the value of visualisation has been used in a whole range of contexts. McKim in an interview with Zdenek (1983) describes how visualisation techniques and the kind of thinking that it generates can be used to facilitate learning in areas as diverse as engineering, mathematics, grammar and economics.

Another area which we have considered especially relevant to creative teaching is in the need to consciously access less conscious ways of thinking. While this may seem something of a paradox there are ways of thinking and processing information which are common to everyone but which curiously we pay little attention to in areas related to teaching and learning. People involved in creative processes as for example, writers know that they need to be able to tap into the intuitive, imaginative, holistic and associative resources of the brain and which are most usually associated with the right brain hemisphere functions.

Just as much of teaching is reflected in the way the teacher teaches, we also know that much information is absorbed in unconscious ways. We do this in our everyday lives and some have suggested that contrary to traditional practices where the full and undivided attention of learners is demanded (but not necessarily achieved) learning may be aided by adopting less direct approaches which take advantage of pre-conscious thinking, an approach adopted by suggestopedia. We have experimented (see Section III Part 6) to a very limited extent with materials not dealt with in explicit ways in the classroom through the use of quotations, visuals and other materials and have been interested to see to what extent materials they have been picked up on by students and interpreted from their own individual points of view in their own ways, seeing links and connections with areas of study and areas personally relevant to them. As a kind of bonus, students have often picked up on these materials including them in their learning journals or have been

inspired to add poems and quotations of their own. When this kind of thing happens it adds yet another facet to the 'dialogue', often an unspoken one, between students and teacher, maintaining an ongoing dynamic in which the concept of unfolding is enhanced and ideas are triggered for both students and teacher.

3.6. Factors affecting learning and personal development which can open or close pathways to creativity.

Creative teaching must recognise the individuality and creative potential of each learner. Any areas which help us to recognise these differences can make the outcomes of teaching and learning more creative, because they open rather than close the options and help individuals to achieve more. Treating everyone in the same way may mean a small minority are catered for but leave many others by the wayside. In the broader spectrum of teaching especially in secondary teaching situations this may be one highly influential factor that makes the difference between capturing or losing learners' interest and attention. Within these areas we have explored how a knowledge of areas like multiple intelligence theory, sensory representational modes and neurolinguistic programming might be usefully applied to teaching with the aim of maximising the learning potential of students and as a consequence, encouraging their creative potential.

3.7. Orientation of the classroom element of the investigation.

In this study we have been concerned with creativity both in general terms and as it might be related to teaching, and therefore as a logical extension in learning. In exploring the concept of creativity in teaching we have attempted to draw out a view of creative teaching as seen through the eyes of people who are on the receiving end of teaching, the students. In particular in this study our focus has been on students who intend to become teachers themselves. We have chosen this particular focus because these students, being near the end of their formal university studies have many years' experience to draw on when reflecting about issues linked with their learning experiences and their perceptions of creativity and creativity in teaching. Another reason was that raising the issue in teacher training courses brings the area into the spotlight, raising awareness and making them think about it from the point of view of future teachers.

Although most of this study has involved responses and experiences working with university students and adult learners this should not be construed as meaning

that it only applies to these areas and in these contexts. In fact as we have pointed out most creativity issues in education are still most often associated with much younger learners. Concerns with creativity rate very low on the list of priorities in educational establishments beyond primary levels. Therefore we have seen it as particularly relevant and revealing to address these issues with older students who have passed through the education system themselves, drawing on their experiences and reflections about creativity in general and creativity in teaching. In fact we see as especially relevant the fact that much of this study has revolved around work done with future teachers on preservice teacher training courses. It is perhaps with these young people starting out with fresh ideas and energy who can nurture creativity in their future teaching situations

Areas of knowledge which we need to be aware of and to consciously incorporate into teaching and learning are those which confirm to us that not all of us, teachers or learners are the same. Within any class there will be learners who may be stronger in some areas than others. These strengths may not be revealed if teachers expect everyone to learn and express themselves in the same way. Teachers too, tend to teach in ways which reflect their own strengths or in ways which have been reinforced and strengthened by education systems.

In this study we have taken into account a collection of elements through which we might work towards creativity in teaching. We have viewed creativity from the point of the teacher developing practices which can lead to more creative teaching because it is through creative teaching that we encourage creativity in learners. If we see teaching as the development of the individual, creativity plays an important part of this development.

To be able to help their students to tap into and develop their creativity, teachers themselves need to be in touch with their own creative potential. Although there will certainly be some who are already more developed in this area it is our belief that everyone can become more creative if they are prepared to consciously develop this faculty. To this end we have looked at how we can learn from the lives of highly creative people as studied by psychologists and others working in areas where creativity is a vital ingredient, and we have pointed to ways in which more creative habits might be formed in our lives. These are aspects which can equally well be applied to different areas of life, from one's personal life to ones' professional life.

In addition, as we have observed and students' have commented on in the questionnaires which formed part of this study, concerns for creativity either as reflected in teaching practices or in teachers' attitudes towards encouraging creativity on the part of students is remarkably rare, at least in the environment in which this

study has been based. Although the literature may lead us to believe otherwise, there remains a yawning chasm between small minorities working in creative ways and those who have not as yet come to see it as the way education should be. To this end while it has been useful and enlightening to draw on the experiences of students at the end of their formal education to give their perspectives on the existence or non existence of creative practices during their long years as students, we have also seen it as particularly relevant to raise such issues on pre-service teacher training courses, with students who are intending to become teachers themselves. Hopefully some of this awareness will go with these students into their future teaching posts.

We have suggested that tapping into the imagination is important as it influences personal development and identity. Students[1] reflecting on creativity made these observations as to how living creatively helped them to carve out their own ways of being.

> To me being creative means to decorate the world with my own colours, to enjoy imagining what some other people cannot imagine, to translate into new materials and forms old things, to use all my energy as a human being

> To me being creative means to do away with daily routine, to stamp your personality on everything you are engaged in. Neither to follow the general tendencies just for their own sake, nor adapting to them, but adapting them to you.

To be creative is to make a personal response to a particular situation. Our perception of ourselves is strengthened because we live differently in the creative act and experience in ways we do not necessarily perceive in everyday life.

> Using our imagination we can reach the symbolic, the mysterious, the strange, and the poetic that is inside us all. In this way we can stimulate the pleasures of existence of dreaming and wishing, which enthuse our desire for expression. (Dufeu 1994: 18)

To illustrate this we include this account of the experiences of one student[2] writing in her learning journal after taking part in a guided visualisation.

---

1 5th Year students of English Philology , University of Jaén, 1999.

2 4th Year student of English Philology, University of Jaén, 2001

> I have imagined myself in a kind of palace, with high columns and wall. I do not know what I was looking for, but I have spent the whole "dream" trying to open doors, coming into different rooms, where no furniture could be seen. Suddenly I saw a big balcony, closed. I opened it and an incredibly big garden was the only sight. Huge trees, enormous branches, and a little river, hidden, towards which I have felt completely attracted. I felt the necessity to join myself to that landscape, to touch the grass to get wet with the cool water of the river, but the balcony was very high. I did no mind. I jumped and in the falling process, I saw myself dressed in a fancy silk dress with all the colours of the rainbow. I did not hurt myself when I got to the floor. I started walking, touched the water, and then something unbelievable, the rainbow was standing in front of me inviting me to walk on it. A cloud was waiting for me as a vehicle to travel to the rainbow. Then the teacher asked us to pick something up. I was too far from the floor to take anything, so the only thing I could take was a piece of the rainbow. Its colours became blurred in my hands. It was the sweetest experience.

Through creativity new fields of awareness can be accessed. Activities which stimulate the imagination, which allow and encourage students to strengthen and develop their imaging abilities can allow an often untapped and exciting new field to open up in students which draws on their unconscious minds allowing them to express themselves in ways which complement and enrich their more conscious and rational sides.

3.8. Role of creativity in educating for change

Another key factor in advocating more creative approaches to teaching is for its role in change and evolution. Bodies of knowledge do still exist which need to be transmitted intact from generation to generation and often traditional teaching methods based on classical humanism are used to diffuse this knowledge. Yet more and more, especially perhaps in the areas of science and technology we see how knowledge once held to be true has often ceased to be relevant in itself, although it may still provide a a base or starting point on which to build, develop and evolve. Many educators see one of the main roles of education as being in the preparation of learners to live with, adapt to and recognise the importance of change, without which many will get left behind in world which is changing so rapidly. Thus in contrast to "traditional" views of teaching where bodies of knowledge are passed on from teacher to pupil a creative approach to teaching allows for the ideas of the learners to play a part in the ongoing teaching- learning process

> Teaching and the imparting of knowledge make sense in an unchanging environment. This is why it has been an unquestioned function for centuries. But if there is one truth about modern man, is that he lives in an environment that is continually changing. The only man who is educated is the man who has learned how to learn; the man who has learned how to adapt and change: the man who has realised that no knowledge is secure, that only the process of seeking knowledge gives a basis for security. Changingness, a reliance on process rather than upon static knowledge, is the only thing that makes sense as a goal for education in the modern world (Rogers 1994: 152)

For any system to evolve it has to be open to change, flexible, adaptable and sensitive to a whole range of influences which impinge on it from different directions. Some of those directions may be areas we have not previously considered as having direct bearing on the subject in hand. On a global scale we see more and more how this is true. The systems approach to viewing organisms acknowledges the interconnectedness of all things. One event triggers off others, sometimes in unexpected ways. This is an awareness we sometimes choose to ignore or overlook, although concepts like these have been integral to other cultures in other times. They are not new but require a swing in the pendulum of our perceptions to see how things are. These concepts work on global levels and personal levels too and thus it holds just as true for teaching and learning.

Looking for interconnections and seeing the possibilities in the juxtaposition of unlike elements is an important element of creative thinking. It is important too for teaching for, by attempting to categorise people and areas of knowledge into neat categories we miss out on the chance discoveries, the sudden insights, vistas which can change our perceptions and perspectives and allow us to see the existing possibilities with fresh eyes and even more to be aware of and act on totally new possibilities.

Specific activities and techniques designed to encourage creative responses can open up new and more creative ways of thinking, responding to and dealing with life issues as well as those pertaining to education. They can also be used in the classroom as ways of generating options and breaking out of the set patterns of thinking which everyone too easily falls into. Some examples and suggestions are to be found in Appendix 12. With a more specific focus on language classrooms, we have proposed some activities which could be usefully incorporated into language classrooms. They aim to open ways of thinking seeing and feeling through use of language and as such they have a dual focus working on language skills and creativity

at the same time. Some examples of these kinds of activities are to be found in Appendix 24. We have used all of these activities successfully in a range of different foreign language teaching contexts.

We suggest however that creative teaching does not only depend on specific creative activities. While these may form a part of the process and may help to encourage creativity in learners and in turn to generate ideas and variations, for both teachers and learners, we believe that creative teaching depends more on the way a teacher teaches and opens the possibilities for all involved in the teaching- learning process.

Much of this study centres around work we have done with students on pre-service teacher training courses, but it also draws heavily on the accumulated experience of many years teaching in variety of different situations and subject areas. One final observation related to creative teaching brings all aspects of this study together. We are increasingly convinced of the importance of giving students the opportunity to show what they can do. This can of course take many forms. On pre service teacher training courses, we ask students, as part of their course work to prepare and present, an element based on the course work. Related to a common theme and limited by certain constraints, students individually or working in small groups prepared their mini lesson in their own way to their way to their fellow students. Reflecting an element which we have touched on in this study, students were asked to prepare a lead in activity and an outline of how the lesson would develop, incorporating the notions of multiple intelligences. One may not always be rewarded with such imaginative and inventive students but in this particular case the students working in small groups came up with such a variety of exciting ideas that each and everyone was left with a feeling of being part of an ongoing creative process where true cross fertilisation was taking place, where new ideas were triggered off and where everyone was fully involved. Teachers should never underestimate the potential creativity of students. Prepare the groundwork, give them the opportunities and they will surprise and delight.

The concept of creativity is not defined by boundaries or limits. It is open to different interpretations and calls for ongoing exploration. Creative teaching is not about the occasional use of novel activities, nor can it be separated into what the teacher does or what the students do, the two are closely intertwined. Creative teaching can generate exciting and dynamic possibilities, it allows all involved, teachers and students, to leave a positive trace of themselves, a brushmark on the complex canvas of teaching and learning which enriches and colours it and makes it, like an beautiful painting, something to treasure, to safeguard and in addition a starting point for further exploration and inspiration.

Bibliography

Publications cited and consulted

Adkins, S. " Connecting the Powers of Music to the Learning of Languages." *Journal of the Imagination in Language Learning* IV (1997): 40-48.

Allen, P. Wallace, B and F. Lochiavo "Influence of imaging ability on word transformation." *Memory and Cognition* 22/5 (1994): 565-574.

Allport, G. *Patterns and Growth in Personality*. New York: Holt, Rinehart and Winston, 1961.

Amabile, T. *The Social Psychology of Creativity*. New York: Springer-Verlag, 1983.

—. "Motivation and Creativity: effects of motivational orientation on creative writers." *Journal of Psychology and Social Psychology* 48 (1985): 393- 399.

Appel, J. *Diary of a Language Teacher*. Oxford: Heinemann, 1995.

Arnheim, R. *Visual Thinking.* Berkeley: University of California Press, 1969.

Arnold, J, Ed. *Affect in Language Teaching*. Cambridge: Cambridge University Press, 1999.

—. "Visualisation, language learning with the mind's eye". *Affect in Language Teaching*. J. Arnold. (Ed.) Cambridge: Cambridge University Press, 1999. 260-278.

Asher, J .J. Imagination in second language Acquisition." *Journal of the Imagination in Language Learning* 1/1 (1993): 20-23.

Auster, P. *The Red Notebook.* London: Faber and Faber, 1995.

Barron, F. "The disposition towards originality." *The Journal of Abnormal and Social Psychology* 51 (1955): 478- 485.

—. " Creativity." in A. Deutsch. (Ed.) *The Encyclopedia of Mental Health*. 11. 1963.

Barrow, J. D. *The Artful Universe: the cosmic source of creativity.* London: Penguin Books, 1997.

Bateson, G. *Steps to an Ecology of Mind.* Ballantine, 1972.

Beaver, D. *NLP for Lazy Learning*. UK: Element Books Ltd, 1998.

Berlyne, D.E. *Structure and Direction in Thinking*. New: New York:Wiley, 1965.

Boden, M. *The Creative Mind*. New York: Basic Books, 1990.

Bogen, J. "The other side of the brain". *Bulletin of the Los Angeles* Neurological Society 34 (1969): 73-105.

Bowker, D. " Helping teachers to reflect- an application of NLP." *The Teacher Trainer* 12/1 (1998): 19-21.

Brande, D. *Becoming a Writer*. 1934. UK: MacMillan, 1996.

Brothers, L. *Neurophysiology of the perception of intentions*. Cambridge MA: MIT press, 1995.

Bruner, J. *Actual Minds, Possible Worlds*. New York: Harvard University Press, 1986.

Buzan, T. *Use Both Sides of the Brain.* New York: Plume, 1991.

—. *The Mind Map Book*. London: BCA, 1993.

Cameron, J. *The Vein of Gold*. London: Pan Books, 1996.

—. *The Artist's Way*. London*:* Pan Books, 1997.

Campbell, D. "Blind Variation and selective retention in creative thought as in other knowledge processes". *Psychological Review* 67 (1960): 380-564.

Campbell, D.G. *Introduction to the Musical Brain.* Saint Louis: MMB Music Inc, 1992.

Campos, A. and M. A. Gonzalez. "Effects of mental imagery on creative perception." *Journal of Mental Imagery* 19 (1995): 67-76.

Canfield, J. and V.M. Hansen. *Chicken Soup for the Soul*. Vermilion, 1999.

Cannon, W.B. *The Wisdom of the Body*. New York: Norton, revised edition, 1939.

Capra, F. *The Web of Life*. UK: Flamingo, Harper Collins, 1997.

Cattel, R. B. and Butcher, H. J. *The prediction of achievement and creativity.* New York: Bobbs Merrill, 1968.

Chambers, J.A. " College Teachers. Their effect on creativity of students." *Journal of Educational Psychology* 65 (1973): 326-334.

Chopra, D. *Ageless Body, Timeless Mind.* London: Rider, Random House, 1993.

Claxton, G. *Hare Brain, Tortoise Mind.* London: Fourth Estate, 1997.

Cocteau, J. "The process of inspiration". *Le Foyer des Artistes.* Trans. B. Ghiselin.

Cooper, J. *Yin and Yang*. UK: The Aquarian Press, Thorsons Publishing Group, 1981.

Cropley, A. *Creativity*. London: Longman, 1967.

Crutchfield, R. "The creative process". *Proceedings of the Conference, "On the Creative person"* University of California Alumni Centre. VI (1961) 6-16.

Crystal, D. *Language Play*. London: Penguin Books, 1998.

Csikszentmihalyi, M. *Beyond Boredom and Anxiety*. San Francsico: Jossey Bass, 1975.

—. *The Creative Vision: a longitudinal study.* New York: Wiley - Interscience, 1976.

—. *Intrinsic Motivation and Affective Teaching.* San Francisco: Jossey Bass, 1982.

—. "Society, Culture and person: a systems view of creativity." *The Nature of Creativity.* Ed. R, J. Sternberg. New York: Cambridge University Press, 1988. 325-338.

—. *Creativity, Flow and the Psychology of Discovery*. New York: Harper Collins, 1997.

Csikszentmihalyi, M. and Csikszentmihalyi, I. S. *Optimal Experience*. New York: Cambridge University Press, 1988.

Curwin, R.L. and B.S. Furmann. Discovering your teaching self. Englewood Cliffs N.J. Prentice Hall, 1975

Cytowic, R.E. *The Man who tasted shapes.* New York: Putnam, 1993.

—. *Synaethesia: a union of the senses*. New York: Springer- Verlag, 1989.

Coreil, C, J. "Drawing on Experience: The interview." *Journal of the Imagination in language learning.* 1/1 (1993): 30- 35.

—. "The Right to be Creative." *Journal of the Imagination in Language Learning*. 1/1 (1993): 56-60.

Damasio, A. *Descartes Error: Emotion, Reason and the Human Brain*. New York: Avon, 1994.

—. *The Feeling of What Happens*. New York: Harcourt Brace and Company, 1999.

Davis, G.A. and Rimm, S. "Characteristics of creatively gifted children". *Gifted Child Quarterly* 21 (1977): 546-551.

De Bono, E. *Teaching Thinking.* London: Temple Smith, 1976.

—. *Serious Creativity*. Advanced Practical Thinking, 1993.

DeCharms, R. *Enhancing Motivation: Change in the classroom.* New York: Irvington, 1976.

DeCharms, R. and M. S. Muir. "Motivation: Social approaches". *Annual Review of Psychology,* 29 (1978): 91-113.

Deci, E. *Intrinsic Motivation*. New York: Plenum, 1975.

—. "Intrinsic Motivation, extrinsic reinforcement and inequity." *Journal of Personality and Social Psychology* 22/1 (1972): 113-120.

Deci, E, L. and R.M. Ryan. "The Empirical exploration of intrinsic motivational processes ." *Advances in Experimental Social Psychology.* Ed. L. Berkowitz. New York: Academic Press, 1980. 175-186.

Dennis, W. "Creative Productivity between ages of 20 and 80." *Journal of Gerontology* 21 (1996): 106-114.

Dennison, P.E. and G.E. Dennison. *Brain Gym: Aprendizaje de todo el cerebro.* Trans. G. Espinosa. Barcelona: Robin Book, 1996.

Dilts, R.B., Epstein, T and R.W. Dilts. *Tools for Dreamers*. USA: Metapublications, 1991.

Doyle, W. "Classroom Knowledge as a Foundation for Teaching". *Teachers College Record,* 91, 347-360.

Ducette, J., Wolk, S. and S. Friedman. "Locus of control and creativity in black and white children". *Journal of Social Psychology* 88 (1972): 297- 298.

Dufeu, B. *Teaching Myself*. Oxford: Oxford University Press, 1994.

Edwards, B. *The New Drawing on the Right Side of the Brain*. New York: Jeremy.P.Tarcher-Putnam, 1999.

Ehrenzweig, A. *The Hidden Order of Art*. U.K: Paladin, 1973.

Einstein, A. " Letter to Jacques Hadamard ". J.Hadamard. *The Psychology of Invention in the Mathematical Field.* Princeton University Press, 1945.

Eisner, E. *The Educational Imagination*. Basingstoke: MacMillan, 1979.

—. *The Enlightened Eye*. New York: MacMillan, 1991.

—. *The Kind of Schools We Need*. USA: Heinemann, 1998.

Ellis, R.–*Questioning Consciousness: The interplay of Imagery, Cognition and Emotion in the Human Brain.* Amsterdam: Benjamins, 1995.

Eynsenck, H.J. *Genius: The Natural History of Creativity*. Cambridge: Cambridge University Press, 1995.

Fanselow, J.F. *Breaking Rules.* New York: Longman, 1987.

Feldman, D.H. "Universal to Unique: a developmental view of creativity in

Education." *Essays in Creativity.* Rossner, S. and L. Abbot. (Eds.) NewYork: North River Press, 1974. 48-85.

Feldman, D.H. *Beyond Universals in cognitive development*. Norwood, NJ: Ablex, 1980.

Feldman, D.H., Csikszentmihalyi, M. and H. Gardner*. Changing the World: A framework for the study of creativity.* Westport: Praeger, 1994.

Finke, R.A. *Principles of Mental Imagery*. Cambridge Mass. MIT Press, 1993.

Fletcher. M. *Teaching for Success.* Kent, England: English Experience, 2000.

Gallwey, T. *Inner Game of Tennis*. London: Pan Books, 1974.

Galton, F. *Inquiries into Human Faculty and its Development*. London: MacMillan, 1883.

Gardner, H. *Frames of Mind*. New York: Basic Books, 1983.

—. "Creativity, an interdisciplinary perspective". *Creativity Research Journal* 1 (1988): 8-26.

—. *The Unschooled Mind.* London: Fontana, 1993a.

—. *Creating Minds.* New York: Basic Books-Harper Collins, 1993b.

—. *Intelligence Reframed.* New York: Basic Books-Harper Collins, 1995.

Gelb, M. *How to Think like Leonardo Da Vinci*. London: Thorsons-Harper Collins, 1998.

Gerngross, G. and H. Puchta. *Creative Grammar Practice.* London:Longman, 1999.

—. *Playway to English* 1. Cambridge: Cambridge University Press-Edition Heibling, 1998.

Getzels, J. "Problem Finding and the inventiveness of solutions". *Journal of Creative Behaviour* 9 (1975): 12-18.

Getzels, J. and M. Csikszentmihalyi*. The Creative Vision: a longitudinal study.* New York: Wiley-Interscience, 1976.

Ghiselin, B. (Ed) *The Creative Process: A Symposium.* New York: Mentor, 1952.

Glover, J.A. "Risky Shift and Creativity". *Social Behaviour and Personality,* 5, 1997, 317-320.

Glover, J.A and F. Sautte. "Relation of four components of creativity to risk taking procedures". *Psychological Reports* 41 (1977): 277-230.

Golann, S.E. "Psychological Study of creativity". *Psychological Bulletin* 60 (1963): 548-565.

Goleman, D. *Emotional Intelligence*. New York: Bantam Books, 1995.

Gordon, W. *Synectics: The development of creative capacity*. New York: Harper and Row, 1961.

Gordon, F.N. *Magical Classroom*. Tucson AR: Zephyr Press, 1995.

Graham, C. *Jazz Chants*. New York: Oxford University Press, 1978.

Grammar Chants. New York: Oxford University Press, 1993.

Green, B. (Ed.) *Metaphors and meanings: Essays on English Teaching*. Victoria, Australia: Australian Association for the Teaching of English.

Greenfield, S. *Brain Story*. London: BBC Worldwide Limited, 2000.

Gruber, H. "On the relation between the 'aha' experience and the construction of ideas". *History of Science* 19 (1982): 4-59.

Gruber, H and S. Davis. *Inching our way up Mount Olympus.* New York: Cambridge University Press, 1988.

Hadamard, J. *The Psychology of Invention in the Mathematical*. Princeton University Press, 1945.

Hadfield, J. *Classroom Dynamics.* Oxford: Oxford University Press, 1992.

Halbach, A. "Using Trainee's Diaries to evaluate a teacher training course." *ELT Journal.* 53/3 (1999): 183- 189.

Hamilton. R. *Earthdream, Marriage of Reason and Intution.* Green Books, 1990.

Hargreaves, A. *Changing Teachers, Changing Times*. London: Cassell, 1994.

Harris, P. (Ed.) *Zen Poems*. London: Everyman's Library Pocket Poets, 1999.

Harman, W and H. Rheingold. *Higher creativity: Liberating the Unconscious.* Los Angeles: J.P. Tarcher, 1984.

Hart, L. A. *Human Brain and Human Learning*. White Plains: Longman Inc, 1983.

Harter, S. "Effectance Motivation reconsidered: towards a developmental mode." *Human Development,* 21 (1978): 34- 64,

Head, K. and P. Taylor. *Readings in teacher development*. Oxford: Heinemann, 1997.

Herrmann, N. *The Creative Brain*. Brain Books, 1989.

Hoffman, E. and Z. Barkowicz. *The Learning Adventure.* Middlewich: Learn to Learn, 1999.

Houston, J. *The Possible Human*. Los Angeles: Jeremy P. Tarcher, Inc., 1982.

Jensen. E. *Super Teaching.* San Diego CA. The Brain Store, Inc, 1995.

Kline, E. *The Everyday Genius*. Great Ocean Publishers, 1998.

Koestler, A. *The Act of Creation*. London: Penguin Arkana, 1989.

Kolb, D.A. *Experiential Learning*. New Jersey: Prentice Hall, 1984.

Kosslyn, S.M. *Image and Mind*. Cambridge MA: Harvard University Press, 1980.

—. *Ghosts in the mind's machine. Creating and Using Images in the Brain*. New York: W.W. Norton, 1983.

—. *Imagery and the brain; the resolution of the imagery debate.* Cambridge MA: MIT Press, 1995.

Kuhn, T. S. "The Essential Tension; Tradition and innovation in scientific Research". *Scientific Creativity: Its recognition and development*. Eds. Baron, F and C.W. Taylor. New York: Wiley, 1963. 63-79.

Kurtolglu Eken, D. "The Jizz rainbow: a new challenge in Teacher Training." *IATEFL Teacher Training Newsletter* 2 (2000): 16-20.

Lakoff, G and M. Johnson. *Metaphors We Live By*. Chicago: University of Chicago Press, 1980.

Larsen-Freeman, D. "An Attitude of Inquiry: TESOL as a Science". *Journal of the Imagination in Language Learning* V. (2000): 18-21.

Lawlor, M. *Inner Track Learning*. Canterbury: Pilgrims Publications, 1988.

Lawrence, D. H. *Making Pictures*. Alfred A. Knopf Inc., 1928.

LeDoux, J. *The Emotional Brain*. New York: Simon and Schuster, 1996.

Lehman, H. *Age and Achievement.* Princeton NJ: Princeton University Press, 1953.

Lepper, M.R. and D. Greene. Eds. *The Hidden Costs of Rewards: New* p*erspectives on the psychology of human motivation.* Hillsdale, NJ: Lawrence Erlbaum, 1978.

Lindstromberg, S. *The Recipe Book*. Harlow: Longman, 1990.

Lowell, A. *The Process of Making Poetry*. Houghton Mifflin Company, 1930.

Lowes, J. L. *The Road to Xanadu*. Houghton Mifflin Company, 1927.

Lozanov, G. *Suggestology: An Outline of Suggestopedy*. New York: Gordon and Breach, 1978.

MacCormac. E. *A Cognitive Theory of Metaphor*. Cambridge MA:

Massachusetts Institute of Technology, 1970.

MacKinnon, D.W. "Personality and the realization of creative potential". *American Psychologist* 20 (1965): 273-281.

—. "The Nature and Nurture of creative talent". *American Psychologist* 17 (1962): 484-495.

Majoy, P. *Doorways to Learning.* Tucson AR: Zephyr Press, 1993.

Maley, A. and A. Duff. *The Inward Ear*. Cambridge: Cambridge University Press, 1989

—. "Creativity with a small 'c' ". *Journal of the Imagination in Language Learning* IV (1997): 8-16.

Malone, T.W. "Towards a theory of intrinsically motivating instruction." *Cognitive Sciences.* 4 (1981): 333-369.

Meehan, A. *Celtic Design Knotwork*. London: Thames and Hudson, 1991.

Maslow, A. *Towards a Psychology of Being*. New York: Van Nostrand, 1965.

Mayers, P. "Flow in adolescence and its relation to the school experience". Unpublished Doctoral Thesis. University of Chicago,1978.

McEwan, I. *Amsterdam*. London: Jonathan Cape, 1996.

Menden, A. and J. Rubin. *Learner Strategies in Language Learning*. Prentice-Hall International ELT, 1987.

Michalko, M. *Cracking Creativity: The secrets of creative genius.* Ten Speed Press, 1998.

Mitchell, R.G. *Mountain Experience: The psychology and sociology of Adventure.* Chicago: Chicago University Press, 1983.

Moskowitz. G. "Spellbound in the Language Class: a strategy of surprise". *Journal of the Imagination in Language Learning*. III (1995-6): 27-34.

Moulton, M. and V. Holmes. "Pattern Poems: Creative Writing for Language Acquisition." *Journal of the Imagination in Language Learning* IV (1997): 84-90.

—. *Writing Simple Poems*. Cambridge: Cambridge University Press, 2001.

Murdoch, G. "Practising what we preach in Teacher Training". *English Language Teaching Forum* 28/3 (1990):

Murdock, M. *Spinning Inward*. Boston: Shambhala, 1987.

Murphey, T. *Music and Song*. Oxford: Oxford University Press, 1993.

—." Action Logging: Letting the students in on teacher reflection processes." *The Teacher Trainer.* 6/2 (1992): 20-21.

—. "Image Streaming". *English Teaching Professional.* 9 (1998): 9-10

Nelson-Jones, R. *Life Skills - A Handbook*. London: Cassell, 1991.

Neville, B. *Educating Psyche: Emotion, imagination and the unconscious in Learning.*Victoria: Collins Dove, 1989.

Newell, A. Shaw, J and H. Simon. "The Processes of Creative Thinking".

H. Gruber, G, Terrell and M. Wertheimer (Eds*.) Contemporary Approaches to Creative Thinking.* New York: Atherton Press, 1962.

Newell, A and Simon, H. *Human Problem Solving*. Englewood Cliffs NJ: Prentice Hall, 1972.

Newham, P. "Making a song and a dance: The Musical Voice of Language". *Journal of the Imagination in Learning*. 3 (1995-6): 35- 48.

Nickerson, R. S. *Enhancing Creativity*. Cambridge: Cambridge University Press, 1999.

Nuland, S. B. *How We Live: The Wisdom of the Body*. London: Vintage, 1998.

Obler, L. K. and K. Gjerlow. *Language and the Brain*. Cambridge: Cambridge University Press, 1999.

O'Connor, J. and J. Seymour. *Principles of NLP.* Thorsons-Harper Collins, 1996.

O'Neill, R. "Why use text books." Rossner, R. and R. Bolitho. (Eds.) *Currents of Change in English Language Teaching.* Oxford: Oxford University Press, 1990, 148-156.

O'Rourke, R. "The Learning Journal: from chaos to coherence." *Assessment and Evaluation in Higher Education.* 23/4 (1998): 403-413.

Ortony, A. (Ed.) *Metaphor and Thought*. Cambridge: Cambridge University Press, 1979.

Osborn, A. *Applied Imagination: principles and procedures.* New York: Scribner's, 1963.

Owen, N. "Teaching Excellence." *English Teaching Professional*. 13 (1999): 42-44.

Oxford, R. L. *Language Learning Strategies*. Boston Massachusetts: Heinle and Heinle, 1990.

Paivio, A and Yuille, J.C. "Concreteness, imagery and meaningfulness Values. *Journal of Experimental Psychology.* 20 (1968): 459- 463.

Palmer, R and C. Pope. *Brain Train*. New York: E. and F. N. Spon, 1984.

Pert, C. and D. Chopra. *Molecules of Emotion*. Pocket Books, 1999.

Petrie, H. "Metaphor and Learning" in *Metaphor and Learning.* Ortony, A (Ed.) Cambridge: Cambridge University Press, 1994.

Philal, J.E. *Intrinsic Rewards in Teaching.* Unpublished Doctoral Disseration. University of Chicago, 1982.

Pinker, S. *The Language Instinct*. London: Allen Lane-The Penguin Press, 1994.

Pirsig. R. *Lila*. London: Bantam Press, 1991.

Pittman. T. "Perception without awareness in the stream of behaviour: processes that produce and limit unconsciousness biasing effects." *Perception without awareness: Cognitive, Clinical and Social Perspectives.* Bornstein, R and F. A. Pittman (Eds.) New York: Guildford Press, 1997. check pages

Poincaré. H. *The Foundations of Science.* New York: Science Press, 1913.

Pollert, L. H., Feldhusen, J. P. and A. P. Van Mondfrans. Role of memory in divergent thinking." *Psychological Reports.* 25 (1969): 151-156.

Postman, N. *Technopoly*. New York: Knopf, 1992.

Prados Medina, A. "Estrés Laboral en Docentes." *Aula de Encuentros:* University of Jaén, 3 (1999): 91-100.

Prodromou, L. "The Good Language Teacher". *English Teaching Forum* 91/4: 2-7.

—. "How to be a boring teacher." *English Teaching Professional.* 12 (1999): 16-18.

Puchta, H. "Creating a learning culture to which students want to belong: The application of Neuro Linguistic Programming to language teaching". *Affect in Language Learning*. J. Arnold. (Ed.) Cambridge: Cambridge University Press, 1999, 246-259.

Quinn, E. "Creativity and cognitive complexity." *Social Behaviour and Personality*. 8 (1990): 213 - 225.

Ransdell, D.R. "Creative Writing is Greek to me." *ELT Journal.* 47/1 (1993): 40-46.

Rauscher, F. "Music and Reasoning." *Teaching Music*. 2 (1995): 40-41.

Restak, R.`*Mysteries of the Mind*. Washington DC: National Geographic Society, 2000.

Revell, J and S. Norman. *In Your Hands*. London: Saffire Press, 1997.

Richards, J and C. Lockhart. *Reflective Teaching in Second Language Classrooms*. Cambridge: Cambridge University Press, 1994.

Richardson, J.T. *Imagery.* East Sussex: Psychology Press, 1999.

Rinvolucri. M. *Letters*. Oxford: Oxford University Press, 1996.

Robles, A. "Fostering Positive Attitudes." *Modern English Teacher.* 7 (1998): 47-50.

Roe, A. "A Psychologist examines sixty four eminent scientists*." Scientific American.* 187 (1952): 21-25.

Rogers, C. "Towards a theory of creativity." *Review of General Semantics*. 11 (1954): 249-260.

Rogers, C. *Freedom to learn for the 80s*. Columbus: Merrill. 1983.

Rogers, C. and H. J. Freiburg. *Freedom to Learn*. 3rd. Edition. New York: Merrill-Prentice Hall, 1994.

Romo, M. *Psicologia de la Creatividad*. Ediciones Paidos Ibérica, S.A.,1997.

Rose, C. *Accelerated Learning.* England: Topaz Publishing Limited, 1985.

Rose, S. *The Making of Memory*. London: Bantam Books, 1993.

Roszak,T. *The Cult of Information.* Berkeley: UC Press, 1994.

Schumann, J. *The Neurobiology of Affect in Language.* UK: Blackwell Publishers, 1997.

—. "A neurobiological perspective on affect in language learning." *Affect in Language Teaching*. J. Arnold. (Ed.) Cambridge: Cambridge University Press, 1999. 28-42.

Shakti, G. *Creative Visualisations: Use the Power of your Imagination to Create*. New York: Bantam Books, 1987.

Sheldon, L. E. "Evaluating ELT textbooks and materials." *ELT Journal.* 42/4, (1998): 246.

Shohamy, E. "Argument and entertainment: TESOL as Science". *Journal of the Imagination in Language Learning*.V. (2000): 10-12.

Shuster, D. H. and C. E. Gritton. *Suggestive Accelerated Learning Techniques*. New York: Gordon and Breach, 1986.

Simonton.D.K. "Socialcultural context of individual creativity: a transitional time series analysis." *Journal of Personality and Social Pyschology.* 32 (1975): 1119-1133.

—. "Creativity, Leadership and Chance." R. Sternberg (Ed.) *The Nature of Creativity.* New York: Cambridge University Press, 1988. 386- 426.

Souriau, P. *Theorie de l'invention*. Paris: Hachette, 1881.

Spaventa, L. (Ed.)—*Towards the Creative Teaching of English*. London: Heinemann Educational Books, 1980.

Springer, S and G. Deutsch. *Left Brain, Right Brain*. New York: Freeman, 1993.

Stein, M. I. *Stimulating Creativity*. New York: Academic Press, 1974.

Stephen, M. "Teachers talking about their classrooms: The use of metaphor to process knowledge." *IATEFL SIG Teacher Training Newsletter.* 1 (2000): 21-25.

Sternberg, R. J. Ed., *The Nature of Creativity*. New York: Cambridge University Press, 1988.

—. *The Handbook of Creativity*. Cambridge : Cambridge University Press,1999.

Stevick, E.W. *Teaching Languages: A way and ways*. London: Newbury House, 1980.

—. *Images and Options in the Language Classroom.* Cambridge: Cambridge University Press, 1989.

—. *Success with Foreign Languages*. New York: Prentice Hall, 1989.

—. "Imagination and Memory: Friends or Enemies? " *Journal of the Imagination in Language Learning*. 1/1 (1993): 8-18.

—. "Affect in learning and memory: from alchemy to chemistry". *Affect in Language Teaching.* J. Arnold. (Ed.)Cambridge: Cambridge University Press, 1999. 43-57.

Taylor, C. and F. Barron. *Scientific Creativity: its recognition and development.* New York: Wiley, 1963.

Thornbury, S. "Lesson Art and Design." *ELT Journal.* 53/1 (1999): 4- 11.

Torrance, E. P. *Guiding Creative Talent*. Englewood Cliffs NJ: Prentice Hall, 1962.

Turner,V. *The Ritual Process.* New York: Aldine, 1969.

Tye, M. *The Imagery Debate*. Cambridge MA: MIT Press, 1991.

Underhill, A. " Training, development and Teacher Education." *Teacher Development Newsletter.* 9 (1998): 4-7.

—. "Continuous professional development". *IATEFL Issues.* 48 (1999): 15-18.

—. "Facilitation in language teaching". *Affect in Language Teaching*. J. Arnold. (Ed.) Cambridge: Cambridge University Press, 1999. 125-141.

Ur, P. and A. Wright. *Five Minute Activities*. Cambridge: Cambridge University Press, 1992.

Vygotsky, L. *Thought and Language*. Cambridge MA: MIT Press, 1978.

Wallach, M. *The creativity - intelligence distinction*. New York: General Learning Press, 1971.

Wallach, M and N.Kogan. *Modes of thinking in young children*. New York: Holt, Rinehart and Winston, 1965.

Wallas, G. *The Art of Thought.* New York: General Learning Press, 1926.

Weiner, B*. Human Motivation: Metaphors, Theories and Research.* California: Sage Publications, 1992.

Weiner, N. *Cybernetics.* Cambridge MA. MIT Press, 1948.

Whitmore, D. *Psychosynthesis in Education*. Wellingborough: Thurston Press Limited, 1986.

Widdowson, H. "TESOL Art and Craft." *Journal of the Imagination in Language Learning*. 5 (2000): 14-15.

Wilson, A. "Why can't we let our children get bored?" *The Daily Telegraph*. 29 12 2000, 17.

Wilson, R. A. *Prometheus Rising*. New Falcon Publications, 1983.

Woodfield, H. and E. Lazarus. "Diaries: A reflective tool on an inset course". *ELT Journal.* 52/4 (1998): 315-322.

Woodward, T. " Splitting the atom: Language teacher training". *The Teacher Trainer.* 26/3. (1988): 20-23.

—. *Loop Input*. Canterbury: Pilgrims Publications, 1982.

—. *Models and Metaphors in Language Teaching*. Cambridge: Cambridge University Press, 1991.

—. *Ways of Training.* UK: Pilgrims Longman, 1992.

Wycoff, J. *Mindmapping*. New York: Berkeley Books, 1991.

Zdenek, M. *Right Brain Experience.* Santa Barbara CA: Two Roads Publishing, 1983.

DICTIONARIES AND ENCYCLOPEDIA.

Collins Cobuild English Language Dictionary. London: Collins, 1987.

Collins Dictionary of Literary Quotations. Ed. M. Stephens. Glasgow: Harper Collins, 1990.

Oxford Advanced Learner's Dictionary. Oxford: Oxford University Press. 1992.

Oxford Dictionary of Quotations. Ed. E. Knowles. Getty Centre for Education in the Arts, 1999.

The Art Book. London: Phaidon Press Limited, 1994.

The Cambridge Encyclopedia of Language. 2nd. Edition. D. Crystal. Cambridge: Cambridge University Press, 1997.

ELECTRONIC SOURCES

Articles

Addison, S., Claydon, T and L. McDowell. "Enabling students to be more Creative in Fashion and Systems Design". DfEE, 1999. 19 Oct 2000. <http://www.dfee.gov.uk/heqe/glossy.htm.>

Ballard.- " The role of sleep in language learning: What I learned as a Silent Way teacher". 2000. 15 March 2001. <http://www.uneeducationpourdemain.org>

Baron-Cohen. "Neonatal Synethesia Hypothesis". 1993. 14 Nov 2000. <http://psych.cs.monash.edu.au/v2/psyche>

Day, S. "Synaesthesia and Synaesthetic Metaphors". 1996. 6 June 2000. <http://psyche.cs.monash.edu.auv"/psyche-2-32-day.html>

Galan, M. and T, Maguire. "Flow in teaching and learning." 15 March 2001. <http://www.galeon.com/puntodepartida/flow.rtf>

Harnad, Stephen. "Creativity: Method or Magic?" The Cognitive Sciences Centre <http://www.cogsci.soton.ac.uk>

Landsberger. J. Thinking Aloud: Private Speech. Study Guides and Strategies-ISS Learning Centre. 18/1/2001. <http://www.iss.stthomas.edu/studyguides/thinkaloud.htm. >

Read, J.L. Enchanted Mind." 1998. 3 Oct 2000 <http://enchantedmind.com/html/memory.htm>

Reaser, Jamie. "The Seed and Its Environment. " Spring 2000 <http://nlpco.com/articles/nlp/TheSeed.htm

Lloyd, P. "Creative Space". 3 May 2001. >http://www.gocreate.com/Articles/cspace.htm>

Maguire, T. "Ten Ways to innovate and change learning in the classroom. " Humanising Language Teaching 2.2 (2000) 2 Feb. 2001 <http://wwwhlymag.co.uk/mar00/sart4.htm>

Martindale, C. " Creativity and the Brain." 1998. American Psychological Association. <http://www.apa.org.divisions/div10</articles / Martin W98.html >

O' Connor, J. " Creativity: The sex appeal of the intellect." 1997. Lambent Training. <http://www.lambent.com/nlp/>

Suler, J. Teaching Clinical Psychology: In class exercises May 1999. <http://www.rider.edu/users/suler/tcp.html>

Wenger, W. "You are brighter than you think" (Image Streaming) <http://www.anakin.com.brighter.bright.html>

Contributions from online discussion groups.

Harbord, J. " Deviation from the syllabus." Online Posting. TESL-L. 10 Jan 2001 < LISTSERV@CUNYVM.CUNY.EDU>

Snyder, B. " Lesson Planning." Online posting. TESL-L. 17 Feb. 2001. 18.Feb. 2001. < LISTSERV@CUNYVM.CUNY.EDU

—. " Deviation from the Syllabus." Online Posting. TESL-L. 10 Jan. 2001. 12 Jan. 2001. < LISTSERV@CUNYVM.CUNY.EDU>

General interest

Brain Gym. Educational Kinesiology Foundation. <http://www.braingym.org/index.html.

British Government Office for Standards in Education. < http://www.ofsted.gov.uk/public/index.htm

Caleb Gattegno & Silent Way teaching. <http://www.uneeducationpourdemain.org>

Concept mapping and curriculum. Walker Teaching Resource Centre.The University of Tennessee at Chattanooga. 24 Jan 2001. <http:www.utc.edu/ Teaching Resource-center/concepts.html>

Creativity and Colour.

Linda Naiman 2000. <http://www.creativityatwork.com/colour.htm >

Harvard Project Zero. President and fellows of Harvard College, 2000. < http://pzweb.harvard.edu/Default.htm >

International Synaesthesia Association. < http://www.psychiatry.cam.ac.uk/isa/frames.html

Project Zero Research Projects. President and Fellows of Harvard College, 2000. <http://pzweb.harvard.edu/Research/Research.htm

Society for Effective Affective Learning. (SEAL) - The International Learning Community < http://www.seal.org.uk/

Mindmapping information and programmes online

Axon Concepts. Chan Bok. 2001<http://web.signet.com>

The Graphic Organiser. <http://www.graphic.org>

Lanzing, J. The concept mapping homepage. http://www.to.utwente.nl/user/ism/lanzing /cm_home.htm.

Mindjet: Visual Thinking. <http://www.mindman.com>

JCV Study Skills Online: Mindmapping. http://www.tld.jcu.edu.au/netshare/learn/mindmap/index.html

Inspiration Software Inc. <http://www.inspiration.com>

Discussion lists on line

Creativity in Education <http://www.mailbase.ac.uk/lists/creativity-in-education>

TESL-L <LISTSERV@CUNYVM.CUNY.EDU>

Online information and web sites related to NLP.

Robert Dilt's web site. **<** http://www.nlpu.com/>

Richard Bandler's web site. < http://www.purenlp.com/nlpfaqr.htm>

Association for Neuro-Linguistic Programming web site.>http://www.anlp.org/>

Lambent Training. Joseph O'Connor <http://www.lambent.com/nlp/>

NLP Information Centre.<http://www.nlp.info.com.>

NLP Research Data Base. < http: www//nlp.de/research>

International Training Seminars- online NLP Training.Ian McDermott.< http://www.nlp-community.com>

R.A.Wilson's Web site. <http://www.rawilson.com.main.shtml >

Appendices

Introduction

The main aim of this appendix is to put into a practical perspective, within the context of teaching, some of the points and considerations which have emerged from this study. Just as it has been said that creativity is more than just having a good imagination, to be creative the results of creative processes need to be given form and substance, they cannot remain only as theoretical ideas in someone's mind.

The elements offered in this appendix fall into several categories:

- they expand on points mentioned in the body of the study
- they provide practical examples of activities for developing creativity both personally and within the context of teaching and learning
- they provide insights into the responses of students who have taken part in a variety of activities and which form a vital part of the "dialogue" that is necessary for creative teaching and learning to take place.

We do not claim high levels of creativity for the feedback and responses that the students have produced, we do however see much potential for future development. From these starting points can be provided the all important "dialogues" where students can become involved, giving them opportunities to express themselves in a variety of ways, to share and be open to their own responses and those of others and to provide the basis for the development of creative teaching / learning situations through ongoing feedback. Through these types of considerations we are opening the gates to creativity, allowing the creative flow to start and gather momentum, rather than constructing obstacles and blocks to creativity, which can hinder and impede rather than aid, learning processes. Sometimes making what seem to be small changes in classroom practice, which move towards more creative approaches, can in fact bring about a disproportionally high pay-off in students' involvement, attitudes and attainment in learning and personal development.

All the feedback activities we describe have been used in many different contexts and although the focus in this study has been on University students on pre-service

teacher training courses, the activities lend themselves to all types of teaching learning situations, only requiring a little rethinking to adapt them to different contexts.

Similarly the creative activities we have proposed for use in language classrooms have also been tried and tested in a variety of teaching situations with learners of different levels. They do not necessarily require high levels of English, many can be used with students with who have quite low levels. The relaxation and visualisation exercises can be beneficial for all levels and help to facilitate learning processes by putting learners into relaxed and attentive states, where they are more receptive and moreover where they are more likely to tap into their own creative resources, providing starting points for creative expression which draw on and reinforce the language learning process.

The sources of the activities are various, we have drawn on different areas and where the originator of the activity is known we have accredited it to them. However we have to recognise that any creative process is necessarily a process of synthesis, reformulation and juxtaposition of elements, a process that is not always a conscious one, and so while we feel that some of these activities are original and of our own devising, inevitably they may reveal links and interconnections with the work and ideas of others.

With all the activities proposed, we have suggested possible procedures for their implementation into classroom situations. While following these procedures may be useful starting points, it is important to emphasise that they are just that, starting points, and each teacher concerned with the importance of creative teaching, will need to be open to and aware of how students respond and react to the activities. In accordance with the unfolding quality of creative teaching they will need to respond in turn by evolving new variations, trying out different possibilities and being sensitively aware to the ongoing teaching learning situation and those involved in it.

APPENDIX 1

QUESTIONS ON VISUALISING AND OTHER ALLIED FACULTIES:
Galton's [1] "Breakfast Table Questionnaire"

The object of these Questions is to elicit the degree in which different persons possess the power of seeing images in their mind's eye, and of reviving past sensations.

From enquiries I have already made, it appears that remarkable variations exist both in the strength and in the quality of these faculties, and it is highly probable that a statistical inquiry into them will throw light upon more than one psychological problem.

Before addressing yourself to any of the Questions below, think of some definite object – suppose it is your breakfast-table as you sat at it this morning- and consider carefully the picture that arises before your mind's eye.

1. **Illumination:** Is the image dim or fairly clear? Is its brightness comparable to that of the actual scene?

2. **Definition:** Are all the objects pretty well defined at the same time, or is the place of sharpest definition at any one moment more contracted than it is in a real scene?

3. **Colouring**: Are the colours of the china, of the toast, breadcrust, mustard, meat, parsley, or whatever may have been on the table, quite distinct and natural?

4. **Extent of the field of view:** Call up the image of some panoramic view (the walls of your room might suffice), can you force yourself to see mentally a

[1] Galton, F. 1883 'Questions on visualising and other allied faculties' in Inquiries into Human Faculty and its Development (pp 378- 380) cited in Richardson (1999: 11)

wider range of it than could be taken in by any single glance of the eyes? Can you mentally see more than three faces of a die, or more than one hemisphere of as globe at the same instant of time?

5. **Distance of images**: Where do mental pictures appear to be situated? Within the head, within the eyeball, just in front of the eyes, or at a distance corresponding to reality? Can you project an image upon a piece of paper?

6. **Command over images:** Can you retain a mental picture steadily before the eyes? When you do so, does it grow brighter or dimmer? When the act of retaining it becomes wearisome, in what part of the head or eyeball is the fatigue felt?

7. **Persons:** Can you recall with distinctness the features of all near relations and many other persons? Can you at will cause your mental your mental image of any or all of them to sit, stand, or turn slowly around? Can you deliberately seat the image of a well-known person in a chair and see it with enough distinctness to enable you to sketch it leisurely? (supposing yourself able to draw)

8. **Scenery:** Do you preserve the recollection of scenery with much precision of detail, and do you find pleasure in dwelling on it? Can you easily form mental pictures from the descriptions of scenery that are so frequently met with in novels and books of travel?

9. **Comparison with reality**: What differences do you perceive between a very vivid mental picture called up in the dark, and a real scene? Have you ever mistaken a mental image for reality when in health and wide- awake?

10. **Numerals and dates**: Are these invariably associated in your mind with any particular mental imagery, whether written or printed figures, diagrams, or colours? If so explain fully, and say if you can account for the association.

11. **Specialities:** If you happen to have special aptitudes for mechanics, mathematics (either geometry of three dimensions or pure analysis), mental arithmetic, or chess playing blindfold, please explain fully how far your processes depend on the use of visual images, and how far otherwise?

12. Call up before your imagination the objects specified in the six following paragraphs, numbered A to F, and consider carefully whether your mental representation of them generally is in each group very faint, fair, good, or vivid and comparable to the actual sensation:

a) Light and colour: An evenly clouded sky (omitting all landscape), first bright, then gloomy. A thick surrounding haze, first white, then successively blue, yellow, green, and red.

b) Sound: The beat of rain against the window panes, the crack of a whip, a church bell, the hum of bees, the whistle of a railway, the clinking of tea-spoons and saucers, the slam of a door.

c) Smells: Tar, roses, an oil-lamp blown out, hay, violets, a fur coat, gas, tobacco.

d) Tastes: Salt, sugar, lemon juice, raisins, chocolate, currant jelly.

e) Touch: Velvet, silk, soap, gum, dough, a crisp dead leaf, the prick of a pin.

f) Other sensations: Heat, hunger, cold, thirst, fatigue, fever, drowsiness, a bad cold.

13. Music: Have you any aptitude for mentally recalling music, or for imagining it?

14. At different ages: do you recollect what your powers of visualising etc., were like in childhood? Have they varied much within your recollection?

General remarks. Supplementary information written here, or on a separate piece of paper, will be acceptable.

APPENDIX 2

LAWLOR'S[2] PERSONAL IMAGERY QUESTIONNAIRE.

This questionnaire is not intended as research tool, but rather as personal aid to finding out what sensory modalities one is most able draw upon, and to identify areas which could be worked on and where personal imagery could be developed. This may be beneficial in many ways and can be used in many contexts including classroom situations. With more importance being given to affective aspects of human behaviour there is growing recognition of the part the emotions play in thinking and learning processes. The ability to engage the imaging faculty associated with right brain thinking and the emotions of the limbic system is a valuable asset often ignored in teaching learning processes. The power of imagery and its effect on attitudes and behaviour is an important consideration in creating optimum learning. In any group of people there will be great variety in their ability to access personal imagery. Much depends on natural tendencies to process information in visual, auditory or kinaesthetic/ tactile ways.

Before starting to answer the questionnaire, as in any activity which requires accessing personal imagery it is a good idea to close the eyes, relax the body and breathe deeply a few times to be more calm and receptive to stimuli to be met. The exercise can be done with someone reading out, in a sensitive and not too strident voice, the sensory prompts. To experience it for oneself the prompts could be pre recorded on a tape so that the attention can be focused on listening. When the image is as clear as one can make it, one can open ones eyes and write down a rating in accordance with the following scale:

- fairly clear 2,
- vague but recognisable 1,
- little or no image 0

[2] Lawlor.M. 1988 Inner Track Learning Pilgrims Publications (pp 17- 20)

1. Visual: Visualise the following:

A candle flame

A red sunset

Swans flying

A hand writing your name on a black board

A red triangle on green paper

A three digit number written in blue on a white board

Waves breaking on a beach

Yourself getting into a car

The outside of the building you live in.

2. Auditory: Imagine the following sounds.

A deep gong reverberating

A telephone ringing

A voice calling your name

The noise of traffic

Children playing

A pigeon cooing

A jet aeroplane passing overhead

A stone falling into a lake

Voices in the next room

A favourite piece of music

3. Kinaesthetic: Imagine what it feels like to be:

Chopping wood energetically

Running slowly along a wet beach

Swimming in the sea

Playing a ball game

Driving a car

4. Tactile:

Imagine the feeling of touching:

Sandpaper

Silk

An orange

A cat

Someone's hand

After completing the questionnaire the scores should be added up. The author gives guidelines as to one's ability to create multi-sensory images according to the scores obtained and suggests that lower scores can be improved with regular practice. Lawlor points out too that people will probably score more highly in one or other of the categories and that an exercise such as this highlights areas which can be developed in order to enhance responses in other sensory modes, and it is by bringing all the sensory modalities which makes for powerful and memorable images. As one function of strong imagery is in the area of affective programming, Lawlor points to how the generation of potent multi-sensory imagery internally generated, works on the mind just as powerfully as messages coming from the outside world. We have used an adapted version of this activity with students and it is worth bearing in mind that some prompts may be more relevant in some cultures than others. The teacher can of course adapt the prompts to include others that may be more relevant and evocative for the particular students one is working with.

Lawlor suggests that a score of 75 or more suggests the ability to create multi-sensory images which can be accessed in many areas of life including learning and studying. Between 40 and 74 suggests a reasonably good imaging ability that can be used in many areas but which could be developed. A score of 39 or less suggests difficulty in imaging and of restricted benefit for use in many contexts, but nevertheless an area which like any other skill, can be usefully be developed with practice.

APPENDIX 3

THE VAK TEST[3]

A sensory imagery test on similar lines to that of Lawlor's (appendix 2)

Follow each instruction in your head and give yourself a mark.

0 –impossible, 1- difficult, 2-OK 3 – easy

Read and imagine:

Visual:

See a kangaroo

See your front door

See your toothbrush

See a friend's face

See a plate of food

See a TV show

Watch a TV screen change

Auditory:

Hear a song

Hear rain

Hear a fire alarm

Hear a friend's voice

Hear your own voice

Hear birds singing

Hear the birdsong change to call of alarm

[3] VAK– Visual, auditory, kinaesthetic. In Revell, J & S. Norman 1997 In your Hands Saffire Press (p36)

Kinaesthetic:

Feel excited

Feel yourself swimming

Feel grass under your feet

Feel a cat on your lap

Feel hot

Feel your fingers on a piano keyboard

Feel your fingers playing a few notes.

Add up your scores for each sense on finishing the test.

Does the highest score correspond with what you think your preferred sensory system is? How did you do when it came to changing the scenes slightly? Think of ways to enhance the systems you don't find so easy.

APPENDIX 4

VISUALISATION AND IMAGING EXERCISES

In order to develop powers of generating personal imagery Lawlor (1988) suggests that exercises like the following, if practised regularly will help reactivate dormant powers of mental imagery. Ideally a little time each day should be devoted to the exercises. While this would be possible for someone working individually, it may be difficult in many teaching situations. However, any teacher wishing to help students develop their imaging muscles for the benefits this can bring to learning processes and particularly where the aim is to work towards personally creative outcomes, could break down the activity into a series of short activities. In this way the exercises can be seen as having an (at least) dual purpose. While working on the ability to form mental images they also provide excellent listening or reading practice. Some are followed by a task and others could be followed up briefly with students comparing experiences, which involves expressing one's ideas and images in words, thus providing opportunities for vocabulary enrichment and speaking practice.

The exercises work on visual, auditory, kinaesthetic, tactile, gustatory, olfactory and multi-sensory imaging.

Visual

a) Get an apple (or other fruit) and put it on the table in front of you. Look at it without wavering for a full minute. Close your eyes and try to recall exactly what it looks like. Open your eyes and check the real appearance. Close your eyes and visualise it again, adding any details you omitted.

b) Take a piece of paper and draw on it a coloured triangle. Any colour will do, but the brighter the better. Close your eyes and try to visualise another identical triangle beside it, so that you are seeing two triangles. Do the same with a circle and a triangle round it.

c) Write your name on a piece of paper and watch your hand doing it. Close your eyes and try to see it happening again. Now visualise another hand, using different handwriting, writing your name.

d) Look at a black and white photograph or picture. Study it carefully for two minutes. Close your eyes and try to recall what it looks like. Try to describe it to a friend or into a tape recorder.

e) Look at a large coloured photograph or, preferably, a coloured picture on the wall. Study it carefully for three minutes. Close your eyes and try to recall what it looks like. Try to describe it as before, or reproduce it as a drawing.

f) Choose a coloured picture with a person or people in it. Study it carefully. Now try to imagine what it is like to be in the picture, seeing everything from the point of view of one of the people. Don't be discouraged if you find this difficult. Keep trying and it will gradually come. Describe what you see to a friend or into a tape recorder.

Auditory

a) Produce a sound, such as knocking on a wood, scratching metal or whistling, try to recreate the sound in your mind. Repeat it several times each time trying to recall more clearly what it was like.

b) Imagine someone in your family calling your name.

c) Hear in your mind the sound of the waves breaking on the seashore

d) Create the sound of the voices of two friends having a conversation.

Kinaesthetic

a) Get up, walk to the door and return to your seat. Try to recreate in your mind the exact muscular sensations and movements of the limbs involved in the action.

b) Imagine the feeling of running along a beach. Feel the movement of your body.

c) In your imagination, dive into the water and swim. Feel the whole body moving rhythmically in the water.

d) Imagine yourself playing a game, such as tennis or football. Be aware of all the movements you are making.

Tactile

a) Run your fingers over some cloth and experience the feeling of the texture. Close your eyes and try to recreate this feeling. Repeat this several times with other materials, such as wood, metal and plastic.

b) Imagine what it feels like to run your hand along velvet, then silk, then sandpaper and then polished wood.

c) See yourself in the kitchen and dipping your finger into a saucepan of very hot soup. Feel the heat.

d) Imagine yourself stepping under a cold shower. Feel the sudden shock of the cold water.

Gustatory

a) Pick up an apple or other fruit and take a bite out of it. Allow a few minutes to go by and try to recall the taste. Do the same with other fruits and different foods.

b) Imagine yourself drinking a cup of freshly ground coffee. Experience the delicious taste. Do the same with some foods you like, perhaps an ice cream, a salad or a pizza – and with some foods and drinks you do not like.

c) Imagine yourself in an expensive restaurant eating a three-course meal of your choice. Experience the taste of each dish and of each item of food on it.

Olfactory

a) Find a flower or perfume and smell it. Close your eyes and try to recapture the smell. Repeat several times and experiment with other smells, such as food in the kitchen, books or animals.

b) Imagine the smell of a steak being grilled, of onions frying, of good wine in a glass, or a rose, damp grass, of a familiar perfume, of traffic fumes, of salt sea air.

Multi-sensory

a) Look at a coloured picture with people in it. Imagine yourself inside it.

Describe the scene in multi-sensory terms. You are one of the people in the scene. Describe to a friend or to a tape recorder exactly what it feels like to

be there. What sounds do you hear? What are the people saying? Move around and describe the kinaesthetic sensations. Touch some of the objects in the scene and describe the feeling. Can you feel what the temperature is like? Are you aware of any smells? Can you taste anything? Do the same with other pictures, until you can enter into and describe the scene without difficulty.

b) Imagine yourself transported into the future- say ten years ahead. Choose a place and exact time of day and describe it in the same way you did the inside of the picture. Give full details to everything you can see, hear, feel, touch, smell and taste

c) Call to mind a difficult conversation you have had recently. Visualise the scene and what was said. Now step inside the body of the person you were talking to and experience the conversation from his or her point of view. Describe the room, your feelings, and what was said in detail

Exercises adapted from

Lawlor.M 1988 *Inner Track Learning* Pilgrims Publications

APPENDIX 5

GUIDED VISUALISATIONS

This appendix includes various examples of guided visualisations, which have been mentioned in the main body of this study. The first three could be used at almost any stage in a lesson but are especially useful for changing state, relaxing or re-energising learners at the beginning of a session or before some activity when a change in the mental state is desired. It is important to set the scene before such activities making sure that learners are calm and relaxed and at the same time focused and alert. We suggest a procedure for carrying out before the actual guided visualisation to help achieve this. It is important also to be aware that it may be necessary to start with simple relaxing activities before embarking on longer ones and to get learners used to the idea little by little by when necessary. Activities like these can be incorporated in class to bring about improved conditions for learning and concentration and also to help learners hone their imaging faculties. Teachers will be aware that not all learners will be able to respond to the same degree and for some it may at first be difficult to produce images. In this case learners could be encouraged to simply relax and notice how they feel and be encouraged to let the images come gradually in subsequent sessions.

Where the exercises have not been accredited to a particular author they have been designed by the present author. However it is often difficult to be completely original, as inevitably we are all influenced by our reading and experiences.

All the guided activities offered here share the common aims of putting students into a relaxed yet receptive state and drawing on the personal imagery and associations of each individual in the group. Some also have more specific objectives, as for example in preparing and orienting learners towards some particular area that they are later going to work on in class. In these cases the exercise can help to make the theme more personal and to allow the students to enter into the situation more fully than if, as usually happens the subject matter is imposed on students by teachers. All of the exercises draw on mental imagery but some focus on the overlap of the senses more than others. Whatever else these exercises provide, in

language classes they are useful for the focused listening and attention they promote and for the language and speaking they can generate, interesting for students as the content has been generated in their own minds and based on their own experiences both in relation to the experience of the visualisation and the personal associations they draw on.

A possible pre- procedure to follow:

- Tell students what is going to happen, that they are going to listen and respond, in their own minds and in their own way to the words they hear. If the teacher thinks there may be words learners will not understand and which might stop the flow of the activity, then a suitable way of explaining a few key words should be dealt with before starting on the guided visualisation itself.

- Get students to sit in a relaxed yet balanced position. One good and easily accessible position is sitting comfortably on chairs with backs straight, and heads comfortably balanced on top of their spines. Both feet should be on the floor, and the hands relaxed on the thighs. Get learners to breathe in and out deeply and slowly a few times, each time with the out breath trying to relax and notice the release of tension.

- Put some selected music on to play. The music should be not so loud as to intrude too much and also to allow the teacher's your voice to be heard without straining to catch the words. In a language laboratory we give students the choice of listening to the music over the loudspeakers or through the headphones, the latter alternative is usually chosen because they can be more inside their heads and less distracted by the surroundings. It can of course be done with any music playing equipment. Suggest that learners close their eyes. Some people can feel a bit vulnerable doing this, but most end up closing their eyes as they realise they can enter into the activity better this way.

- Speak or read the guided visualisation to your students, modulate the voice so that although students should be able to hear you clearly and be guided by your voice it should not intrude too much. Speak slowly and clearly aiming to make the voice flow smoothly without undue emphasis on particular areas. Use plenty of pauses to let learners conjure up their own images. At the end of the visualisation, allow people plenty of time for them to come back gently to the reality of the classroom.

- A bonus for teachers is generally the positive reactions of the learners and their relaxed smiling faces.

- These activities as we pointed out above can be left to stand for themselves or can lead on to some kind of follow up activities. Sometimes however, there are times when the activities can simply speak for themselves especially when students have become accustomed to them and realise the benefits for concentration and relaxed states of mind.

The visualisations:

5.1. The waterfall of white light

5.2. Breathing colour

5.2.1. Student responses to the activity Breathing Colours.

5.3. The joy bubble

5.4. The cloud

5.5. A journey

5.6. Crossing senses

5.7. Time travelling

5.8. Cultural anthropology

5.1. Waterfall of white light

This is a short activity which can be used with learners of all ages. The approximate words the teachers speaks are as follows.

"Close your eyes and begin to focus your attention on your breath. Give yourself the suggestion that with each exhalation your body becomes more and more relaxed. Now imagine that a beautiful waterfall of white light is entering the top of your head. You feel its gentle healing energy throughout your brain and pouring over your face, your chin, and your neck. The waterfall of white light now continues to move into your chest and shoulders and back. It moves down your arms and hands and our through your fingertips, taking with it any stress that you have held in your body. The white light continues to flow into your abdomen, your solar plexus, your pelvis and buttocks. It continues moving down into your thighs, knees and calves. Now it enters

your ankles and feet and goes out through your toes, taking with it any stress or discomfort that you have stored in your body. Now you are in a continuous waterfall of white light. Every part of your being is filled with white light. Allow this energy to wash over you, and enjoy the gentle calm it brings. (Pause one minute) Now slowly bring yourself back to full waking consciousness. I will count to ten. Join me counting aloud at six, and open your eyes at ten, feeling relaxed and alert.

One … two…three… four …five…six…seven…eight…nine …ten"

Murdock (1987) uses this activity with very young children and offers these responses to the waterfall exercises:

- "The waterfall came down over my head and splashed up and down and it kept going over and over from my head to my toes" (Heather aged five)
- "The waterfall made me feel warm and tingly, I felt peaceful" (Sid aged eight)

We have successfully used this visualisation with students of different ages and interests. In a workshop on raising awareness to the power of personal imagery we were surprised by the amount and variety of responses contributed by the participants. Some of those responses appear in section III on Imagery.

Guided visualisation based on Murdock. M. 1987 *Spinning Inward* Shambhala Publications (p 22).

5.2. Breathing colour

In this short visualisation a text as such is not necessary and we have outlined a possible procedure instead. This is a short activity and is particularly useful as a state changing exercise which re-energises students. The teacher should decide how much and which vocabulary needs to be taught beforehand to allow the activity to flow smoothly without major blocks in understanding. We have found that for most levels of students who have not done the exercise before it is useful before starting the pre-activity relaxation to spend a few minutes eliciting colours from the students as apart from reminding them of colour vocabulary, it also gets them thinking a bit about colours in advance of the activity. It is also useful to ask learners to jot down a few words to describe how they feel before you even start on the exercise. Later they can compare it with how they feel afterwards.

1. Get students into a relaxed posture, balanced, centred, spine straight, head on top of spine, feet flat on floor, arms relaxed and hands loosely on thighs, eyes

closed. Make them aware of their breathing, to be aware of their breath going in and out.

2. When this has been achieved tell them to breath in and imagine that are breathing in a colour, slowly and gradually, first filling their lungs, then with each consequent breath letting the colour suffuse their bodies, right to the tips of their fingers and toes. They can imagine the colour in their body for a few seconds and notice how it feels, to be filled with colour. They should try to 'see' themselves suffused with colour. Then after a few seconds gradually, with each out breath, let the colour drain out again.

3. Before the mood breaks ask questions like, what colour did you intuitively choose? How did it feel with the colour inside you ? How did it feel when the colour had gone? What made you choose the colour you did? What was the colour like? Was it; liquid, flowing, pulsating, still, vibrant, sparkling, charged with energy, water colour, solid colour, Did you want to keep the colour in? Do you feel the same now as you did before the activity?

4. Let them think about their experiences before they speak about it out loud, then share them with others if this seems suitable.

   This activity can be repeated in different lessons. Students may wish to experience the same colour or experiment with different colours to notice the difference in effect that the imagined colours produce on their minds and bodies. Some interesting work can be done exploring the effects of different colours on our moods and responses, on states of relaxation and concentration and so on. Sources of information on the psychology of colours are many, one comprehensive resource is to be found at the following internet website:

   <http://www.creativityatwork.com/colour.htm>

This activity was inspired by Chopra (1993).

5.2.1. Student responses to the activity Breathing Colours

This collection of responses was gathered from a group of students involved in a pre-service teacher training course[4]. The activity thus had several objectives; it

[4] 4th year students of English Philology at the University of Jaén 1999-2000, following a course of Enseñanza del Inglés en el Aula/ Classroom Management

was intended as something different, it was intended as a state changer, in this case as something between a relaxing type of activity and yet also as a re-energiser, as the students were in their last class of the morning session 13.30-14,30 having started classes at 08.30. Also in keeping with loop input and experiential type of activities it was designed primarily for the students themselves but with the secondary purpose of giving them as future teachers an insight into the possibilities of doing such activities with their own students in their future teaching situations

It is also should also be pointed out that the feedback on the activity was not obligatory. Students were filling in a questionnaire on another aspect of their course and the suggestion was made to them that they might like to add a comment at the foot of the page as to their responses to the 'Breathing colour' activity with which they had started the class.

No changes have been made to the words the students themselves used.

- I think that this activity is a good example of a very useful creative activity because it is shocking[5] for the student, as it is not a very common one. Moreover it is useful to teach learners for example new vocabulary and in order to relax them before the class.
- I wish it was a custom
- I felt very good with the activity. I chose the colour blue, but I don't know why. Blue came to me as a kind of dust blown by the air. And I didn't like the feeling of the blue going out of me, I wanted to keep it inside me.
- Today's choosing a colour in our mind has been personally a very positive and relaxing activity: I have enjoyed it. It's imaginative, curious, easy and funny. I liked soft blue.
- It was an experience!
- I felt rather 'green ' after the experience of colours.
- It has created in me a lovely feeling of relaxation. I saw a wonderful bright blue ocean in my mind and it made me remember past events. When I was in Trafalgar seeing the Atlantic and Mediterranean when I was fourteen.

[5] We have commented elsewhere in this study of the tendency Spanish speakers' of English to use 'shocking' with its negative connotations in English, when it may have been that they wished to convey the idea of surprise, because the word appears in a comment which is of a positive nature.

- I found it quite interesting, but maybe with teenagers, it's not always useful because they may not take it seriously at all.

- I enjoyed it a lot. I will experience it with different colours.

- From my point of view the activity done in class has been a new experience in my life. It helped to relax and I think it is a curious /strange activity because after I felt less tense and a little happier.

- Although it hasn't been a positive experience[6] for me, I think that it's a good way of making us think about ways of relaxing.

- The experience done in class today has been very interesting and I would like to repeat it again. I feel very relaxed and as if nothing exists in that precise moment except me. I would have liked not to open my eyes.

- With the previous activity I felt much better than I did at the beginning. I have found the strength I was looking for. I felt my body being entered by a terrific sensation of orange purifying my body and mind.

- I would like to repeat the activity because it made me feel very relaxed.

- As for today's experience it has been a relaxing one, a complete surprise, I enjoyed it very much and I'd like to use it some day, with my own pupils.

- In relation to the activity we have done today, I particularly liked it, because after our hard day of classes, I have felt very relaxed. I imagined the colour green was invading me, but in a very solid and rigid way. I have felt imprisoned so when I had to leave it out, I felt released and relaxed. My tension has been released.

- I am accustomed to doing this type of exercise. I've really enjoyed it because I really experience the relaxation. It's quite curious that in the first words I wrote about how I felt I was ' tired + energy' (it meant that I felt 'energy' because I have to stay here till eight o'clock this evening …And the colour I experienced was yellow and I felt the energy too. (But I didn't remember that I had written this same thought first)

- It's a break and relaxing and what relaxes me most is to know that this is the last hour.

---

[6] The student who wrote this said after the activity that he had chosen beige and that this accounted for his negative feelings about the experience. Interesting discussions here could be opened up with students about the psychological effects of colours upon our states of mind and feelings

- It has been really nice, attractive. It's quite necessary, after sitting here for five hours, the whole morning, with your mind full of ideas, I really liked it and felt really relaxed.
- The activity has made me relax- I was tense, tired, and hungry, due to the time, but the 'blue' has provoked in me relaxation
- Mainly positive, though the classroom furniture and atmosphere is not always the one you would choose.

As we pointed out above not all the students wrote comments, but in the immediate moments after the activity oral feedback revealed a variety of responses. The written comments reflect their feelings about the activity after having been involved in other activities during the lesson time. Amongst a variety of responses, references to feelings of relaxation and reduction of stress in a group of students for whom this was the last class of the morning is notable. Also interesting are the specific comments they made related to the colour they chose and which could lead to many other activities related to the effect of colour in our lives.

5.3. The joy bubble

This is an activity to re-energise, to change state, and to change focus from external concerns and centre students inside their minds and bodies. It is useful for refocusing attention before a new activity that requires concentration, creativity and thought.

Students need to be standing for this activity and relaxed. If the classroom is crowded get students to move into a space where they are able to extend their arms.

Start by encouraging students to relive the sensation of an exhilarating experience they have had and to try to recapture the feelings they had then of being happy, vibrant, positive, carefree etc. They could focus on a visual image, a loving memory, some moment of triumph from the past, anything that brings the sensation of exhilaration back to them. Reassure them that even if the memory is only faint it doesn't matter.

When you think they have got a clear memory to focus on, then get students to slowly breathe in through the nose and as they do so to move let their arms move slowly out and up. They should try to imagine that as they inhale their breath is expanding from the centre of their chest. It is an expanding light that makes their arms float effortlessly open, and as the light expands the happy exhilarating feeling expands with it. They might want to imagine the light as a glowing blue white ball of light, or just as a sensation. They can let the light grow as quickly or as slowly as

they want, spreading from the centre of the heart, reaching out to the tips of their fingers, up to the head and down to the toes. If they find they are smiling they should let that grow too

When they have reached the point of maximum extension they should slowly start bringing their arms back down to the sides exhaling slowly. They should take the expanded feeling or light, back down into the chest until it is small and localised in the heart again. As the arms come back to the sides, they should let the head drop. Repeat the exercise on the next breath and stay with the feeling. They might imagine themselves opening and closing like a flower. With each inhalation they can begin to open up even more rising on tiptoes, as they exhale slump like a rag doll. The movements shouldn't speed up but proceed slowly and rhythmically.

It is probably a good idea if students have had some experience of less physical types of exercise as for example 'breathing colour' before doing this activity.

We see this type of activity as complete in itself and although it could be followed up, with for example, speaking and listening to compare experiences, its value mainly lies in the energy generated and the centring it provides, before some other activity.

This activity was inspired by Chopra (1993).

5.4. The cloud

Get student into a relaxed state (see suggested procedure above). Tell students to sit comfortably, to close their eyes and breathe deeply and slowly. Tell them that you are going to give them some cues to which they should try to respond with an image in their mind's eye. They should try to hold the image for several moments, coming back to the image if their attention wanders. Ask them to respond as completely as possible using all their senses. A sparkling swimming pool, a tall tree, a white flower, 'chocolate and churros', the sound of bells ringing, the moon, a cool clear stream, yourself running along a beach, a red rose… Now visualise a soft white cloud high up in a very blue sky… make it come nearer… make it smaller… make it bigger… change its shape to resemble a rabbit, a fish, now it changes into the shape of a house with a chimney and lovely white smoke coming out of it. Notice now how the smoke is beginning to write your name in the sky…

The visualisation can stop here, bringing the students gently back to the classroom. A nice way to finish is to ask students to draw how their name looked written in the white smoke. If they wish they can share their experiences and their drawings.

This is a useful short visualisation which relaxes and centres students and also helps to develop the imaging faculty. Obviously the cues can be changed to suit the lives and culture of the students one is working with. It is nice to include something very typical to the culture of the students to make it especially relevant to them. In the above example we included a typical Spanish breakfast, a hot chocolate drink and 'churros' (a type of freshly fried doughnut).

This visualisation has been adapted from Neville (1989: 93-4)

5.5. Journey

The pre-visualisation procedure we suggested above should be used before this activity. Music is an influential element in this visualisation and the type of music selected may have an important effect on the students' imagery.

The words the students hear follow below. The teacher can read the words or improvise if they wish, but it is important to have a clear idea of the direction the visualisation is to take. Students do not respond in words, but by allowing the voice they hear to guide then on a personal, internal journey

"Let the music surround you

You are in the music

You are in the place the music creates in your mind

Are you moving? Sitting? Standing still?

If you are moving is it by your own energy or in a vehicle of some kind?

Are you on land? Above the land? In the air? On water? Under water?

What time of day is it?

What season is it?

What are the predominate colours you see?

Are you alone? Are you with someone? Other people?

Are you in a real or imagined landscape?

Which of your senses are you most aware of? sight? hearing? smell? taste? touch? movement?

How do you feel?

Breathe deeply and slowly

Look slowly around you in your imagined place

Stop and pick something up, from the ground, or perhaps from a tree, or a plant.

Hold it gently in the palm of your hand

How does it feel? hard? soft? light? heavy? warm? cool? smooth? rough?

Does it have a perfume? Does it remind you of anything?

Move it gently in your hand.

Now put one hand gently over the other to enclose the thing you have collected. Soon you are going to bring it back here with you. Enjoy a few more seconds in your imagined place, then when you are ready gently return to the classroom, and then, open your eyes…"

Possible follow up activities

1. Simply leave people to enjoy the experience and bask in its after effects.

2. If it seems suitable within the group, students can exchange and compare their responses orally. If there are things they do not wish to reveal they should not be forced to. We have always found that students have been ready to exchange their responses together in class. However in learning journals students have sometimes added details which they point out they did not share with others in class.

3. With this visualisation it is interesting for students to say what they brought back from their journey with them and to describe it.

4. Vocabulary enrichment. As the participants have been responding freely to the guided journey there may well be words or concepts they wish to express in English later. As the experience is often so vivid it is an ideal opportunity to feed in or discuss the vocabulary they need. As it comes out of an affective activity the vocabulary will be learnt and remembered easily.

5. Creative writing; whether as a direct result of the guided visualisation or less directly from something suggested to them by it and by the creative relaxed

atmosphere this could lead perfectly into the writing of a short story or a poem. A feedback session conducted orally or written, on their feelings about this type of activity. That is, not necessarily the specific images and feelings conjured up for them by the particular guided visualisation, but rather their reactions to this type of activity, how they felt doing it, how they felt after doing it, how it affected what they did next.

6. A similar journey could be done in another lesson, using different music. Experiences could be compared to see what difference the music and the different occasion made to the overall experience.

5. 6. Crossing senses

This is a guided imagery exercise which taps into and recognises the power of synesthesia or cross sensory experiencing of input. Different people experience different levels of synesthesia and cases of people who experience extreme synesthesia as a normal part of their lives have been documented. It has been shown that babies experience the world synesthetically, although the faculty diminishes after a few months of age. It is a faculty which lies latent and which perhaps could be developed through use. For most people, just as the ability to conjure up images in the mind can fall out of use and thus narrow our experience of the world so does the experience of cross-sensory experience. Poets use the synesthesia of metaphor to convey and heighten their ideas and experiences to themselves and their readers, but it is not an area reserved for special use. It can be drawn to enrich personal experiences that can be expressed through language.

"Lie down or sit down in a position that you can maintain for a while. Close your eyes and focus your attention on your breath. Breathe in and out as your body becomes more and more relaxed. In a moment you will hear some music and you will listen to the music with your toes as you actually breathe the music in through your toes. Now you breathe the music in through your fingertips. Feel the music with your eyes, nose, and mouth, and now feel it with every hair on your body. (Pause one minute) And now you begin to experience the taste of the music, soft and gentle, on your tongue. You smell the music, and before you beautiful colours and images of this music unfold. (Pause) You find yourself skiing down a long snowy slope to the music, and you feel the sound of the snow. (Pause) Imagine yourself dancing to the sounds of soft, blue velvet and smell the aroma of an ice cube. Taste a daisy and see the texture of coarse sand. You move gracefully through peach jam and tiptoe through honey. You hear a delicious cream ice cream with

chocolate and nuts, and taste the lowest note on the tuba. Feel the sound of children's laughter and hear the touch of a kitten's fur. You taste your favourite childhood treat and spend a minute of clock time equal to all the time you need smelling, tasting, hearing, moving and seeing the images of a favourite time in your life. Begin.

(After a minute) It is now time to come back to full waking consciousness. Become very aware of your body as I count from one to ten. Join me in counting aloud at the count of six, opening your eyes at ten. You will feel alert and more conscious of your senses. One … two… three…. four…."

It is obviously important to make sure that the references in the visualisation are meaningful and culturally relevant to the particular group of students you are working with.

It is important to realise that there will inevitably be students who have difficulty in letting their sensory images overlap and be represented by unfamiliar and unexpected cross sensory stimuli. It is worth explaining a little about the exercise before starting it, and pointing out that some may find it easier that others that there are no right or wrong responses and that the idea is to enjoy the experience and see what happens. As in any activity which is new to students, one should be prepared for different responses or even none at all. Activities like these should not be written off if not all students are able to conjure up responses the first time they do the activity and similar activities should be done from time to time, when the imaging may become easier.

Students can write or talk about their experiences after the visualisation, Its should be clearly explained that lack of response is in its own way a kind of response and students who found the activity difficult might instead focus on how the atmosphere was in the classroom or how they felt when the class was taking part in the activity or the effect the music had on them. Developing such cross-sensory awareness can be personally rewarding and is especially valuable when the activity is to lead into creative writing of prose or poems.

5.7. Time traveller

This is an example of how these types of exercises can be used to link or lead in to a topic that learners are going to work on in class. Thus in addition to having a relaxing and centring effect on learners it also paves the way into a particular subject, in this case, history.

"Close your eyes and find a comfortable position in your chair that you can maintain for several minutes. Follow your breath in and out of your nostrils. As you follow your breath you will notice that you are becoming very relaxed, yet alert. Now let go of any thoughts or expectations that may have and allow your imagination to float free.

Imagine now that you walk outside this room and there is a time machine in front of you. Walk around the time machine, noticing its shape and controls. You climb into the machine and set the controls for a time in history either many years past or many years into the future. When you set the controls to visit the time in history that you choose, you feel yourself being gently yet swiftly transported to the time you have chosen. As you move, light seems to move around you. When you land, you begin to explore this new land. You notice the environment, the life forms. If there are any creatures in this world, try to communicate with them and find out about their culture, their family life, what they eat, and how they live. If they have music, you will be able to bring back a song from their world. Notice their art. You may wish to find a particular person or creature and to spend some time with this being. Now you have several minutes of clock time to carry out your explorations in the world you are in now, and this is all the time you will need, because you can experience days, or weeks, or months, or even years of experience before it is time to leave here.

(After two or three minutes) It is now time for you to leave this world and to climb back into the time machine. You may wish to tell the creatures you have befriended that you will return another time. Set the dials in the time machine to the present, and return safely here to this room. When you open your eyes you will remember everything you saw and felt in detail, and you will be able to write a full report on your travels.

Join me at the count of six as I count to ten, and when you open your eyes you will be alert and have full recollection. One… two…three…"

5.8. Cultural anthropology

This is another example of how a visualisation exercise can have cross-links with many other subject areas. While this exercise seems to have obvious links with geography and social studies, it could easily be adapted to foreign language classrooms. While used in this context it provides listening skills work combined with imagination and imagery as a follow up. It can be adapted to suit different

ages and different levels. The visualisation can be done in the target language, teachers may also consider for low levels leading the exercise in the mother tongue, the follow up could come from drawing which provides the starting point for creative work and vocabulary enrichment.

"Close your eyes and begin to focus your attention on your breath. Give yourself the suggestion that with each exhalation your body becomes more and more relaxed. …. Imagine that your body is becoming circular, that you are taking the form of a ball, a sphere, or a globe, you will notice next that this sphere, is moving and in fact you are you are now hurtling at a very great speed across vast reaches of space, travelling on and on, until you find that yourself gradually slowing down, and coming to a stop. Your body is resuming its normal shape and you look around to discover where you have arrived. It is a strange land, a new world that you are in , and it is very interesting for you to explore. Investigate this world, its life forms, its environment, If there are people, in this land, communicate with them, and find out all you can, about there culture, family life, what they eat, and how they live- If they have music, you will be able to bring back a song from their world. Notice their art, you now have several minutes of clock time equal to all the time you need to carry out your exploration of this land. This is all the time you need, because you can experience days or weeks or months, or even years, before it is time to leave this land. . Begin…

Now it is time to come back, you can take one last look around, noticing again the colours, shapes, sounds, smells, and tastes, You then find yourself moving quickly again through time and space in the form of a ball, and gently land here with your body resuming its normal shape. ….

In a moment, I will count to ten,. Join me at the count of six, opening your eyes at ten, feeling relaxed and alert, and ready to draw or write about your experiences in another culture. …

The three visualisations above are adapted from Murdock (1987).

APPENDIX 6

A TEACHER'S EXPERIENCE WITH A GUIDED VISUALISATION

The following is an account of one teacher's direct experience using a guided visualisation with secondary school pupils in Britain. First some background information is given by the teacher to set the context. Then follow the approximate words the teacher used when guiding the pupils in the visualisation exercise. In the final section the teacher reflects on the process.

What's in the hand? : A guided visualisation

1. Introduction

Guided visualisations were a new concept to me and having only been recently introduced to them I was cautious about the validity of the exercise. I decided to try the idea of guided visualisations on a Year 8 class the children were aged twelve to thirteen and there were sixteen children in the group. The area in which the school is located is an area of high unemployment and social deprivation in the North East of England. The subject was Art and the specific objective of this particular session was to enable the children to become more spatially aware. To imagine a space by exploring it with their minds and to be aware of the use of colours, to focus their attention especially on 'hot' and 'cold', in respect to their own room at home. In order to focus their minds I wanted them to search for a missing or forgotten item, which they would then "bring back" with them to the classroom and reveal at the end of the guided visualisation.

Previously I had read some information, discussed the practice and use of guided visualisations and decided that involving a lower ability group in a secondary school could be beneficial. The lesson was an art class, and the group's talent was of mixed ability. I frequently found it frustrating that they appeared to be confused by

the idea of using their own imagination as a way of developing their creativity[7]. I wanted to create an atmosphere where they would feel relaxed, safe and open within the restraints of the classroom environment.

I set the scene and explained to the children that I would be taking them on a journey, that they wouldn't have to move from their seats, but they would need to shut their eyes, relax and listen to my voice, following in their mind my instructions. I explained that I wanted them to feel safe and that they weren't to feel awkward, silly or uncomfortable.

Each child sat on their seat with their backs straight and their hands resting palms up on their desk. I started talking slowly keeping my voice light and relaxed, almost like a storyteller. The following is a rough transcript of the journey I introduced the children to.

2. The visualisation activity

"You are waiting outside your bedroom door, your hand rests lightly on the door handle, you are relaxed and breathing slowly. The door opens as you push it. You look around the room from the doorway. You step over the threshold and stand in the centre of the room. You feel very relaxed, very calm and very comfortable. Still standing in the middle of the room, you turn around very slowly, looking around at the furniture you are so familiar with. Your bed, your wardrobe, drawers, rugs, things on the wall. In the back of your mind you begin to realise that you are looking for something, something you haven't seen for a long time, you know that this 'thing' is in the room, but you don't know where it is hidden.

You move over to the nearest piece of furniture, feeling you way around. You touch the surfaces, feeling the textures, running your hands over the furniture, you begin to feel underneath clothes, amongst books and other things in the room. Using your hands instead of your eyes, you try to find the 'thing ' you have lost. Try to sense its presence.

You stop at a place in the room, you feel warmer and your hands begin to tingle. You feel the tips of your fingers becoming hotter, and this warmth starts to spread

[7] We asked the teacher to elucidate what she meant by this comment. She described how the pupils did not think that they had any imagination, how they had never connected creativity and imagination together in their minds and the fact that they did not think of themselves as being or being able to be creative.

up into your hand. Your palms might feel a little damp. The heat moves into your arms, you can feel it flowing through your body and into your legs and feet. You are very comfortable, relaxed and calm. The heat is comfortable, you reach your hands out in front of you and you find the thing you were looking for. You put your hand out and pick up the thing up and hold it in the palm of your hand. You move back into the centre of your room. You are breathing steadily and calmly, you move towards the door, walk outside the room and close the door behind you. You are very relaxed, calm and feeling very safe... Now open the palm of your hand and slowly open your eyes…"

3. The teacher's reflections

The immediate responses when the children unclenched their fists and opened their eyes was very interesting. Many children jumped when they looked at their hands, some were very relaxed and calm. Some were flushed and excited and quite surprised by their own reactions.

Observing the children throughout this session, I noted that many made small movements, their feet sometimes moving, eyelids fluttering, hands clenching and unclenching. This particular group often has problems concentrating for prolonged periods, they can be easily distracted, and often have difficulty staying on task. However, during this session, which lasted approximately 10 minutes, not including feedback and discussion) they were all very contemplative, quiet and collected.

The feedback session allowed each pupil to voice the feelings and emotions that they experienced during the guided visualisation. We discussed the 'thing' that they discovered, which varied from car badges, to lockets and long lost cuddly toys. The children discussed the change in temperature that they experienced and how they felt warmer in the area where they discovered the 'lost' item. Each child seemed to enjoy the experience and it provided a good background for further work based on their bedrooms, warm and cool colours and some relief work. More especially the children seemed more able than normal to work on their own initiative whilst painting and creating a relief image base on the colour and temperature changes. They all seemed to be less dependent on the teacher and more focused than in previous lessons.

Given the positive outcomes of this venture into using guided visualisations with these pupils I intend to explore further the possibilities of using these types of activities in the future to work on other areas of the art syllabus. Also, bearing in

mind the apparent benefits that this type of activity brought to their general demeanour, concentration and application to the task I certainly feel it would be worth trying to find more opportunities to do these kind of activities.

C.A.Wilson. B.A (Hons) PGCE.

Secondary Teacher of Art and Geography. UK

3rd. April 2001

APPENDIX 7

DOUBLE INDUCTIONS

Double inductions are a variation of guided visualisations. One difference is that two different voices instead of one deliver the words which guide the listeners' imagery. In the delivery of the texts, which are complementary, but not the same, the voices are heard sometimes simultaneously, overlapping and merging together. The result of this is that the mind cannot consciously deal with the input of both voices at the same time. The left brain which tries to impose order and logicality on in coming material has to give up and right brain processes naturally take over. A diffused type of consciousness emerges which is more global, less defined and which has more in common with preconscious processes than the sharp focus of analytical attention. This of course is the objective of such exercises. The result is that the non conscious mind selects the meanings which are of the greatest value to the listener. Characteristics of the content of most of guided visualisations and inductions are the use of personal imagery, the engendering of positive, empowering attitudes, drawing on the resources that each person possesses and the frequent use of metaphor as a means of appealing to the non conscious mind. Both of the examples that we include here work through the metaphors of nature, plants and growth. At the same time they work through all the senses making reference to visual, auditory and kinaesthetic modes to both heighten the experience and to draw on the stored memory associations of all participants.

DOUBLE INDUCTION 1

Guided fantasy: a journey

Make sure you are sitting comfortably with both feet flat on the floor: Take a deep breath in and out and let it go. And relax.

We're going on a journey, so close your eyes, and step confidently onto the path which leads to the forest. You know you're safe and you're ready for all the new things you'll meet along the way. As you walk, feel the ground beneath your feet and the refreshing and cool breeze on your face. Really appreciate everything you can see and hear and feel around you. Appreciate your journey every step of the way. You can hear the rustle of the wind in the leaves, and the sound of birds singing as they fly high in the sky. And from somewhere the sound of running water.

Look around you and see the trees, there's one here close by. You can see it clearly, standing tall and strong and it reminds you of something. Something from your past. A time when you felt strong. And you feel that strength again.

And there are more trees growing all around. Many different varieties. Different shapes different colours. Tall and short. Old trees that have been there a very long time and some new saplings beginning to shoot. Some you know the names of.

Relax

Just relax. A long journey. Always remembering that the longest journey begins with a single step. The ground is there to support you. To give you support. The breeze is there to refresh you and lighten your load.

As you walk be aware of all the things that you can see and hear and feel. And those birds watching them fly and knowing that you can fly too. You can fly.

And the trees are all there around you, rooted to the ground, throwing their roots down and using them to take from the earth goodness and moisture and nutrients and taking all those things up and through the trunk, and up, and through the branches and out to the green leaves, allowing them to grow full and rich and green and lush.

Many you recognise. And some are totally new to you.

And there are openings between the trees. Opportunities for you to see through and beyond. In one of the openings you glimpse something moving. You wonder what it is. You're positive it's something exciting and intriguing. You move towards it. You have to push your way through some bushes. It isn't quite so easy to walk here, but you're inspired by the desire to find out what it was that you saw. There's a final tangle of undergrowth which blocks your view entirely. And you feel a moment of doubt. You look back and you can see as you saw before the tall strong tree, your tree. And you feel again your own strength returning and you decide to go ahead. And as soon as you make the decision, you move ahead confidently and it's actually quite easy to get through the undergrowth and suddenly you're through and you find yourself in a clearing with the sun breaking through. You look around and you see movement again., just beyond the trees, at the edge of the clearing. And as you move towards the new opening, you see something glinting in the sun. You look more closely and bend down and pick up – a key.

You examine the key and turn it around in your hand. You may wonder what the key will open. Whatever the case you know it's a key for you. And you realise that

Open. Be open, be open to learning. Be curious. Ask questions, questions, questions, questions. And know that you can walk. That you can know. That deep within you, like the trunk of a tree, are all the resources you need to do all the things that you want to do.

And you know that you can be strong. Just decide, knowing that whatever you decide will be right for you. Because you know, you do know that your non-conscious mind looks after you in the way that it has always done and the way that it always will do.

Something shining. Something sparkling. Something …interesting. A key for you. A key to open something. A key to something that you can open, and find out its secrets. The answer perhaps to a question, a question that you're asking.

You move towards it. You have to push your way through some bushes. It isn't quite so easy to walk here, but you're inspired by the desire to find out what it was that you saw. There's a final tangle of undergrowth which blocks your view entirely. And you feel a moment of doubt. You look back and you can see as you saw before the tall strong tree, your tree. And you feel again your own strength returning and you decide to go ahead. And as soon as you make the decision, you move confidently ahead and its actually quite easy to get through the undergrowth and suddenly you're through and you find yourself in a clearing with the sun breaking through, You look around and you see movement again, just beyond the trees, at the edge of the clearing. And as you move towards the new opening , you see something glinting in the sun, you look more closely and bend down and pick up – a key.You examine the key and turn it round in your hand. You many wonder what the key will open. Whatever the case you know it's a key for you.

And you know that you can be strong. Just decide , knowing that whatever you decide will be right for you.. Because you know ,you do know that your non conscious mind looks after you in the way that it has always done and the way that it always will do.

Something shining . something sparkling, something … interesting. A key for you . a key to something that you can open , and find out its secrets. The answer perhaps to a question, a question that you are asking.

And you realise that this is something special, very special, something precious, something magic.

Looking around you again you see a path leading out of the clearing which will take you back home. You know the way to come back to this place again. So feeling refreshed and relaxed , take the path which brings you home , and when you are ready , , put your hands over your face and gently open your eyes.

Taken from Revell & Norman 1997

7. 2 DOUBLE INDUCTION

This double induction, compared to the first example we have given is shorter, uses shorter sentences and less rich and dense vocabulary. In addition it will be noted that the parallel inputs are presented in two languages. The rationale behind this is that while the first induction can be done with learners who have an intermediate level and above, and indeed with native speakers of English, this version was designed for Spanish groups of learners with very low levels of English. We have used this double induction successfully on several occasions with groups of learners, mostly complete beginners and a few false beginners in the last session of short, intensive 40-hour courses of one week's duration[8]. Learners have always commented positively about this activity, surprised at their ability to understand and especially at the amount of English words which were left in their minds after they had returned to the normal classroom state. They unfailingly remark on the state of relaxation that the exercise brings about and the positive feelings engendered. It has to be said that this is a powerful technique, the effect of deep relaxation and being in an interior world remaining with learners for sometime after the activity has finished.

Double induction 1 is recorded on tape, the two voices overlapping and intermingling. We have always carried out Double induction 2 'live', in a room with the lights dimmed and to the accompaniment of gentle non intrusive music. The two 'voices' move quietly around the room while delivering their words so that there is the added dimension of voices shifting and flowing and naturally growing louder or softer. The same principal applies as in the first example we have given, in that the mind of the listener unable to follow both voices gives up highly focused listening and allows right brain processing modes to act unconsciously selecting words and meanings relevant for them.

While we have not had the opportunity to follow up these activities in later courses nor to see what, if any, effects have remained with the learners later in their studies, this might provide some interesting and useful feedback as to the possible benefits of these types of activities. These types of activity work on both conscious and non-conscious levels and help to free up preconceived ideas about one's capabilities. Positive attitudes to learning and personal achievement is the theme of this induction conveyed through the metaphor of a garden.

A Spanish teacher of English who attended a session where double induction 2 was used contributed this personal and poetic reflection on the activity.

---

[8] Cursos de Inglés Basico: Dec 1999, Dec 2000, Jan 2001organised by Jaén Province County Council .

Words and music colliding within my head, penetrating my brain but not violently, but as a sweet and sensual melody. Like the soft sound of the waves in the sea, like the sound of a venomless snake. Light in darkness. The meaning of the unconscious. Quietness, relaxation, peace...then it fades away and light appears.

Double Induction 2 developed by H. Brewer and E. Adams

Relax and listen to my voice

Tomas conciencia de tu respiración - rítmica and relax

And understand
en entiendes percibes
La claridad de la habitación

Te haces más consciente del
Ritmo de tu respiración

Las palabras son claras

Relajes los músculos

Siente curiosidadVisit a park - or -
A big garden

Simplemente sé espectador de tu propio interior
Oye

Te haces más consciente en tu interior de lo que ves
De lo que escuchas

De lo que sientes

Y mientras procedes a este encuentro contigo mismo

Te dispones a enriquecer tus aprendizaje
Con nuevas experiencias

Te encuentras sentando tranquilamente

Tranquila

And listen

You are here in the room

You are breathing deeply
The words are clear

You are intelligent and curious
Relax

You have time

Y es un jardín enorme

I know
I see the beautiful garden

I hear it
I see it
I feel it-

Yourself

You see yourself
You feel yourself

Sólo dejas que tus potencialidades

Your possibilities
Se vayan desarrollando

You go on
You are in the garden It is beautiful
y al agua fluye

Los sonidos del exterior forman parte de tu entorno

Ahora, simplemente, pide a tu mente subconsciente

The sights are here
Understand
Entiende
El recuerdo de una imagen
Que simbolice todo que ahora estás experimentando

De manera que, espontáneamente

Se formen en tu interior

In you mind
In your interior

O tal vez una sensación
You can understand
Algo intuitivo
To help you

In the beautiful garden
With flowers

There are trees

There are flowers

You are here
You can see

Da gracias a tu subconsciente

When you want to
Your experience
Tu mente se vaya activando

Y los pájaros construyen nidos
Y simplemente saben hacerlo.

The sounds are here
You are here
The feelings are here

Remember

Puedes hacerlo

Puedes apréndelo
Puedes conseguirlo y te gusta

The experience
I can help you

You can do it

Un símbolo
Una imagen
Something

Que te facilitará

Cuando lo deseas al regreso a tu lugar interno

And flowers and water and trees

It is YOUR garden
Y Tu experiencia y Tu mente que esta abrazando aprendiendo disfrutando
El jardín con las flores que tu has plantado allí hace mucho tiempo

Thank you

De esta manera, tomándole tu tiempo

Take your time

volviendo aquí y ahora

Cuando te parezca bien

Abres tus ojos.

Y cuando tú decidas recogiendo Tus propias experiencias - de la manera más conveniente para ti

Al ritmo que tú desees

You are here in the room and Y
ou can open your eyes.

APPENDIX 8

RELAXING AND CENTRING EXERCISES AND USE OF VOICE

Many of the activities we have suggested which help to facilitate learning and encourage creativity and creative language outcomes in the classroom require that students be in a relaxed yet attentive state. Yet this should not necessary be a state reserved for special occasions. We learn best when we are not feeling stressed and under pressure, so the short activities that we suggest in this appendix can and should be used as a regular part of classroom practice when we want to facilitate and make the learning process more pleasant and efficient. We will therefore mention two broad categories of use for these type of activities.

- Before a guided visualisation or similar type of activity which requires students to go inside their minds it is important that students are in a relaxed state before starting the activity. In such a state they will find it easier to enter into the activity and easier to respond and access personal imagery. The richer this experience is, the more valuable any follow up activity will be. When some kind of creative work is planned it will benefit considerably from the earlier preparation.

- Short activities which relax and centre students can also be highly valuable at different stages in a lesson when the teacher notices flagging attention, glazed expressions and other signs of wandering interest. When students have been involved in one type of activity for a considerable amount of time, energy levels can be recharged by the use of simple physical exercises. They can also be used to relax and centre students after times of sustained concentration. As a preparation to a completely different activity or at the beginning of a lesson following on from some other subject or focus of attention these types of activities these activities are useful. If we are concerned with tapping into the imagination and creativity of students they are invaluable

We suggest here a few activities out of a wide range of possibilities [9] which can be used to help learners relax their bodies, which in turn tends to calm their minds. Such activities are useful for clearing minds and bodies of tension, for making a break from what has been happening before in a different subject, at work, at home and so on. As a result of relaxing, learners' batteries will be recharged and they will be much more ready to participate in the following activities in the classroom. Centring, calming or focusing are neutral and terms that are readily understood by learners**.** Centring must be experienced to be understood. Students sometimes describe this state as feeling balanced, feeling right inside, feeling peaceful. Learners in this state are indeed much more focused on the task in hand.

Use of voice

The use of voice is an important factor which has a great influence on learners but is rarely paid much attention. When giving instructions or leading into these activities a conversational, peaceful tone of voice is best, which is not unusually slow or affected. If we consider that what we are doing is simply giving students permission to do what they normally do everyday this can make us more aware of the naturalness of the process and how different it is from activities more normally associated with teaching like passing on facts and information. Being aware of this might help the teacher to relax into the process and thus be even more effective. If teachers make an effort to relax too then can then become more aware of their use of voice and the patterns they use.

In techniques like guided visualisations and guided inductions the teacher's voice is a crucial element in creating the right atmosphere.

During the activity the voice should be modulated so that although students can hear you clearly and be guided by your voice it should not intrude too much on their inner processes. Lower the tone of the voice and without exaggerating too much, try for a slightly hypnotic, soothing tone. Speak slowly and clearly. The teacher's voice should allow students to respond in their own minds in their own way, it should not impose, but guide. Frequent short pauses give people time to respond silently and conjure up their own images. At the end of an activity when you have used your voice in this way, leave a short period of silence for people to 'come back' to the classroom before using your normal speaking voice again.

Relaxation techniques

1. Simple relaxation technique

Sitting on their chairs with backs straight heads comfortably resting on the tops of spines, shoulders relaxed. Get students to lift and circle their shoulders a few times, a lot of tension sitting at desks is located in the shoulders and neck. Legs should be relaxed with both feet flat on the floor, hands resting on laps. Tell students to take a few deep breaths. Get them to breathe in deeply and to exhale slowly and on every exhalation to let the tension flow out of their bodies. With those unused to doing this in class surrounded by other people, at first they may feel a little self-conscious. Once they've tried it and noticed the benefits they usually settle down quickly.

2. Relaxation technique with abdominal breathing

Although just breathing in and out deeply is relatively effective for relaxation. Most people breathe in a very shallow way allowing only a minimum amount of oxygen to enter the lungs and be absorbed by the blood. Abdominal breathing is much more effective because it fills the lower lungs with air so that the diaphragm is lowered which forces the abdomen out slightly. Once students are seated as in 1) above tell them to place the tips of their fingers together lightly on the stomach. As they breathe, and fill the lower lungs with air, the fingers will be slightly separated by the lowering of the diaphragm and the expansion of the abdomen. Get them to try it a few times to get the feel of it. They can then combine abdominal breathing in the relaxation technique.

3. Concentrating thoughts and focusing the mind

Get students to take four deep abdominal breaths and with each one, focus attention on the air entering the nostrils and moving down through the lungs and as they breathe out too. Not only will they be benefiting from more oxygen in their bodies but it also has the effect of concentrating thoughts and stopping the mind wandering. The teacher can ask them how they feel after doing this. Do you they feel calmer? More relaxed, more alert?

4. Simple stretching exercises

Nothing complicated is required here. When the teacher is aware that concentration is flagging, students can stand up and spend a few minutes stretching arms out and

above their heads, circling or shrugging shoulders a few times and then standing relaxed with arms hanging loose at their sides for a few seconds before sitting down again. Such a simple exercise has disproportionately beneficial results, it breaks the previous mood, relaxes the body and refreshes the mind. It usually make people smile too, which is pleasant and tension releasing.

5. The open hand

Tell students to make a fist of their right hand and concentrate on it. As they breathe in, open the hand slowly, as they breathe out, close the hand. The breathing and the body movement should coincide. The exercise can be repeated three times. Then, after a pause do the same exercise with the left hand. This is a quick and easy technique which helps develop inner concentration. It also has a relaxing effect.

6. The rainbow

Ask students to close their eyes and imagine that they are looking at the colours of the rainbow, one after the other – red, orange, yellow, green, blue, indigo, violet- then after a moment, ask them to open their eyes. They can continue this by imagining the colours again but in reverse order, with the eyes still closed. This can have an energising effect, the effect of course varies from one person to another. Each person will probably find a particular colour they prefer to have in mind at the end of the exercise

7. Cook's Hook Up

This activity relaxes, centres and helps balance both sides of the body and brain by physically co-ordinating both sides of the body. It can be done sitting or standing. It involves first standing with the feet slightly apart, body and neck and head relaxed, then crossing one foot over the other, both feet flat on the floor. The arms are extended back to back in front of the body and then, by passing one hand over the other linking the fingers together. If the right hand is on top the left, the right foot should be crossed over the left. Maintaining a relaxed stance stay in the pose a few seconds breathing deeply and slowly. Come out of the position slowly and then repeat the position with the opposite arm on top and the opposing foot crossed over. Come out of the position, and breathe deeply a few times.

The first time students, unaccustomed to this activity, are exposed to it they may find it a little curious, but in every situation we have ever used this activity in and with whatever age group it is always popular. To the extent that if it seems to have been forgotten students will remind the teacher.

This activity comes in different variations. Similar activities designed to relax, centre and co-ordinate both sides of the brain and body, are to be found in Dennison & Dennison's Brain Gym

8. Getting everything together.

This technique could be used at the end of a class. Get students to sit in a relaxed position, become aware of their contact with the chair and the floor and concentrate on the rhythm and movement of their breathing. Then ask them to open their minds and thoughts to any words and sentences from the lesson that come into their minds. This technique is a good way to help the process of assimilation of new language.

9. Relaxation and consolidation.

At the end of a lesson or input session of any kind, gentle music can be played and the main points of the lesson are read, not in detail but just key words with pauses in between. The body is passive and relaxed but the mind is taking in information and reactivating material that was presented in the session. Students need to know that they can relax listen to the music and let the information gently echo in their minds. This is a very pleasant way to end a lesson. The tendency is to keep talking and teaching right up to the last available minute, but planning to end a few minutes before can be a more fruitful way of using the last minutes of a lesson and helps in the process of consolidating new material and shifting it into the long term memory. Fletcher (2000) suggests combining this with a simple visualisation where positive sensory experiences are linked to the visualised scene.

10. The old and the new

This is a useful and fun activity at the end of a session. Simple, yet it works on many levels. Get students to stand up with enough space so as to be able to stretch their arms out to their sides with their hands palm upwards. Ask students to imagine

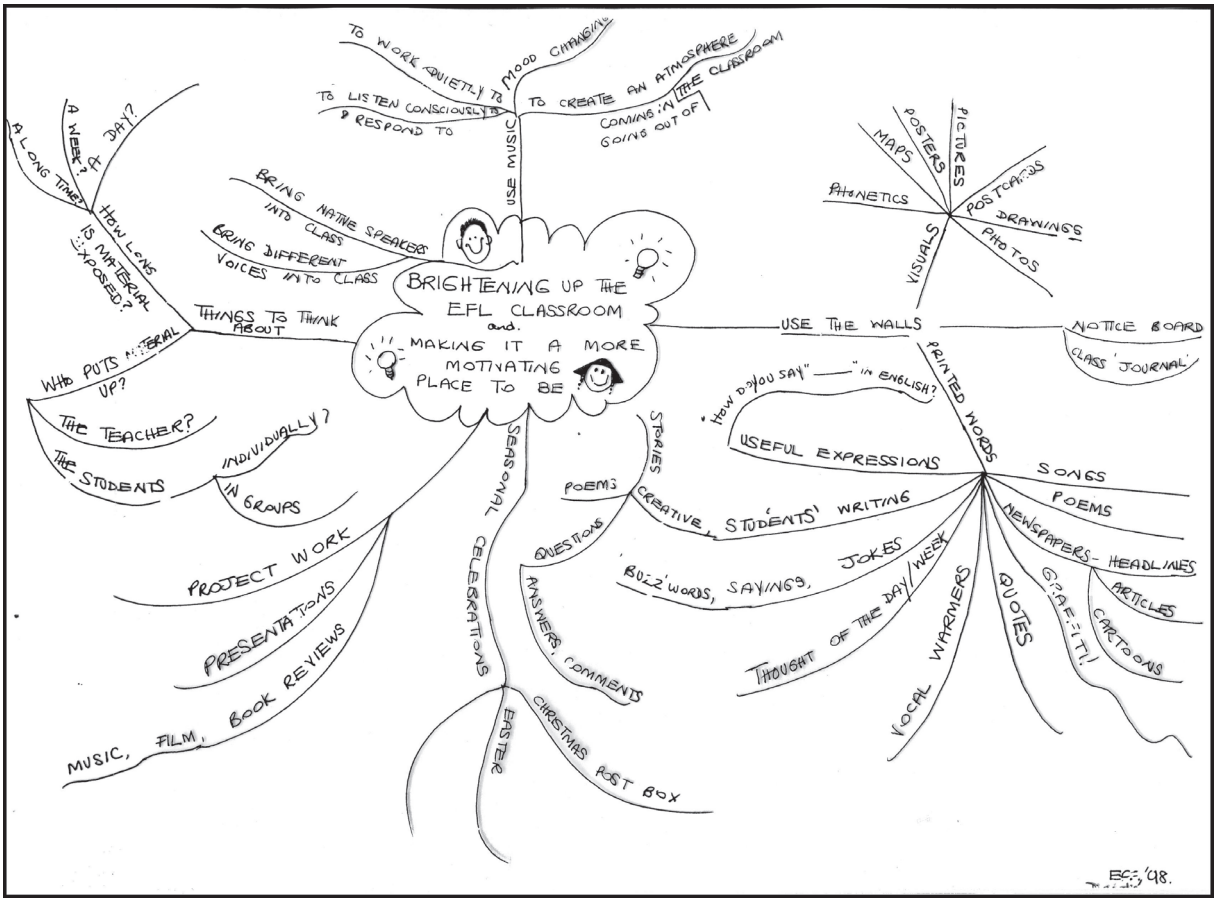
in their left hands the knowledge they brought with them to the classroom. Get them to try to experience the weight of all that knowledge, sitting heavy in their hand. Then ask them to think back over what they have learnt in the session, or the course and put that in their right hand. Let them feel how it weighs in their hand. Tell them that when you say "ready" they are to bring their two hands together in a clap saying aloud the positive word "Yes!" This brief activity re- energises physically and mentally. It is also particularly good as we have found from our own experience working with adult learners of English. When the foreign language seems to be alien and difficult, uniting it with all the previous experience that the learners bring with them, helps to build the idea that this new language can also be a part of them and their identity. We have been amused to see how adult learners doing this activity at the beginning of course took delight in standing with the left hand weighed heavily down, and the right hovering high in the air. As the course progressed however the right arm gradually came lower and lower.

Activities of this kind are to be found in various sources. Sometimes we may use activities and not be aware of their original source, yet they have become part of our repertoire. Any one interested in relaxation and practices which incorporate relaxation, like yoga, will find in them a rich source of inspiration, and with a little imagination and modification can be suitable for use in classrooms. Any teacher interested in these activities and aware of the positive responses of students will find that new variations of the activities tend to evolve in the classroom if as creative teachers they remain flexible and open to what is happening. Sources of activities of this kind are to be found in Dennison & Dennison 1996, Dufeu 1994, Fletcher 2000, Gordon 1995, Jensen 1995, Lawlor 1988

APPENDIX 9

"BRIGHTENING UP THE CLASSROOM" MINDMAP.

We have used the following and similar mindmaps on preservice teacher training courses as a way of raising awareness about the importance of the learning environment in creating a motivating atmosphere for learners of languages. From this starting point students were encouraged to contribute their own ideas gleaned from various sources from both within and outside of educational establishments and to devise their own mindmaps.



E.A.Adams'98

APPENDIX 10

CREATING A BRAIN FRIENDLY CLASSROOM ENVIRONMENT: A CHECKLIST FOR TEACHERS

This is a checklist for teachers which takes into account a recognition of the holistic aspects of teaching. It reflects a shift from the traditional classroom set up where little attention is paid to the learner and optimal learning processes and where all focus is on the subject to be taught. Taking these points into consideration is likely to create learning environments where students are more likely to achieve, to be confident and to be in positive flow states of mind for at least some of the class time. In such environments everyone, both teacher and students are likely to feel more comfortable. There will be more positive interaction between teacher and students and between the students themselves, (one section of the checklist is centred around the issue of feedback) thus setting up the ideal conditions for the type of classroom 'dialogue' we have described in Section II, Part 6, where the unfolding quality of teaching is recognised, and which can lead to creative teaching and learning.

Apart from the emphasis put on the physical conditions of the classroom, point 3 deals with what Gordon[9] calls the story line or script. These are in effect exercises closely related to the guided visualisations we have discussed elsewhere. Gordon sees these activities as triggering different levels of consciousness (channels) and facilitating shifts between focused attention and more relaxed modes of receiving and processing input. The ability to shift between different levels of consciousness has been seen as a requisite for creativity by many writers on creativity and learning (Beaver 1998, Brande 1996, Csikszentmihalyi 1996) and is an area rarely dealt with in most educational establishments. It is therefore an area which deserves more attention in teaching and learning situations.

[9] Gordon 1995.

The checklist is for the use of teachers as a means of ascertaining the degree to they build good and 'brain friendly'[10] learning environments in their classrooms.

The checklist for creating a brain friendly environment

Physical arrangements/ conditions in the classroom

1. Comfortable temperature
2. Fresh air circulation
3. Comfortable seating, chairs, cushions, etc.
4. Lighting, natural incandescent, no fluorescent
5. Sound: quality relaxation sounds, quality equipment
6. Scents, pleasing, subdued aromas

Educator's presentation

7. Positive expectations for happy useful outcomes
8. Personal confidence to deliver excellent lessons
9. Pre delivery 30 second personal imagery session
10. Acceptance of and respect for all student responses
11. Awareness of voice/body congruent behaviour

Story line / script

12. Engage channel 1 with interesting story line
13. Speaks to channels 1, 3 & 4 for positive useful outcomes
14. Flows easily with run on sentences
15. Uses language patterns to enhance communication with all channels

[10] Recent years have seen a growing awareness of how the human brain functions in life and learning situations . This is filtering through very slowly to most educational contexts. While it seems the majority remain ignorant of these advances, many publications have translated these ideas for direct application to teaching and learning situations of all kinds. See for example Beaver 1996, Jensen 1995, Fletcher 2000. This movement has given rise to expressions like 'brain friendly environment'.

16. Seeds specific P.O.P.[11] suggestions
17. Length of story is appropriate to age group

Learner preparation

18. Aware of potential benefits with use of imagery
19. Participate voluntarily, other options available
20. Body oxygenation via physical movement
21. Brain oxygenation via several full breaths
22. Crossover hemisphere synchronisation exercises (Brain Gym[12])
23. Comfortable body position, straight spine

Feedback

24 Session for student response s and experiences
25. Acceptance of all responses, no value judgements
26. Educator open to feedback suggestions

Rating

Rate each day:

0 = not possible, 1= not used by choice, 2= little used, 3= much used

Date: Class:

Group:

Educator's comments and notes:

[11] P.O.P: Positive Outcome Programming which is a term that denotes the positive utilization of an innate body/mind patterning process

[12] Brain Gym (Dennison & Dennison 1996) is a collection of exercises for use in a variety of situations but with particular relevance for teaching and learning situations. They recognise the interconnection of brain and body in learning. In particular they emphasise the importance of the functioning of both of the hemispheres of the brain for efficient learning.

SUMMARY FOR FACILITATING OTHERS INTO EXPANDED BRAIN FUNCTION

- Body movements and oxygenation
- Comfortable body position
- Straight spine
- Touch thumb tip, index, and middle finger tips of one hand
- Decrease 5-sense focus
- Take several full diaphragmatic breaths
- Increase inner focus
- Use directed imagery
- Expect positive results

What do I say? / My script

Objective is to keep channel 1 pleasantly occupied while speaking with channel s 3 & 4. Use prepared storyline or make up your own

How do I say it? (Voice factors)

Volume: low, just loud enough so that all can hear without straining, but no louder.

Pitch: use your lowest comfortable register, which will be most conducive to helping others move into expanded states.

Tone: Use natural conversational tones, as if you were carrying on a normal conversation

Sonority: Imagine that you are speaking to a group of your best friends, Your voice will be supportive and most sonorous

Pace of delivery: slower than you would imagine to be appropriate, check this with students verify most appropriate pace.

Highlighting of key words and phrases: Find your own way to do this. You might elongate a word, place greater emphasis on it, pause momentarily before or after saying it to underscore its importance. These important words, are the seed words that are already in bold for you in some of the story lines.

How will I recognise when I am being effective as a facilitator for this work?

- Your students will note that they feel relaxed
- Tensions in the room are noticeably decreased
- Students note an increased ability to reduce incessant monkey– mind chatter
- Students note an improved flow of imagery with the ability to experience more vivid images and understand their personal meaning
- Students exhibit an increased presence
- After several weeks of using the exercises, students remind you to guide them in a relaxation and centring session if you forget to do so,
- Students pay more attention and focus more effectively on schoolwork

TIPS FOR INDIVIDUAL USE OF DIRECTED IMAGERY

1. Practice on waking and when preparing to go to sleep
2. Make sure your body is comfortable
3. Place your thumb, middle and index fingers together
4. Take several full breaths
5. Focus inward for a minute or two
6. Identify the problem or issue that you wish to announce to the brain, using the two-screen technique, announce the issue, surrounded by a dark border on the first screen. Erase the image and then announce the desired outcome, surrounded by a luminous border, on the second screen. Hold that second image, for a few seconds, until you can put strong positive feelings with it, then allow it to fade,
7. Focus on the quality of good feelings from the last image, and hold it for a minute, or so.

8. Return your focus to the aware state, or fall off to sleep
9. Anytime you think of it, image yourself, in a setting that signifies success for you

10.1. Music for brain friendly classrooms

While it is useful to have some suggestions for music for use in the classroom, those who like to use music during their lessons will build up their own collections which work well for them and their students. It is worth experimenting and asking students for their opinions about the music and its effect on them. We are not talking here about the use of songs in the language classroom, another rich area for exploitation, but music for creating pleasant atmospheres conducive to relaxed but attentive states of mind.

Baroque music is usually recommended for optimising brain states which facilitate learning and can thus be played in classrooms to facilitate concentration and create a pleasant atmosphere. Out of a wide range and endless range of possibilities the following are offered.

Albinoni	Sinfonia in G
Bach, J.S.	Choral prelude in A Major.
	Prelude and Fugue in G Minor
	Fantasy in G Major
	Fantasy in G Minor
	Trio in D Minor
	Music for flute and piano
	Air, suite in D
	Siciliano, suite in B
	Arioso, Concierto in A
	Adagio, Sonata in E
Corelli,	Concerti Grossi. Op.4, 10, 11, 12.
	Opus 6, nº 3, 8, 5, 9.
Mozart, W. A.	Sonata in F.
	Sonata in C,

Pachabel	Canon in D.
Vivaldi	Four Seasons

For guided visualisations and creating different environments in the classroom against which students may like to work quietly we have found the following to be successful, although the choice of possibilities grows all the time with a wide range of environmental music continually coming onto the market.

Chariots of Fire, Vangelis, Plydor PD-1-6335.

Crystal Clear, Ken Davies. KD MCD 10 02.

Deep Breakfast, Ray Lynch, Ray Lynch Productions, 1984.

Environment Series, Atlantic Label (Syntonic Research Series): sounds of nature- birds, seashore, countryside, rain , thunderstorms, etc.,

Europa, Chris Spheeris and Paul Voudouris. Epiphany ED 1295.

First Flute: Songs of Courtship , Ron Allen, SOL CD60

*Jabula: Joyful spirit of South Africa,*hennie Bekker. SOL CD 63.

Mystic Traveller: The Journey, Chris Spheeris. RESCD 034.

Oxygene, Jean- Michel Jarre, Polydor PD-1-6112.

Pianoscapes, Michel Jones, 28 Carey Road, Toronto, Ontario, M3H3B3.

Reflections, Alan Stivell, Fontana.

Sky of Mind, Ray Lynch, Ray Lynch Publications, 1984.

Uluru. Tony O'Connor , Steve Parrish Publishing 307205

Voyager, Mike Oldfield. Warner Music UK. 063-15896-2

Waiting for Cousteau. Jean Michel Jarre. Polydor. 843614-2

10.2. Examples of student groupwork activities on a short intensive course

A description of the conditions of one such course which attempted to incorporate brain friendly classroom conditions and the course participants has been given in

Section IV, part 6. This appendix gives examples of group work done by the participants at different stages of the course.

Activity 1.

On the second morning of the course the students were presented with the structure "what is X like? ", with X referring to a place. In the course book the place was Sydney. Possible forms for answering the question were given. As a follow up to the practise of question and answer forms, the participants who were from different town and villages in the province of Jaén, prepared rough drafts using the question and answer form to briefly describe their home town or village. They later polished up their initial drafts and the outcomes of the activity were put up on the walls of the classroom. They reveal the differing views of the participants and the slightly varying levels of ability and grasp of the structures studied. The activity also demonstrated the participants' ability to use the language they had learnt to convey personal messages after only a few hours of learning English.

Activity 2.

On the third morning of the course, participants were given tasks which involved moving out of the classroom and exploring the building. They had to collect information, return to the classroom and prepare short written presentations using language they had learnt up backed up with dictionary work and group discussion before putting their work up on the walls. When the groups had finished, students moved about the classroom, reading the presentations and asking members of the groups about points of interest, the meaning of expressions, vocabulary and so on.

Activity 1

DISCOVERING HOSPITAL SAN JUAN DE DIOS

Group A- work sheet

Task One

How many trees in the patio?

How many lifts in the building?

How many doors on the ground floor?

Task Two

In the building, find and describe simply:

- something interesting , something old, something modern ,something blue
- Note how many people you see using a mobile phone

On the ground floor there are two big palm trees and two little palm trees.
We found one lift next to the library and eight doors.
In the building we found a very beautiful chapel, it's an assembly hall now.
There are some old remains. We saw many modern lamps and modern chairs in the chapel.
On the ground floor we found something blue, first Mateo's sweater, second and very important the policewoman's eyes.

By Luis, Teresa and Juan

Group B- work sheet

Task One

How many pot plants in the patio?

How many fountains?

How many doors on the first floor?

Task Two

In the building find and describe simply:

- Something interesting, something old, something modern. something green
- *Note how many people you see smoking in the building*

There are seventeen pot plants
There's a fountain
On the first floor there are ten doors.

In the building we found an interesting library with many old maps and books. In the library is a very good archive and there's a microfilm copier
On the ground floor is a beautiful and old fountain, The fountain was in an old 19th century convent.
In the building is a very modern elevator for six people.
Everywhere in the building we found green pot plants and palm trees.
We saw three people smoking.

By Mariani, Mª Angeles, Luis and Mateo

Group C- worksheet
Task One
How many tables in the cafeteria?
How many lifts in the building?
How many doors on the second floor
Task Two
In the building find and describe simply:
- Something interesting, something old, something modern, something white
- Describe a view you see from the building

There are seven tables in the cafeteria
There is one lift in the building
There are fourteen doors on the second floor.

We found something interesting, an old fountain, two beautiful palm trees, some ashtrays, crafted in the traditional way and the most interesting thing is a wonderful view from the building to the castle.

In the building we found an old chapel and an old bell tower too.
We found a modern lightening conductor on the roof and modern double glazed windows.
There are some white sockets and the walls are white.

By Manuel, Pepa, Carmelo and Isicio

Group D- worksheet
Task One
How many ashtrays in the patio?
How many lifts in the building?
How many columns in the patio?

Task Two

In the building find and describe simply:

- Something interesting, something old, something modern, something curious
- Something interesting outside of the building

In the patio there are two ashtrays
In the building there's one lift.
In the patio there are twenty-six columns

There is a painting of the crucifixion with four faces
There's a gargoyle in the bell tower.
There is a telephone and a radiator.
There are some pomegranate bushes
The facade of the church.

By Manolo, José and Lola

APPENDIX 11

CREATIVE SPACE

In personal and corporate creativity, the importance of the space in which one works is recognised as vital. Creative space embraces the mental, physical and emotional environment within which creativity operates. Most people will recognise that there are places where they work better and are most productive. Not everyone consciously exploits this but those who do know the importance of carving out their own personal space and making it very much theirs.

Creative space is a concept that is rich in possibilities and opportunities. It is the sum total of what nurtures, supports, inspires and reinforces our creativity. It thus includes ourselves, our families, our fellow workers, our reinforcing memories, our cueing systems, and our favourite places. Examples may include: house, office, garden, spouse, children, friends, colleagues and places of recreation.

The definition of creative space can be separated into three elements (Cave[13])

1. The individual
2. The environment
3. The interface between the two

The interface has to have several characteristics and an individual setting up a creative working environment should bear in mind the following points.

a) It should provide allowing for a flow of energy and change and movement to take place.

b) It should be suitable for the current phase of the creative process - adaptable and variable with the suitable resources

[13] Cave. Electronic source< http://www.ozemail.com/~caveman>

c) It should provide for personal renewal. This is most easily and powerfully supplied by nature, the outdoors, sounds of wind and water, flowers, trees, birds, uncluttered views, and living, growing things around. It's especially important to have plenty of light and air available. Other elements to bear in mind are music, books, toys and people who are open and flexible to talk to when you need them.

d) Mutual Nurturing

e) The creative space that you carry around in your head is the most important of all. An ideal creative environment would be a physical metaphor of the whole-brain creative process and would appeal to all aspects of brain functioning, especially right brain intuitive and holistic modes. There are a few basic requirements that a fixed physical environment should have in order to serve the creative process:

   1. A way of noting down and storing ideas. Whether illumination comes in bits and pieces or all at once, it's important to collect the pieces until they begin to fall into a completed pattern. This can be as simple as a pencil and notebook, a journal, a cassette recorder or index cards. «Every composer knows the anguish and despair occasioned by forgetting ideas which one has not the time to write down» Hector Berlioz.

   2. An incubation display. It's important to have a worktable or notice board for displaying materials accumulated in the preparation process.

   3. A place to create. Work table, computer, musical instrument, tape recorder, artists materials, easel. The main requirement is enough space to accomplish the task at hand and where work can be left mid-process without having to be cleaned up.

   4. Affirmative messages can be put up for example, «Writer in residence», «My creative corner», «I claim this creative space». In addition anything that stimulates the mind; quotations, articles, pictures and awards. The setting up of a personal workspace is in itself a creative process.

Corporate creativity

Businesses too often require creative thinking from their employees. Asked to say what they need in order to perform more creatively, employees

invariably include as a priority a stimulating space devoted to creative work (Lloyd 1999) [14].

A space devoted to creativity can if properly designed and kept flexible enough to modify as needed can provide the type of stimulations its users want, which can increase motivation and communication, encourage play and collaboration. It can also make efficient use of space by allowing users to share space, tools, and other resources. Key elements in creating stimulating work environments are:

- Flexibility – so that people can continue to adapt it and put their personal yet evolving stamp on it.

- Provision for communication between people, which leads to cross fertilisation of ideas. While it is accepted that people may need or have to work individually and maybe isolated there should be opportunities for face to face communication. Cross fertilisation is one of the most powerful catalysts for discovery, ideas can be introduced from diverse sources this sets up the scenario for the surprise collision of normally unrelated ideas (Lloyd)

- A space designed as creative can lend itself to any kind of informal gathering. Informal gatherings are the principal source of new ideas in the typical office. Ideas shared freely during informal discussions allow people to advance their own theories once back in their own private space. Conference room meetings with pre arranged seating become utterly predictable, boring and less productive than they could be. By contrast in a room where people are free to get up and move around, stand up, stretch, use the walls and boards to express ideas, ideas are generated and bounced off each other sometimes colliding to give birth to a really new idea. The focal point of innovation in most organisations is where people choose to gather informally.

- Freedom to play, to dream, to create new things and let the imagination go. Michalko (1998) underlines the importance of play because of its effect of relaxing tension in a group which leads to less fixation and rigidness and therefore to more spontaneous output and underlines the similarities between creativity and play. Lloyd points to how if people working alone can generate X number of ideas, working in groups they will generate at least twice as many.

[14] Lloyd 1999. Electronic source http:// gocreate.com

- How we think. De Bono (1993) has pointed out how the brain works to make life easy by making things routine, patterns of thinking and behaving are rapidly formed and then all too easily become fixed. Creative thinking depends on breaking the patterns of automatic responses.

- Creative space should provide in addition to freedom from typical and traditional constraints, a sort of sanctuary where trial, error and failure are not only tolerated but expected in the interests of progress (Lloyd).

Creative space in the classroom

While physical space is an important element for creating optimum conditions for creativity both on a personal level and in business situations, there is rarely much chance of changing the physical conditions in most classroom situations. But physical space is not the only factor and creative space embraces the mental, emotional environment as well as the physical and these *are* conditions that can be reproduced in the classroom with a little imagination and flexibility**.** The main block to implementing these factors seems to be that classrooms especially in secondary and tertiary settings are not seen as places where creativity enters in. The teaching/ learning situation is set apart from any areas where individuals see the creative side of their personalities developing. People, including teachers and learners may carve out their personal creative space away from the educational setting and this is clearly necessary for progress in their personal interests and also in the areas related to their teaching and learning. But for creative teaching and learning to happen we also need to consider the place where attitudes to teaching and learning are shaped and formed, in the classroom. If creativity does not enter into the teaching / learning equation in the classroom it is hardly likely to become an issue for individuals in their personal work spaces out the classroom where they follow up and develop the work started in the classroom. What goes on in the classroom plants the seeds for thinking and acting creatively towards teaching and learning.

We consider the main elements of creative space which should be applied to teaching and learning situations to be as follows:

- A flow of energy, change and movement

- A concern for personal renewal

- The creative environment is a place where holistic approaches to learning mind and body) need to be adopted, and where aspects like whole brain activities and approaches are used

- A stimulating space devoted to creative work
- Provision for communication between people, which leads to cross fertilisation of ideas. Working in groups people generate at least twice as many ideas. Ideas shared freely during informal discussions allow people to advance their own theories once back in their own private space
- Freedom to play, to dream, to create new things and let the imagination go.
- A sort of sanctuary where trial, error and failure are not only tolerated but expected in the interests of progress

The physical space can be made more attractive even if only for the duration of the lesson by using wall space imaginatively, putting up temporary displays of students' work, mindmaps, posters, using music to create different atmospheres and so on. But the important aspects of the mental and emotional environments can be made more conducive to creativity in teaching and learning through an active concern with the above mentioned points. As in all systems, balance is a key factor and while there needs to be time for different types of input, for new information, and for more or less controlled activities, for creative teaching and creative responses from learners the key factors mentioned above should also form an integral part of the classroom environment.

APPENDIX 12

TECHNIQUES FOR PROMOTING CREATIVE THINKING

Many of the early ideas for promoting creative thinking are to be found at the present time in new forms and new combinations, drawing occasionally on new areas of knowledge but in essence using the same basic principles. These are focused mainly on the generation of ideas and equally important ensuring that we open up new pathways in the brain rather than always treading the set patterns of thought which the human brain so easily gets set into.

Brainstorming

The word brainstorming is frequently used in many different contexts with the aim of generating ideas. Although the concept of brainstorming was clearly defined by its originator, it is not always used in the exact way in which it was first conceived. The idea was developed by Alex Osborn in 1938 and was originally a method for improving the solving capabilities of groups of people working for an advertising company.

The process is based on two basic phases of creative processes: idea generation and idea evaluation.

Idea generation can be further subdivided in to *fact-finding*, where the problem is defined and prepared, and *idea finding*; which involves coming up with new ideas from the combination of and extrapolation from old ideas. According to Osborn, brainstorming is most useful for idea-finding. The process involves two main principles.

Principle One: Deferment of judgement.

As the concept was to be applied to groups of people generating ideas, at the idea generating stage of the process, no member of the group may criticise an idea of another. Neither may the contributor of an idea criticise his contribution

Principle two: Quantity breeds quality.

The belief was that the more ideas that are generated, the higher the probability that some of them will be original and useful

Thus a freewheeling, non-critical attitude is required in brainstorming. Amabile (1983) points out that research seems to show that brainstorming generates more ideas than other ways of generating ideas which allow judgement during idea generation, but the quality of ideas does not necessarily show an improvement. Also it seems that group brainstorming is not necessarily more effective than individual brainstorming. Sometimes individuals produce more ideas working alone. Based on this starting point, it seems that the quality and quantity of ideas produced by a group can be improved by first having people work individually generating ideas and possible solutions and then by having group members take turns offering suggestions. The idea that new ideas may be triggered by others responses seems to work.

Synectics

This approach was developed by William Gordon in 1944. It is a creativity stimulation programme the name of which, comes from the Greek word *"synectikos"* which means «bringing forth together» or «bringing different things into unified connection.» Since creativity involves the coordination of things into new structures, every creative thought or action draws on synectic thinking. Like brainstorming, synectics was intended as a group process. It has two main principles..

Principle one:

Make the strange, familiar, i.e. take a new problem and transform it into something familiar by the use of metaphor and analogy.

Principle two:

Make the familiar strange, i.e. take something commonplace and find new ways of viewing it through analogy.

Like brainstorming, synectics use judgement deferment during the idea generation stage. Synectics however uses emotion to generate ideas and there is greater

external direction of ideas. Specifically, people are instructed to use four types of analogy:

a. **Personal analogy**, in which the individual imagines himself to be the object with which he is working

b. **Direct analogy,** in which facts, knowledge, or technology from one domain are used in another.

c. **Symbolic analogy,** in which images are used to describe the problem

d. **Fantasy analogy,** in which the individual expresses his wishes for ideal though fantastic solutions to the problem

Many variations and developments of elements of synectics are to be found. The idea of using metaphor and analogy to stimulate creative thinking has long been recognised. Philosopher Ortega y Gassett claimed that «The metaphor is probably the most fertile power possessed by man.». Von Oech (1986) describes the key to metaphorical thinking as being in the comparison of unrelated concepts and in the finding of similarities between them and this is widely recognised as a fruitful way of generating creative responses. Anecdotes like the following serve to illustrate this idea.

"There once was an Indian medicine man who made hunting maps for his tribe. When game got sparse, he'd put a piece of fresh leather in the sun to dry. Then he'd say a few prayers, fold and twist it, and then smooth it out. The rawhide was now etched with lines. He marked some reference points, and a new map was created. When the hunters followed the map's newly defined trails, they usually discovered abundant game. Moral: by letting the rawhide's random folds represent trails, he pointed the hunters to places they had not looked."

We can stimulate our thinking in similar ways. One parallel is to open a dictionary or any book and pick a word at random. How does it relate to what you're doing? What associations can you make? How does it shed light on what you are currently doing. What patterns can you find? Look out the window and find the first thing that has «red» in it. Open a magazine and find the 8th full-page advertisement from the front. What is its product? How does it relate to your problem? Opening the mind up to things that have no connection with what you are currently doing can trigger ideas, insights, juxtapositions. The important thing in searching for creative solutions is in breaking the patterns of thought we have allowed to become engrained.

Techniques such as these have been used by various cultures in history and up to the present time, the idea is encapsulated in the "oracle". The ancient Greeks used the ambiguous predictions of the Delphic Oracle, the Chinese used the "I Ching", the Egyptians consulted the Tarot, the Scandinavian people used Runes and the North American Indians used Medicine Wheels. The purpose of these oracles was not so much to foretell the future but to help the user delve deeper into their own minds.

We are advised to pay attention to a wide variety of different information. Developing cross-sensory awareness as a way of sharpening perceptions or putting the problem into a sensory metaphor of a different context is one way. For example; if you're visually oriented, focus on the «sound» or the smell» of a situation. If you're analytically oriented, focus on how something feels. If you're intuitive, concentrate on the logic. What other senses can you use? What is the smell of your current situation? What are the «below the surface» sounds? What are the subtlest colours? If your problem were a food, what would it taste like? What other senses can you use to develop your idea? Von Oeck suggests seeing what associations different sensory images spark off one's mind that might be useful to the issue, or the problem in hand.

For example; The sound of fingernails scratching a blackboard…the terrified howl of a man tormented by his inner demons… the feeling of a dentist drilling in your teeth ... the taste of salt in your tea when you thought you had put in sugar… the smell of fresh paint…the smell of sweet incense…the smell of mist from a large fountain…The smell of fresh-brewed coffee…the feeling of a tennis ball hitting the heart of your racket…the feeling of the floor rolling beneath you during an earthquake ... the smell of rotten fish ... the sound of loud thunder crashing near you ... the taste of a fresh strawberry ... the feel of a keyboard ... the smell of gasoline ... feeling of diving into a swimming pool on a hot day ...the sound of an air raid siren going off ... the smell of burning leaves ...the feeling of the warm sun through a glass window on a cold winter's day ... the taste and sound of biting into a crunchy apple ...the feeling of melancholy ... the sound and feeling of a very large crowd cheering at an athletic event.

The use of analogy can illuminate new ways of seeing. We can pose questions like "What do a cat and a refrigerator have in common? They both have a place to put fish; they both have tails; they purr; they come in a variety of colours; and, they both have a lifetime of about fifteen years. What metaphor can you make for your issue? We have looked at the idea of using metaphor in thinking about teaching and learning in our study. Von Oeck suggests considering what similarities your idea or

situation has with apparently unconnected areas like for example, cooking a meal? Building a house? Raising a child? How can these help you understand your idea? How is your issue similar to teaching a child how to read? Fighting poverty? Selling a product? Suing an adversary? Making love? Going to confession? Running for political office? Disciplining an adolescent? Running a marathon? Starting a revolution? Prospecting for gold? Putting out a fire? Fighting a disease? Sailing a ship in rough seas? Doing stand up comedy? Going on a diet? Performing a magic trick? Colonising a territory? Building a house? Spreading propaganda? Going fishing? Having a baby? Getting a divorce? Arranging flowers? Pruning a tree? Conducting an orchestra? Learning a new language? Talking to God? Cultivating a garden? Celebrating a great victory

As always the importance of keeping an open and curious mind to aid creative thinking[15] is emphasised.

Creative problem solving

This was an eclectic training programme developed by Parnes (1967). The programme is comprised of both individual and group techniques, including brainstorming and the use of checklists for generating new ideas from old ones. Over several sessions, participants in the programme are taught to follow five stages of problem solving:

- 'Fact finding', or the gathering of information about a problem,
- 'Problem finding', or the clear formulation of a specific problem to be solved
- 'Idea finding', or the generation of possible solutions
- 'Solution finding', or the evaluation of the generated solutions
- 'Acceptance finding', or the selling of the final solution to others.

In generating ideas, participants are taught to use a checklist of verbs for building upon previous suggestions. For example; put to other uses, adapt, modify, magnify, minimise, substitute, rearrange, reverse, and combine. In addition such techniques

[15] Von Oech uses the example of Leonardo da Vinci to emphasis the point «I roamed the countryside searching for answers to things I did not understand. Why shells exist on the tops of mountains along with imprints of plants usually found in the sea. Why thunder lasts longer than that which causes it. How circles of water form around the spot which has been struck by a stone. And how a bird suspends itself in the air. Questions like these engaged my thoughts throughout my life.» Von Oech asks his readers, " What are you curious about? What are two reasons why you are interested in your current issue?"

use forced relationships, that is ideas that combine two or three disparate notions. According to Amabile (1983), the method is relatively successful, but evaluation studies of Creative Problem Solving are limited to informal demonstrations that trained individuals do indeed use deferment of judgement and do at times, produce more and better ideas than untrained individuals.

Variations of this programme abound. One specific application that applies some of the principles of synectics is the " SCAMPER" model devised by Michalko (1994), and which follows Osborn's concept of applied imagination. This is a set of questioning strategies. Applied to teaching and learning, students can be taught to ask how to change an existing product, item or idea by asking how to **S**ubstitute, **C**ombine, **A**dd, **M**odify/ **M**agnify/ **M**inimise, **P**ut to other uses, **E**liminate, and **R**everse. (Eberle, 1972). "SCAMPER" tools are used on answers that we already have to questions, when we need a detour in our thinking to see something in a new way. It requires the suspension of judgement and a playful attitude. Many of the ideas will not lead anywhere, but they may add up to be more than the sum of their parts. One such application is offered below.To use SCAMPER tools, take the answer to a question such as, «Thoreau wrote Walden» and ask the questions:

S «Who else could have written it?'

C «If Thoreau had had a co-author, who could it have been?»

A «What would Thoreau have written in the 21st century?»

M «What could we modify in the work to intensify the theme?»

P «How does this work apply to the lives of suburbanites?'

E «What would be the effect of eliminating this work?»

R «What would be the antithesis of Thoreau's view?»

One of the benefits of using the SCAMPER tools with students is that they both ask and answer the questions. The questions, though often very divergent, require a thorough going knowledge of the required content. Evaluation of student thinking and competency in the subject matter are accomplished through an analysis of the coherence of the question asked, answer given, and next questions posed. As such it provides a useful dual tool in language classrooms both for the language it can generate and for the creative responses it encourages. Another useful and generative function of this model is in teacher training courses where trainees are encouraged

to consider different options in the classroom and especially in the area of lesson planning where they are encouraged to reflect on how to vary the options open to them and to consider the possible effects of such options.

Divergent and Creative Thinking

De Bono is one name associated with the encouragement of creative thinking or "lateral thinking". Lateral thinking is about moving sideways when working on a problem, trying different perceptions, different concepts and different points of entry. The term covers a variety of methods including provocations to get us out of the usual line of thought. Lateral thinking cuts across patterns in a self-organising system, and has very much to do with perception. Expressed in colloquial terms it is "thinking out of the box", or in the breaking down of the confines and limits that we tend to impose in our habitual thinking patterns. Once again the ability to extend beyond the obvious and the timeworn is an essential ingredient. Unusual and imaginative solutions are seen as coming from the association of ideas, the skill of synthesis, the rearranging, modifying and combination of elements seemingly disparate ideas. Edward de Bono has not limited his objectives but works with school children, senior executives in major corporations and with governments. His ideas are based on an understanding of the mind as a self-organising information system. He has coined the acronym "PO" which stands for provocative operation as representing a key strategy in creative thinking (1994)

Mindmapping

The concept of mindmapping, which we have discussed at some length in section III, draws on the associative powers of the brain. It also emphasises the necessity for the free wheeling type of thought of other approaches to creative thinking. The form itself of mindmapping encourages the generation of ideas in non-linear and non-judgmental ways in the early stages. In addition it combines a visual approach where, images, shapes, and colours can be combined to result in highly visual and personal representations which also facilitate the perception of interconnections and links which may not be recognised in more linear ways of thinking. In the area of mindmapping names like Buzan& Mukerjea 1998, Wycoff 1991, and Margulies 1990 have been and continue to be influential.

Other programmes and ways of developing creative thinking.

Cave[16] offers a rich compendium of creative thinking techniques. These collect together the work of influential authors in the area of practical applications to creative thinking and problem solving, most of which are themselves the creative application of creative thinking techniques and which have derived in various ways from the earlier creativity generating techniques like brainstorming and synectics. The collection includes:

- Random Input
- Problem Reversal
- Ask Questions
- Applied Imagination - Question Summary
- Lateral Thinking
- Six Thinking Hats
- The Discontinuity Principle
- Checklists
- Brainstorming
- Forced Relationships/Analogy
- Attribute Listing
- Morphological Analysis
- Imitation
- Mindmapping
- Storyboarding
- Synectics
- Metaphorical thinking
- Lotus Blossom Technique
- In the realm of the senses
- Use of drawing
- IdeaToons

[16] Electronic source.

- NLP (Neuro-Linguistic Programming) Techniques
- Assumption Smashing
- DO IT!
- LARC Method
- Unconscious Problem Solving
- The TRIZ method
- Fuzzy Thinking
- Some further examples of creativity techniques and guidelines linked with historical examples.
- Breakthrough Thinking - The seven steps of uniqueness, purpose, solution after next, systems, needed information collection, people design, and betterment timeline.

12.1. Suggestions for maximising personal creativity with applications for teaching and learning

This is a compilation of different ways of enhancing creativity which can be applied to a variety of different areas in one's personal life as well as in teaching and learning

- Give yourself permission to do things creatively and try to overcome your personal blocks to creativity. For some people being creative may involve ridding oneself of inhibitions and embarrassment at their own ideas. Be aware that things can be done in many different ways.

- Develop a philosophical attitude towards failure. Failure is relative, an apparently negative outcome could lead to a new idea or possibility and may be help towards a solution for another problem. Related to this is the need to be open to alternate solutions.

- Recognise your own abilities and ways of working and be prepared to modify or change them. For example tackling a difficult area first may be best because energy levels are high, but it is also important to realise that it may be best to leave more problematical areas to later so that the unconscious mind can be left to work on the problem.

- Increasing creative ability involves practising both divergent and convergent thinking processes.

- Learn to discipline the mind to create many possible solutions to a problem. At the beginning of your effort be open to many avenues of solution, record rather than discard the distracting sidelines that may occur to you.

- Be aware that at some point in the creative process you will have to sort through the various ideas, evaluate their usefulness to the matter in hand and converge on a solution

- Keep a journal of some kind to record ideas, thoughts and sketches as soon as they occur to you and review the journal regularly and see what ideas can be developed.

- Study books on creative thinking techniques and put them into practice

- Attend courses on creative thinking and put them into practice

- Use techniques like brainstorming and mind-mapping to generate and organise ideas

- Develop an interest in variety of different things, preferably areas well away from your sphere of work. Creative people are usually interested in a wide variety of subjects.

- Take up and practise relaxation activities and sport. They help towards a more balance lifestyle and allow the mind to rest and time for the subconscious to digest and process new information.

- Don’t work too hard - one needs time away from a problem to be creative after periods of intense focus.

- Think of creativity as a skill or set of skills. By practising one can become better at using them

- Whenever you have the opportunity, try and do mundane things in novel ways. It will make them more entertaining and you will get more used to expressing yourself in different ways.

- Anything can be achieved by breaking it down into its component parts. Creativity requires patience and a willingness to work for a creative outcome rather than simply waiting for enlightenment.

- Setting up an environment that encourages creative output can encourage creativity. This may well include a comfortable space where you do not feel threatened and able to create.

- Music can be used to create an environment unique to each individual. Experiment with different musical styles to see what works best. Use music to create an environment conducive to new ideas and cutting down on mental blocks. Avoid music with lyrics. Classical, light jazz, electronic and instrumental music of various forms can work well. Avoid music that demands your attention. Avoid music with large sudden changes in amplitude. Use music with sustained tones and subtle variations. If you don't work to music, take breaks from your work from time to time and listen to music. It can recharge you and even encourage new neural pathways in the brain. Music has the power to make you feel good and thus probably more creative.

12.2. Duncker's Experiment [17]

An experiment carried out by the psychologist, Duncker demonstrates how easily the human mind falls back on preconceived ways of thinking.

Duncker set a group of students the experimental task of making a pendulum. Each subject was taken to a table where together with some miscellaneous objects, was a cord with a pendulum weight attached to its end and a nail. All the person had to do was drive the nail into the wall, and hang the cord with the pendulum weight on the nail. But there was no hammer. Only 50 per cent of the experimental subjects (all students) found the solution: to use the pendulum weight as a hammer.

Next, another group of students, of the same average age and intelligence, were given the same task under slightly altered conditions. In the first series the weight on the table was attached to the cord, and was expressly described to the students as a 'pendulum-weight'. In the second series, weight and cord were lying separately on the table, and the word 'pendulum-weight' was not used. The result was that all the students in the second group found the solution without difficulty. They took in the situation with an unprejudiced mind, saw a nail and a weight, and hammered the nail in, then tied the cord to the nail and the weight to the cord. But in the minds of the first group the weight was firmly embedded into its role, as a pendulum weight and nothing else, because it had been described as such and because it visually it formed a unit with the cord to which it was attached. Thus only half of the subjects were able to break out of the context created by that label, and to perform the shift of emphasis which transformed 'pendulum weight' into a 'hammer'. It

[17] Recounted by Koestler 1989: 189-90.

seems that so many students failed at such a simple task was because of the stubborn coherence of the perceptual frames and matrices of thought in our minds.

The visual gestalt of weight attached to cord, plus the verbal suggestion to those students by their teacher made the 'pendulum-weight' stick tenaciously to its framework.

APPENDIX 13

FEEDBACK ACTIVITY GENERATED BY THINKING ABOUT 'GOOD LEARNING' EXPERIENCES.

We have used this activity near the beginning of a University pre-service teacher training course on

'classroom management'. The starting point was adapted from an activity called 'Ghosts behind the board' (Woodward 1992:44) where students are asked to think back over their learning experiences, make a rough estimate of how many teachers they have had (students asked to do this usually come up with a figure of around fifty, which includes teachers of different subjects, asked to focus on teachers of English, the figure usually varies widely) and to try and focus in on some particularly good learning experiences they have had.

That done they are asked to try and focus more narrowly on a particularly good learning experience and try to pin down anything they can remember about the experience. This can include the time and place, the general environment, who was involved, how they felt and in general why the experience was a good one. Having done this and clarified their thoughts by trying to write down a short paragraph to describe the experience, students are then put into groups and invited to share their experiences.

At this stage several options are opened up. For example from the sharing of their experiences groups of students can be asked to select 6-8 key words which characterise their good learning experiences. These can later be shared, compared and discussed with the whole class. Another possibility is opened when students are asked to write a sentence at the top of a sheet of paper which summarises what for them characterised their good learning experience. This in turn can be followed up in various ways. It might for example be included in their learning journals to be reflected on and modified or confirmed in the light of their accumulating experience. It might be expanded into a fuller, essay-type piece of work at some stage during the course where they can expand on their original sentence by including relevant aspects from the course.

Another possibility is in posting the sentences up on the walls of the classroom. Then, giving students some time to move around the class and to read the comments of their colleagues, they are invited to respond to those comments. Following students can respond either to the original comment or to the contribution of the previous student. In this way a type of ongoing and dynamic dialogue is set up, from which many points can later be developed and discussed in class, and which can be referred back to in the light of later input in the class.

The activity can be left to stand as it is, demonstrating to students how validity is given to their responses and how their own experiences are as important as any theoretical information which may be imparted to them. In addition it highlights the fact that good and creative learning experiences can occur in a wide variety of contexts and not only in classroom settings. Students (future teachers) are shown how by drawing on a variety of factors and combining them in new combinations we might make learning experiences more rewarding and creative.

In addition, there are other aspects contained within an activity like this which, apart from providing feedback for both teachers and students also combines some other elements which help to make learning environments more relevant and motivating to more students, by including elements like interaction, physical movement in the classroom, breaking down the preconceived view of the classroom as a place where people sit and listen to the teacher, we open up the possibilities for more learner friendly and flexible learning environments.

We have used the option of putting students work up and the walls for ongoing comment, and some examples of feedback from both groups are reproduced here.

We give examples here of responses generated by this activity with two different groups of students[18]. In the first case, the students' original sentences were printed up on a word processor. In the second the students' original sentences appear in their handwriting. In both cases, the contributions of the students appear as they wrote them. It should be pointed out that the first group was a much larger group than the second group. Apart from the quantity of feedback collected from group one, some other elements differentiate the two groups.

In group one we notice much more diversity of response and more reference to aspects bearing on teaching from outside of the classroom context. In addition the

[18] 4th year students of English Philology at the University of Jaén 1999-2000& 2000-2001, following courses of Enseñanza del Inglés en el Aula/ Classroom Management

feedback from group one reflect a more daring attitude, they seem to want to challenge and provoke each other into breaking out of set patterns of response. Some remarks were added which seem flippant and to have little bearing on teaching and learning, those who dared to write such comments may not have met with the approval of everyone but nevertheless provided the shock of the unexpected and as such may have triggered off different responses from the more orthodox ones, comments reacting to the content or to the person who wrote it.

Both sets of feedback were collected in the first week of the courses. The first group, over the duration of the course revealed themselves to be a highly diverse group of people, made up of all personality types as one normally finds in any group of people. However more than anything else this particular group of students stood out for the unusually large proportion of outgoing and highly participative students who had no reservations in speaking aloud in class, in expressing their opinions and enthusiastically taking part in any activities which were proposed to them, however unorthodox they may have seemed. While there were many students who were less outgoing and at times timid, many other students seem to get carried along on the tide of energy that the outgoing students generated. These elements are all reflected in the feedback responses of these students. The energy of the group provided a kind of creative driving force which animated everyone, providing challenges for everyone, the teacher included and demonstrated to what extent a dynamic teaching learning situation sets up its a special momentum. Teachers prepared to go along with the flow of these types of classes will find them challenging but rewarding in many ways, for from situations like these creative teaching and learning naturally grow.

The second group by contrast, produced much less variety of response (it should be borne in mind that this was also a much smaller group of students), and were much less daring and challenging in their responses to the same activity, tending to play it safe instead of taking risks or taking the role of devil's advocate to provoke the follow comments of other students. It would be interesting to follow up the later careers of these students and to see to what extent if any they are reflected in their behaviour and reaction to activities such as these.

APPENDIX 14

ARE YOU HONEST? A FEEDBACK ACTIVITY FOR TEACHER TRAINING.

We have used this activity and others derived from it on pre service teacher training courses. The activity was devised and carried out in response to a situation which we felt had not presented the material in the best way or used the time available to advantage. While we were aware of this we also wanted to draw the students' attention to the fact that we were aware and that we were not happy to simply forget about the matter.

The circumstances of the class were as follows: it was the last hour of morning classes at 1.30pm the classes having started at 8.30 am and the lesson content was delivered in lecture format mainly because of the amount of material to be presented and the limited time available, which went against our more usual approach of including a variety of process options into the class. It was obvious that students were having problems concentrating and maintaining their interest. At the end of the lesson students came to life as they made their way to leave the class and we devised the following activity which we named 'Are you honest' for the next time we met as a class.

Are you honest?

1. We gave out slips of paper to all the students, not explaining initially why we were doing this.

2. We asked the whole class a question telling them not to answer aloud or to exchange their ideas with anyone, but rather to reflect on their response to the question. The question was ' are you honest?'

3. We then asked students to cast their minds back to the lesson of the previous week (We realised that while the experience had most probably faded from their minds, it remained clear in ours and so we gave a few brief clues to

remind them of that lesson) and to write down how they had honestly felt in that lesson.

4. They were asked to fold up their slips of paper without showing them to anyone, to leave them anonymous then to pass them on the student at the end of the row. This student then opened the slips of paper after a quick glance at them to obtain a general idea of the responses to select two or three comments for whatever reason, for example because they were representative of the whole collection, because they were revealing, daring, interesting…

5. The seating in the room was changed to less formal circular arrangement and the students who had collected the slips then read them out aloud to the class. This created an air of expectation in the classroom as students were curious to find out if their comments would be read out and perhaps a degree of apprehension spice the atmosphere up.

6. When the selected comments had been read out, and received in various ways, we asked another student to read out a note that we had previously prepared without their knowledge, about the lesson in question. The note contained comments which were remarkably similar to those the students had written for example that: the students seemed bored, tired, hungry, a more interactive approach might have kept more people interested, students had to listen for a long time, and so on.

7. The follow up: Our intention was to let the activity speak for itself and we hoped that students might draw their own conclusions. We did however, spend a few minutes talking about it afterwards, gathering the threads together and getting their feelings about the activity in general.

General observations:

In keeping with the importance of responding to feedback our reflections on the whole experience were as follows:

The activity was useful in various ways.

- It forced the students (future teachers) to reflect on how they felt during one particular lesson, to consider some of the reasons for those feelings, and give them a chance to express them.

- It showed students how I had been aware of the negative aspects of the lesson, and that as future teachers they too need to be conscious of what happens in their classes and to look at some of the reasons why.

- It reminded them as future teachers of factors, like for example the time of day, the day of the week, the influence of the previous subject on the timetable on the present lesson, the students' state of mind which teachers can have little influence over, but that there are nevertheless measures teachers can take to make the teaching / learning situation more efficient, stimulating and motivating.

- For these university students whose days were made up of mainly theoretical input with not a great deal of classroom interaction, we had the impression that it was unusual for them to be asked to express their opinions honestly in class and to have those opinions publicly exposed. It may also have given them some insights and perhaps a little confidence to introduce some basic types of feedback activities in their future teaching posts.

APPENDIX 15

FEEDBACK FOLLOW UP TO A GROUP WORK AWARENESS RAISING ACTIVITY

We have developed this activity on pre-service teacher training courses[19]. One element of this course was to explore the advantages and disadvantages of getting learners to work in groups in foreign language classrooms. While it seems to be generally assumed by a proportion of teachers that group work has positive benefits in foreign language classrooms there are always others who for one reason or another are either not prepared to consider the possibility as a viable one in classrooms, particularly with large classes. This may be related to perceived or real problems of organisation and monitoring, or may reflect a personal preference for individual work. Whatever the reasons, we cannot assume that everyone will feel the same about group work and be prepared to include it into their repertoire of classroom processes.

With these considerations in mind and to focus students' attention on some issues of group work we involved students in various activities which were intended to help them think about the advantages and disadvantages of working in groups. One particular activity adapted from (Hadfield 1992) requires students to discuss a given topic while one member of the group is given the role of listener and recorder of interaction within the group. While the group discussion is going on the listener takes no part in the discussion, but later reveals their task and their findings to the rest of the group.

This activity is intended to highlight the different roles that people assume within in a group even when no particular role has been assigned to them. In order to exploit activities of this type it is important to give students time to discuss their reactions and responses after the activity and as such we see this as forming a part of the activity itself. After this stage has been carried out it is useful to then draw the groups together and get oral feedback. However in large classes this is not always

[19] The subject was Enseñanza del Inglés en el Aula/ Classroom Management and forms a part of a degree course in English Philology

viable from the point of view of the time involved and the practicalities of acoustics in large classrooms where students at the front of the classroom may find it impossible to hear those at the back and viceversa. In such circumstances we have found it useful to collect feedback and make it available in other ways.

One fruitful way has been to get students to write a brief comment or observation on some particular aspects of the activity on a slip of paper. These are then collected in and stuck onto sheets of A4 paper and photocopied. In a following lesson these can be put up on the classroom walls for students to read, reflect on, and perhaps discuss further. Or students can be given a copy to keep providing them with a record of different viewpoints arising from the activity. While this particular account deals with the outcome of a specific activity on group work, variations clearly lend themselves to a variety of other applications on teacher training courses and in other many other areas of teaching.

Some examples of such feedback collection sheets are included here. From the point of view of creativity these responses do not of course in themselves reflect any particularly unusual or innovative responses. Rather, the collecting together and validation of a variety or responses demonstrates a willingness on the part of the teacher or trainer to be open and flexible especially if they are seen to take students' ideas into account at some future stage in the course. Being open and flexible can generate considerations and points which one might not have necessarily have thought of oneself, (for both the teacher and the student) and this in itself broadens ideas and perceptions which in turn enriches knowledge and experience, and helps to keep us from responding in habitual ways which work against creative teaching. This type of practice opens possibilities and mains the lively classroom dynamic necessary for creativity to flourish.

APPENDIX 16

GENERATING CREATIVE OUTCOMES IN TEACHING

The 'Dids' and the 'Dos'

Teachers who have to teach the same content within the same syllabus to different groups of students may fall into the trap of repeating the same lessons in the belief that this is the easiest thing to do. It may appear to be the 'easiest' thing to do, but perhaps we should question what 'easiest' might mean. It may be that no further lesson planning is involved, supplementary and complementary materials may have been selected, and so on. But 'easiest' may not always equate with best or the most rewarding for teachers and students. Taking the seemingly most effortless solution may paradoxically result in a more difficult task for teachers and in less productive outcomes all round.

There are a few points to mention here, although it may seem to be stating the obvious, no two classes are the same. We all have the experience of a class with whom one thing works well and with which students seem to become involved and benefit from, and another group where the students are of the same level and background but where the activity or exercise for some reason does not trigger the same response in the students. This may then trigger the possible consequent response in the teacher that "this isn't working", which can lead to at least a couple of possibilities, that of carrying on regardless of student response or of shelving the plan and being prepared to improvise or draw on one's repertoire of ideas and activities. There are of course other factors here, for the classroom is a very complex environment where many different elements come into play. Not the least of these is in the teacher herself. We, just like our students are not constant in our mood, state of mind, or physical state of health. On days when we feel less dynamic we may well observe that our own performance is affected, even though we may consciously work not to let this show, it is an inevitable part of life. Bearing this in mind we should be aware of these elements in our students.

Much has been written on the subject of lesson plans, but without embarking on this discussion here, we wish simply to restate something that many practising

teachers may agree with and which applies in our own experience. It is almost impossible to use one's own lesson plan for one class again in exactly the same way with another class. Even more problematic is to use a lesson plan devised by someone else. Magazines and publications[20] directed at teachers produce photocopiable lesson plans, which are often excellent and interesting in their content. These often derive from teachers who have found a particular format and theme that has been successful for them and they are encouraged to share them with other teachers. These plans can work on a general level but it would be interesting to know how easy teachers find it to use these plans, as they stand, with their students. Even if the plan is followed in a general way, we would suggest that teachers inevitably adapt elements like for example; timing, emphasis, what type of interaction patterns to follow and so on. The main value of the pre-designed lesson plan lies in the key idea or main concept, or in the triggering off of ideas by the 'plan'. Also, an important outcome could be in the actual execution of the lesson plan and in the possible variations that teachers generate in response to the fusion of the materials, the activities the students and their own way of working.

In a similar way as we know from our own experience, we find it impossible to teach the same lesson in exactly the same way, more than once. Thus one's own saved lesson plans may take the main burden out of the preparation of a parallel class, but the result in the classroom will never be an identical lesson. This is for reasons like those we have mentioned above and also for another very important factor. Teaching the same lesson again can be boring. If teachers become bored with what we are doing we can only expect the same of our students. In addition abiding strictly to the plan means, more than anything, not responding to the fact that your class is made up of human beings who are all different, regardless of whether they all come from more or less the same background and have more or less the same level. To those who do feel that a plan can be taught in the same way over and again, the teacher is teaching a subject and not teaching a subject to people.

While it has been our experience that working within the constraints of the subject and content to be taught, time available, etc., obviously imposes its own limits, working with, for example three parallel groups, is, rather than being a good reason for following an identical plan and perhaps misguidedly believing this to be the only solution, an ideal opportunity for exploring the different possibilities thrown up by the different groups.

[20] See for example English Teaching Professional or IT's for Teachers

Thus while keeping in mind the basic structure or plan for each lesson, one can also develop an open, receptive and sensitive attitude to the responses, interests and needs of each of the 'parallel' groups. At many stages in a lesson there will be points at which various alternatives may suggest themselves if, and this is important, the teacher maintains an open and flexible position, and is responsive to subtle clues and is prepared to fine tune in to the particular group they are working with. It is a mistake to lump together the experiences of teaching all groups together as if they were one homogenous group. By cultivating this type of attitude towards groups of students, several interesting things will happen.

Students will notice (either consciously or unconsciously) that the teacher is responding to them and their responses and not riding roughshod over them in favour of the content to be taught. This will result in a better classroom atmosphere, and increased teacher – student rapport, and as a result better student- student rapport, an important element when we want to create a pleasant classroom atmosphere and especially when we are interested in having students working in pairs or groups.

Teachers themselves will learn more in the teaching process if they maintain a flexible attitude, both about themselves and their teaching and about their students.

Keeping a simple record of what happened in each class where one jots down briefly the different stages of the lesson allows one later to see what happened and to be aware of the slightly different directions each class took. This in turn can make us aware of the infinite possibilities inherent in each class we teach. Generating possibilities helps to keep minds open and to open out further avenues for exploration. Thus the situation where a teacher has to teach the same lesson over and again can become rather than a limiting and frustrating one, a creative and generative one, if one chooses to view it that way.

The brief time involved in jotting down notes after a lesson is worth the burden of yet another task. Firstly it serves a very practical purpose. Even without specifically allowing for the possibility that one class might develop in a slightly different way from another, it seems almost inevitable that differences there will be. If one wishes to be able to remember what happened in a lesson and thus be able to follow up accordingly, relying solely on memory may not be enough. A written note shows the direction the class took and also allows one to check that in spite of the alternatives taken and slightly different directions followed that the students are all receiving the same basic content as required by the course.

The simple fact of keeping a record of what happened can open one's eyes to other possibilities. An idea generated in or by one group can later be tried out on another parallel group.

Paradoxically too, although we are looking to take into account the differences in our students, it also reminds us of areas which we may not have been aware in our pre-planning, and shows up areas of common concern, areas of difficulty etc., It also allows by the slight adjustment of small parts of the lesson, the opportunity to observe the different outcomes it provokes, in our students, in their learning processes and in ourselves as teachers. Working with parallel groups also provides an ideal scenario for carrying out classroom research.

It allows 'creative space' to develop in the class. As has been pointed out by various writers (Fanselow 1987, Stevick 1989, Underhill 1999) changing what may seem like a very insignificant detail can set off a series of previously unforeseen events and possible avenues for exploration.

Thus positive aspects of teaching parallel classes might be emphasised, instead of negative ones. Among the positive ones is the possibility offered to us for generating alternatives, for encouraging individual responses and interweaving them into our lessons.

In practical terms as we have mentioned above, all that is needed is the discipline of taking a few minutes after each 'group' lesson to note down what was done in that lesson, being aware particularly of points where things deviated slightly from the plan and where they took the class to, and of original or unexpected responses or questions from students. This can be done by drawing two columns one labelled 'did' and one 'do' to be filled in for each group, on a dated piece of paper, where you note what you /the class did, and therefore what you will 'do' or how you will follow up in the following class. This then allows one to plan the following lesson taking into account any small changes that happened, to incorporate them into the following lesson, and at the same time to ensure that the overall plan or content remains the same so that all students are covering the same content material. One other clear benefit is that one is saved the embarrassment of confusing what one did with one group of students with what one did with another.

In addition a simple ongoing record like this allows one to compare the subtle ways in which each group evolves, of differences and of alternatives suggested and furthermore leaves you with an ongoing record of how the course developed. Writing immediately after the class ensures a freshness and attention to subtle elements that may disappear from the mind if left for another day.

APPENDIX 17

PRECONSCIOUS LEARNING MATERIALS

This appendix gives examples of materials for use in the classroom where a shifting focus between preconscious thinking or primary processes and secondary processes may be facilitated. The examples given show firstly how the main content of a language class might be presented and subsequently worked on and secondly, other ways of presenting input peripheral to the main content of the lesson.

17.1 Exploiting the interplay between primary and secondary processes in the teaching of grammar in foreign language classrooms.

When teaching grammatical structures, instead of explaining structures, (an approach similar to the deductive method) the structures should be embedded in some kind of enjoyable activity so that the conscious mind continues to dwell on the activity rather than becoming 'stuck' in the grammar. A similar principle operates in suggestopedia where a dramatic reading of the text is done in which the structures to be learnt are embedded, and the reading is accompanied by music. Contrary to most traditionally accepted ways of teaching grammar such approaches avoid doing grammar for its own sake, or set out to focus on a particular structure

In order to exploit the power of the mind to absorb information the following points should be taken into account

- Demonstrations should be as short as possible
- Work at speed, as slowing down puts the conscious mind in focus.
- Reduce verbal explanations to a minimum (which focus on left brain and sequential thought processes) and use visual presentations whenever possible.
- If posters are used, leave them on the wall for a while, not indefinitely as it then becomes reduced to wallpaper which is no longer registered. It is also

suggested that posters relevant to the language to be worked on be put up before working on them in class so as to prime the brain to look at it later.

- Do not follow up immediately with exercises, drills or grammar-based activities, these should wait. Instead, return to the activity interrupted, and follow up later, with games and activities designed to activate the structures.

Other points to consider:

- Approaches such as these emphasise that the mind needs to be bombarded with a lot of information and that cutting down on quantity reduces the efficiency of the brain, which is a view point diametrically opposed to traditional intellectually focused classroom input.

- The mind will infer meaning through all possible non verbal channels, colour, spacing, bold type, symbols and therefore all media should be used in a meaningful and not in an arbitrary or decorative way.

- Form is more salient than semantics (given that meaning is implicit in the text used)

- All forms of sensory input should be built into lessons, visual, auditory and kinaesthetic

- Using content with an emotional content involves the limbic system of the brain. When learning draws on feelings and emotions it is more likely to internalised and retained.

Visual material

The importance of visual material for presentations, regardless of the predominant or preferred input mode of learners is emphasised, because the eye takes in automatically different dimensions of the information simultaneously, this includes syntactic, semantic, phonological, colour, and shape, and the brain will chunk up verbal information if it is suitably presented. For example blocks of text can be reviewed in a single glance, and whole sentences understood from their contour alone. When dealing with the present simple third person terminal 's' examples can be marked in colour and the rule will be quickly assimilated.

Example of an activity which demonstrates the principles of a pre- conscious processing approach to teaching.

1. A text: Progress.

The American businessman was standing

At the pier of a small coastal Mexican village

When a small boat with just one fisherman docked

Inside the boat were several large yellowfin tuna.

The American complimented the Mexican on the quality of his fish

And asked how long it had taken him to catch them.

The Mexican replied, 'Only a little while'.

The American then asked,''Why don't you stay out longer and catch more fish?

'Because I have enough to support my family's immediate needs', said the fisherman

'But what do you do with the rest of your time?' asked the American.

'I sleep late, fish a little, play with my children,

take siesta with my wife, Maria, stroll into the village each evening

where I sip wine and play guitar with my amigos.

I have a full and busy life, señor'.

The American scoffed, ' I am a Harvard MBA and I could help you.

You should spend more time fishing

and with the proceeds buy a bigger boat.

With the proceeds from the bigger boat, you could buy more boats,

until you had a whole fleet of fishing boats.

Instead of selling your catch to a middle man,

You would sell directly to the processor,

eventually opening your own cannery,

You would control the product, processing and distribution.

Of course, if you did all this,

You wouldn't stay in this small, coastal fishing village.

You'd move to Mexico City, then LA and eventually NYC,
where you would run your expanding enterprise.'
The fisherman asked,' But señor, how long would all this take?'
'It would depend on how hard you worked. I'd guess 15-20 years.'
'What would I do then señor?'
The American laughed and said that was the best part.
'When the time is right, you would announce a IPO
and sell your company stock to the public.
You'd become very rich, you'd make millions.
And if you made millions, you could buy anything you wanted.'
'And what do you think I would do señor, if I were a millionaire?
The American said, 'You could retire.
You'd move to a small coastal fishing village
where you could sleep late, fish a little, play with your kids,
Take siesta with your wife, stroll to the village in the evenings
Where you would sip wine, and play your guitar with your amigos.'

Activation

1. Group reads the text in chorus: four groups, reading one sentence at time, two read as for melodrama, two as for BBC World Service. Interrupt to teach the grammar.

2. Go over the story, but make sure that this is not like a traditional comprehension test. For example draw a picture of the beginning and end and ask learners to tell you what's happening. Questions for example: does the fisherman in his view catch enough fish to make a living? Would the American agree? Does the fisherman have a good life? So what does he do everyday? Mark actions with cuisenaire rods and leave out for later use. Students retell the plan the American puts forward, step by step. Mark each suggestion with a cuisenaire rod and check over for meaning.

3. Break to sing ' If I had a million pounds' as a round, walking.

4. Chair game: circle with one game too few for the group. Pack of cards; person in centre reads a card with sentences such as ' if you won a new car, you'd give

it to one of your children' all of those to whom it applies have to change seats, the last one to get a seat reads out the next card.

5. Puppets: quick back and forward conversation between two puppets emphasising, 'Yes you would' and 'no you wouldn't'.

6. Card game: groups of four, each with a pack of six cards 'What would you do if …you were offered a trip to the moon etc. As they turn up the cards, each person gives their response.

7. Circulation game: Ask if you could change your life in small or large ways, regardless of cost, probability or anything else, and really live your dream, what would you do? Draw images to represent answers. Three 'woulds' and three 'wouldn'ts'. Give time and music to do this. Then circulate sharing with different partners to music.

8. Two circles going in opposite directions. When the music stops, face a partner. Inner person (A) says immediately how outer person (B) would be if head of a primary school. B then describes A as if his/her boss. Same again: if my parent, if my grandchild. Try to work with someone you don't know. This involves use of the intuition.

   It is important to have other activities ready for those who don't want to do the above. For example:

   List all the ways you would change education: I would…

   Write a similar story about two animals who don't understand each other's approach to life, e.g. Tortoise and hare.

   If you were marooned on a desert island, what are the first ten things you would do, in order of priority.

These materials, processes and activities were proposed at a workshop[21] on Humanistic Teaching by G. Hooper-Hansen. All the participants in the workshop took part and experienced for themselves the different stages and activities in the process.

[21] Humanistic teaching conference. REf

APPENDIX 17.2

QUOTATIONS

Examples of quotations and other materials suitable for use in a variety of contexts, which we have used on preservice teacher training courses. Collections of quotations like these are usually the result of a personal interest in some area and the original sources are not necessarily noted. In the following collection the author of the quotation has been cited when known. There exist many collections of quotations[22] published as books and on the Internet.

- To look at the world from a new perspective is to discover a world of new possibilities. *Stanislav Grof*
- Imagination is more important than knowledge*. A.Einstein*
- Whatever you can do or dream you can, begin it. Boldness has genius, power and magic in it. *Goethe*
- Every child is an artist, the problem is how to remain an artist when he grows up. *Pablo Picasso*
- We are the flow, we are the ebb .We are the weavers, we are the web. *Shekinah Mountainwater*
- It is good to have an end to journey towards, but it is the journey that matters in the end. *Ursula Le Guin*
- Whatever you teach, teach to doubt what you're teaching. *Jose Ortega Y Gasset*
- Memory is the diary we all carry about with us. *Oscar Wilde*
- It is good to have an end to journey towards, but it is the journey that matters in the end. *Ursula Le Guin*

[22] See for example Collins Dictionary of Literary Quotations and Electronic sources in Bibliography

- Could you please tell me which way to go from here? Asked Alice.

  That depends in good part on where you want to go.

  I don't really care, said Alice.

  Then it doesn't matter which way you go, replied the cat.

  Lewis Carroll: Alice in Wonderland

- A photograph is never the person. A bridge is never the journey. A musical score is never the sound. There is no magic, only magicians, and what the public perceives.

- We are the flow, we are the ebb .We are the weavers, we are the web. *Shekinah Mountainwater*

- That which the caterpillar calls the end of the world, the rest of the world call a butterfly.

- You think because you understand 'one' you must understand 'two' because one and one are two. But you must also understand 'and' .The magic is in the connection.

- Learning is finding out what you already know. Doing is demonstrating that you know. Teaching is reminding others that they know it just as well as you. You are all learners, doers, teachers. *Richard Bach*

- The meaning of things lies not

  In the things themselves

  But in our attitude towards them

  Antoine St.Exupery

- The poet, then, must feel in images: he must grasp the connections between things- but grasp them emotionally, rather than logically, and he must be capable of seeing one thing in terms of another. Now if we consider those three abilities, we realise that there is a certain innocence a child like nature common to all of them. Imagination demands- and not only from the poet- a quality of innocence. *C.Day-Lewis*

- When it is dark enough

  You can see the stars

  Charles A. Beard

- You know you‘ve achieved perfection in design

  Not when you’ve nothing more to add

  But when you have nothing more to take away

  Antoine St.Exupery

- Yesterday is history,

  tomorrow is a mystery,

  and today is a gift;

  that’s why they call it the present.

- Teachers open the door, but you must enter by yourself.

  Chinese Proverb

- The whole of life lies in the verb *"seeing"*

  Tielhard de Chardin

- Life is what happens to you while you’re making other plans

  John Lennon

- *A good meal, like a poem, or a life, has a certain balance and diversity, a certain coherence and fit. As one learns to cope in the kitchen, one no longer duplicates whole meals but rather manipulates components and the way they are put together.*

- The improvised meal will be different from the planned meal, and certainly riskier, but rich with the possibility of delicious surprise.

- Improvisation can be either a last resort or an established way of evoking creativity.

- Sometimes a pattern chosen by default can become a path of preference.

  M.C.Bateson

- You must be the change you wish to see in the world. *Mahatma Ghandi*

- What lies before us and behind us are tiny compared to what lies within us. *Ralph Waldo Emerson*.

- Colours act on the soul. They can produce sensations, arouse emotions and create ideas which repose, excite or provoke sadness or happiness. *Goethe*

- To live a creative life, we must lose our fear of being wrong. *Joseph Chilton Pearce*
- Each painting has its own way of evolving. When the painting is finished, the subject reveals itself. *William Baziotes*
- God guard me from those thoughts

  Men think in the mind alone

  He that sings a lasting song

  Thinks in the marrow bone. *William Butler Yeats*
- The words that enlighten the soul are more precious than jewels *Hazrat Inayat Khan*
- The most potent muse of all is our own inner child. *Stephen Nachmanovitch*
- Nothing we ever imagine is beyond our powers, only beyond our present self knowledge. *Theodore Roszak*
- A student is someone who is somewhere and is trying to get somewhere else*. Robert Frost*
- Some see things as they are and say "why"? I dream of things that never were and say "why not"? *G.B. Shaw*
- There is nothing either good or bad but thinking makes it so. *William Shakespeare.*
- One at a Time: a short story [23]

A friend of ours was walking down a deserted Mexican beach at sunset. As he walked along, he began to see another man in the distance. As he grew nearer, he noticed that the local native kept leaning down, picking something up and throwing it out into the water. Time and again he kept hurling things out into the ocean.

As our friend approached even closer, he noticed that the man was picking up starfish that had been washed up on the beach and, one at a time, he was throwing them back into the water.

[23] This story by J. Canfield appears in Chicken Soup for the Soul 1999.

Our friend was puzzled. He approached the man and said, 'Good evening, friend. I was wondering what you are doing'

'I'm throwing these starfish back into the ocean. You see its low tide right now and all of these starfish have been washed up onto the shore. If I don't throw them back in to the sea, they'll die up here from lack of oxygen '.

'I understand', my friend replied, but there must be thousands of starfish on this beach. You can't possibly get to all of them. There are simply too many. And don't you realise, this is probably happening on hundreds of beaches all up and down this coast. Can't you see that you can't possibly make a difference?'

The local native smiled, bent down and picked up yet another starfish, and as he threw it back into the sea, he replied, 'Made a difference to that one!'

APPENDIX 17.3

VISUAL MATERIALS

Figure 1. Celtic Crosslet: Knot & spiral

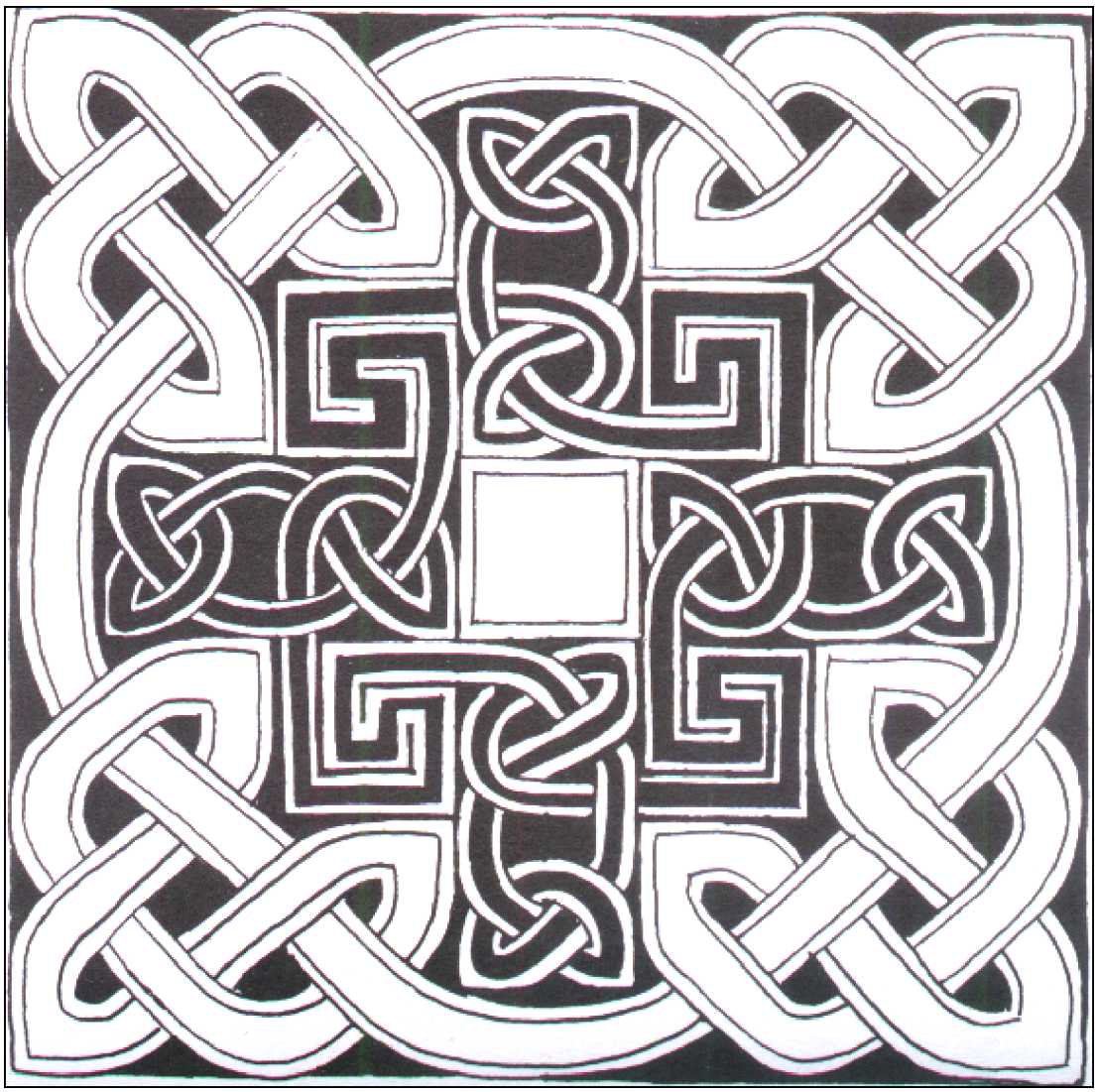


Figure 2. Cross-carpet

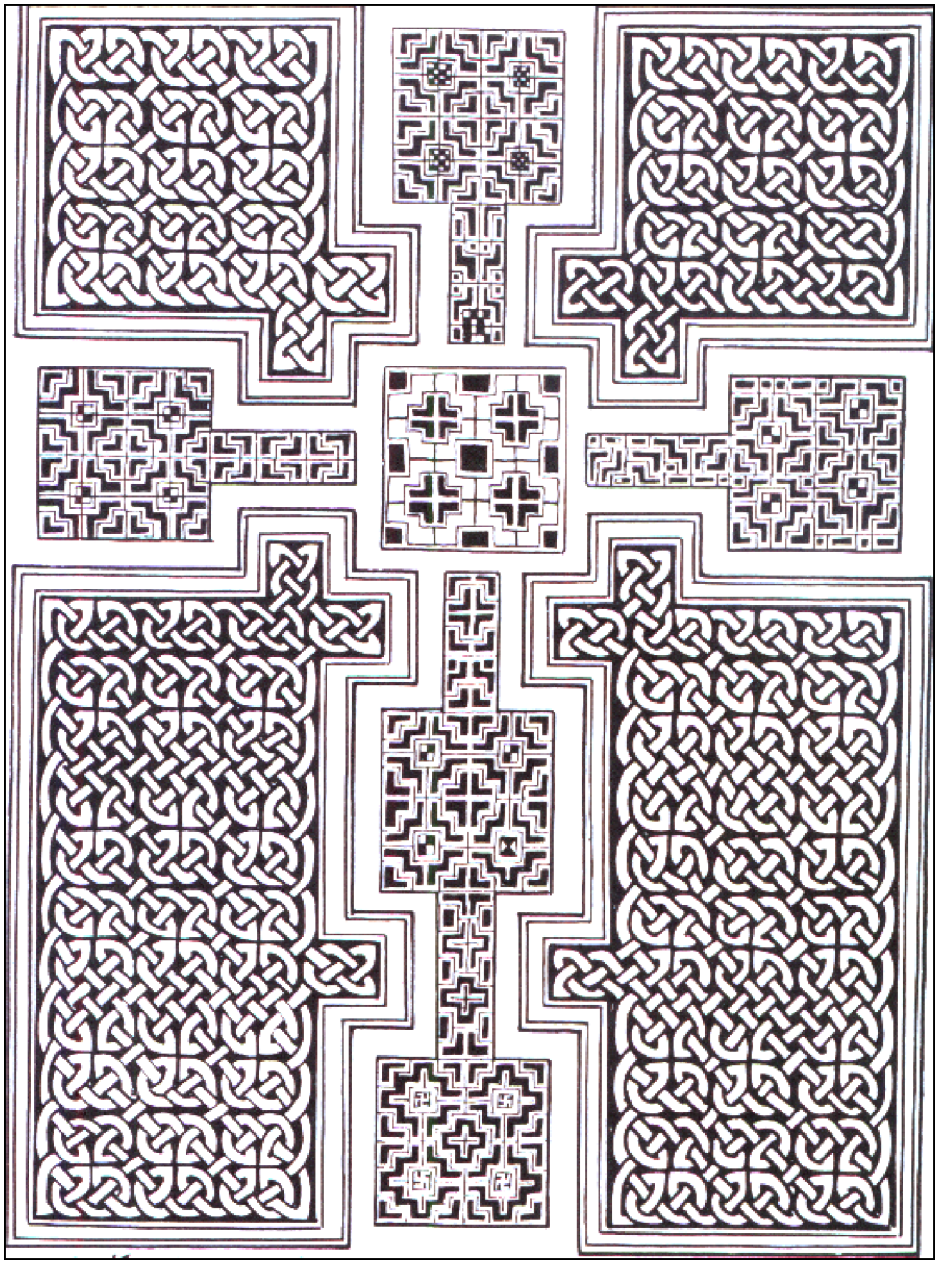


Figure 3. Ornamental Serif. Lindisfarne

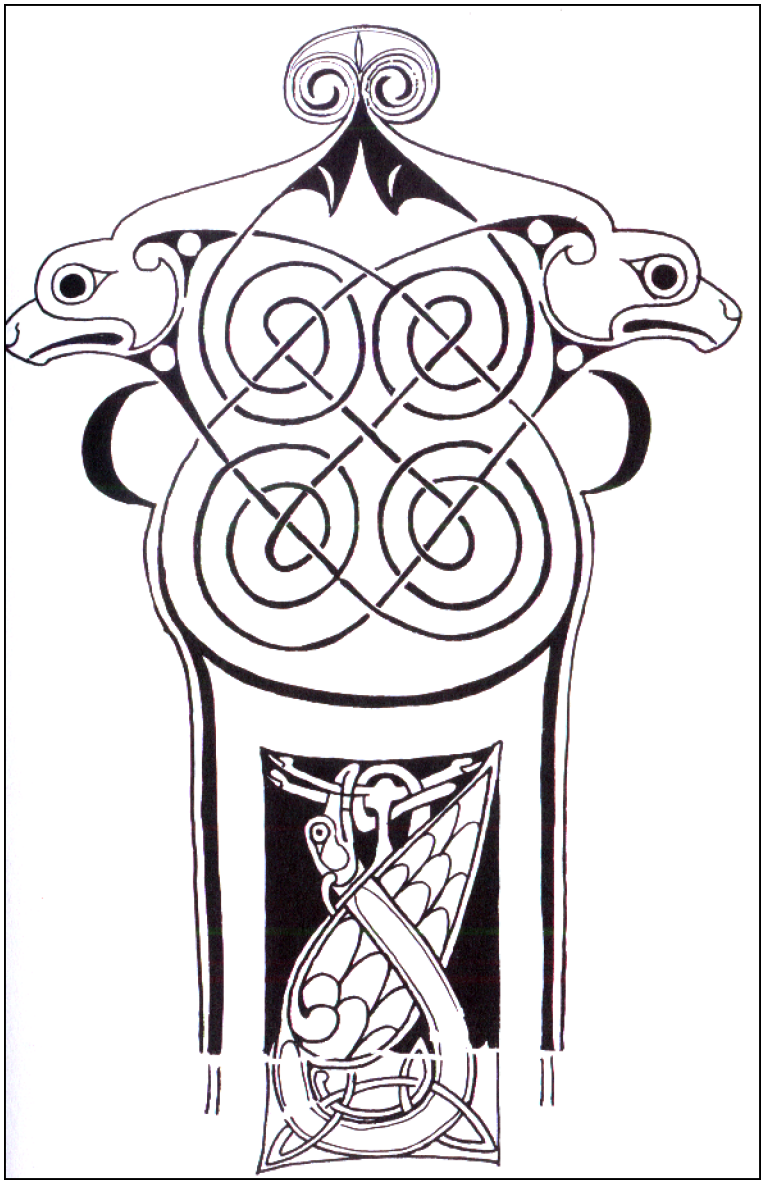
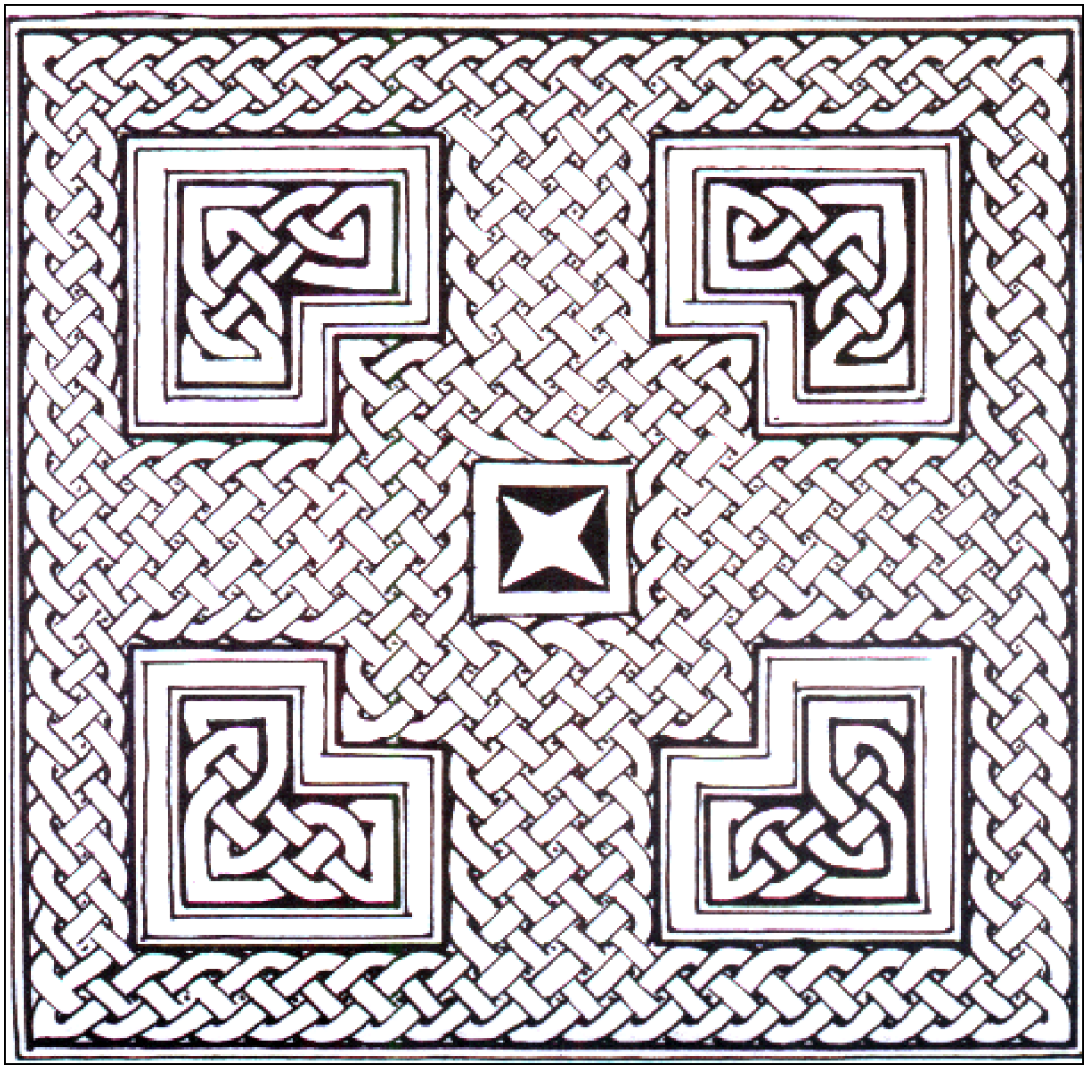


Figure 4. Twenty square plaitwork cross



All four of these designs are taken from:

Meehan.A.1991 *Celtic Design: Knotwork.* Thames & Hudson

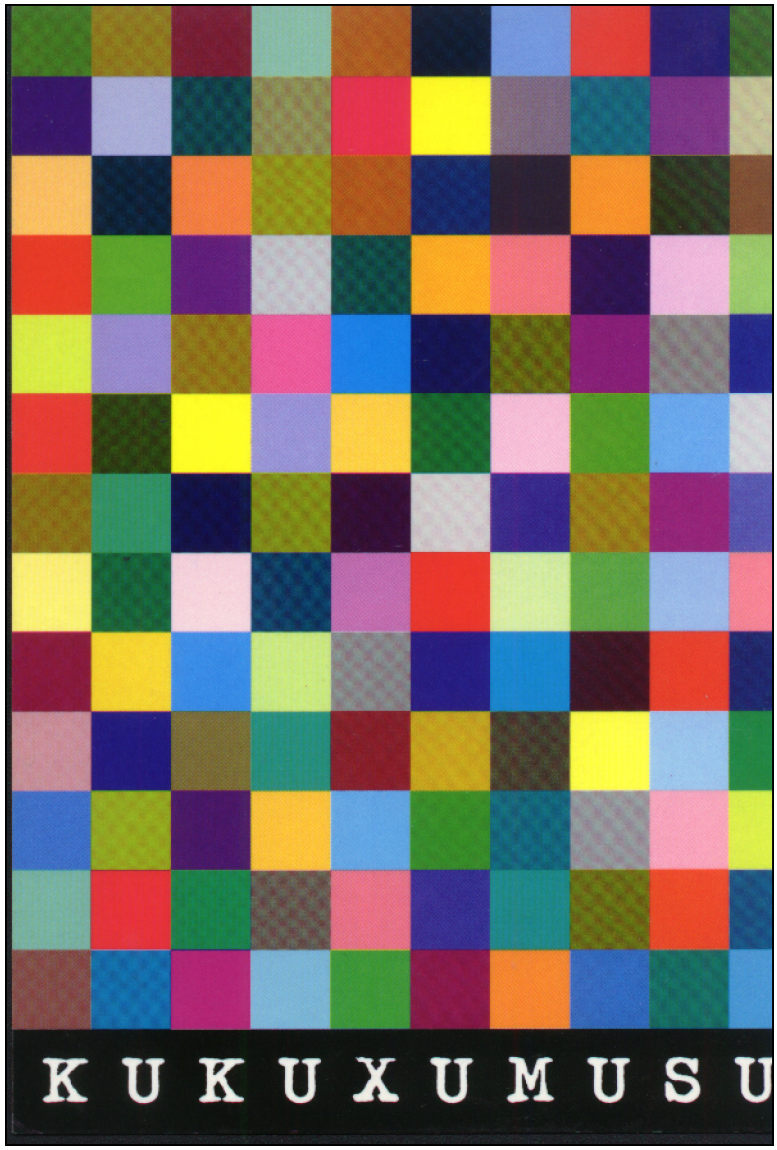
Illustration 1

Untitled. Matthew Hall aged 7 years

See 'thoughts' on life and learning generated by this drawing 17.3.1.

Illustration 2

Kukuxumusu by Michael Urmeneta



17. 3. 1. Students' [24] responses to illustration 1.

Some students contributed these ideas after seeing the illustration drawing comparisons with life and learning from it.

- You can see things with a different perspective if you change your position.
- Imagination can come to us through a single picture.
- Learning a language may be like a bird, you have to make a great effort to catch it.
- Flying for the first time is like speaking a foreign language for the first time.
- We are all birds under the light of a teacher and we will learn to fly when we take risks.
- There is always someone there to help you, a big bird.
- Childhood is a good time to learn.
- A child's mind dreaming about spring.
- Learning to fly.
- The bird on the branch is the teacher, that's why he is drawn bigger and stronger and in such a position. He is the one who guides the rest of the birds (the students) to fly. The bird is not embarrassed or self-conscious, he has his own previous experience. The flowers are symbols of the good things we can find in our studies, good marks, good memories, and classmates, and the sun is the aim, the main purpose that everyone looks for in life.
- The bird is a man who has got up early in the morning, who starts a new day- a sunny and very light day – just a perfect day!
- The big bird is a teacher and below him there is a student who is asking for help. This student tries to learn the target language, but the teacher seems

[24] 4th year Spanish students on a degree course in English Philology, in the subject Enseñanza del Inglés en El Aula/ Classroom Management, 2001

to be using just one language, that is why the bird has one wing closed. I do not know whether the language the teacher uses is the mother tongue but this does not matter because I think what is really important for learning is to use both languages.

17. 3. 2. Examples of students' responses to figure 1

- The drawing that has caught my attention has been the Celtic Design where everything is linked, every point is joined, that is perfect, the integration of different things can generate something, perhaps that can be the key to create an almost perfect thing like in the Celtic design. Everything is interconnected in learning and teaching, students and teacher, practice and theory, thought and heart.

- For me the cross stands for the teacher who is in the middle and the rest are the students that have a close relationship with the teacher. I can also see a good relation between students because the elements surrounding the cross are interconnected.

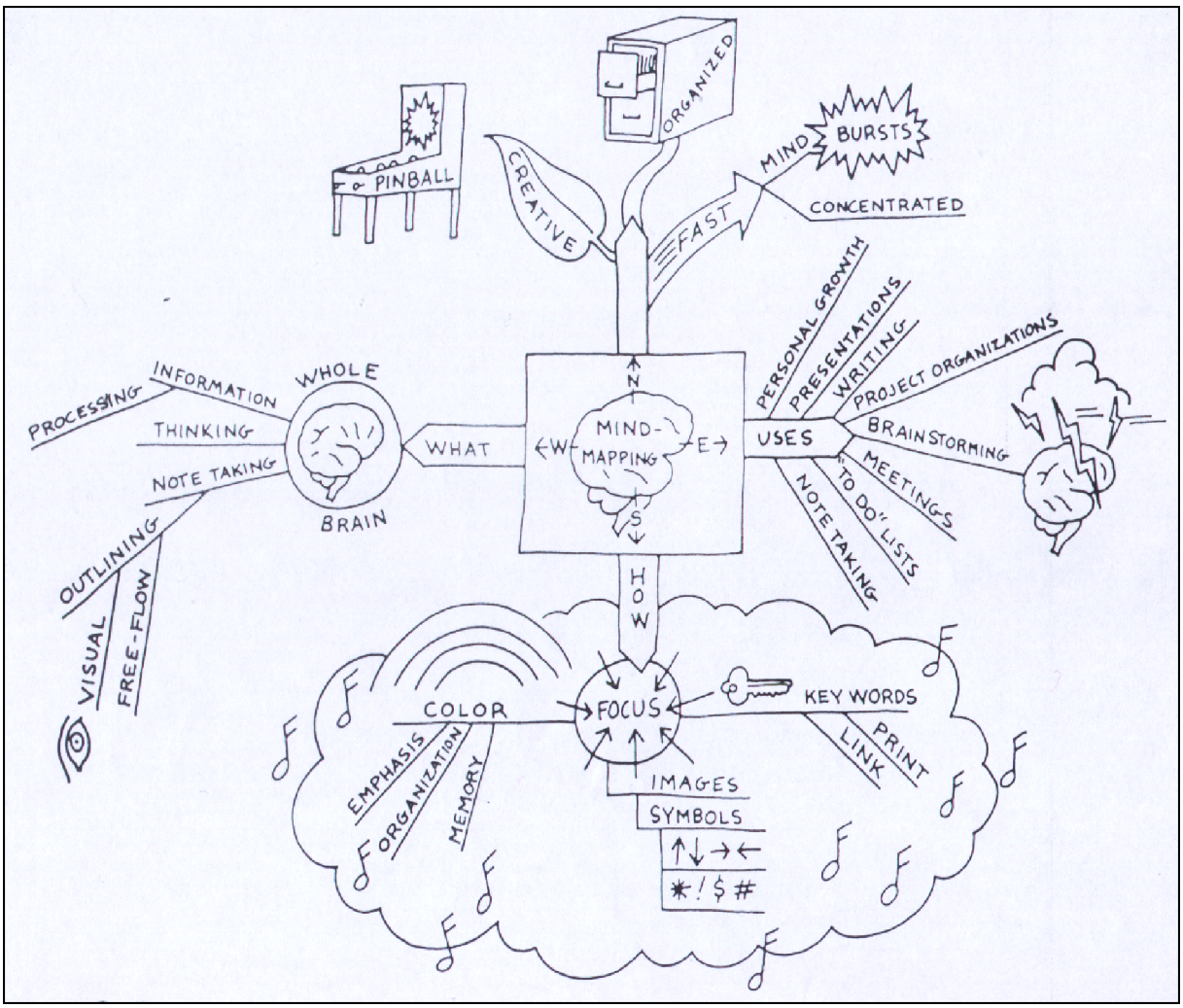
17. 3. 3. Illustration 2

Illustration 2 has been included as an example of colour visuals which can be used in classrooms. We have used this and similar visuals presented as colour transparencies on the overhead projector as the starting point for short activities in the language classroom , for example as a warmer, an energiser or a round off activity. The initial impact of a large block of vibrant colour is quite powerful and generates interesting responses among students. One specific way this colour visual can be used is to ask students to choose the colours which best represent the way they feel at a particular stage in the lesson, and to reflect on the reasons for this. A useful alternative which generates thought and discussion is to ask students to select a colour or colours for themselves, and then a partner guesses which colour they have chosen and why. Working together students then share their ideas, opinions and selections. We have observed how activities like this apart from providing useful language practice, show how colour has powerful connotations related to the emotions and moods. Some students have picked up on the use of colour in their learning journals, selecting different colours to represent their feelings about a particular topic or activity or personal state of mind.

APPENDIX 18

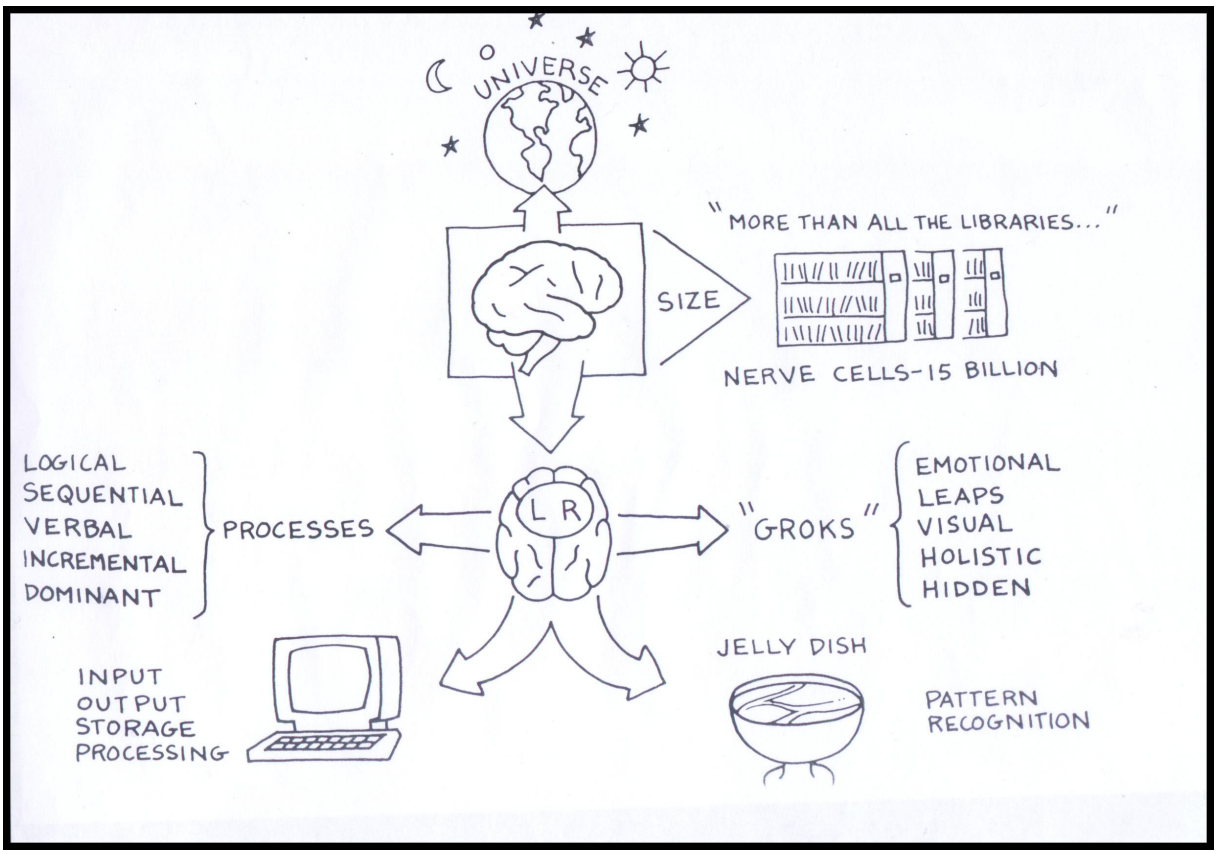
EXAMPLES OF MINDMAPS

A mindmap illustrating the main elements of mindmapping.



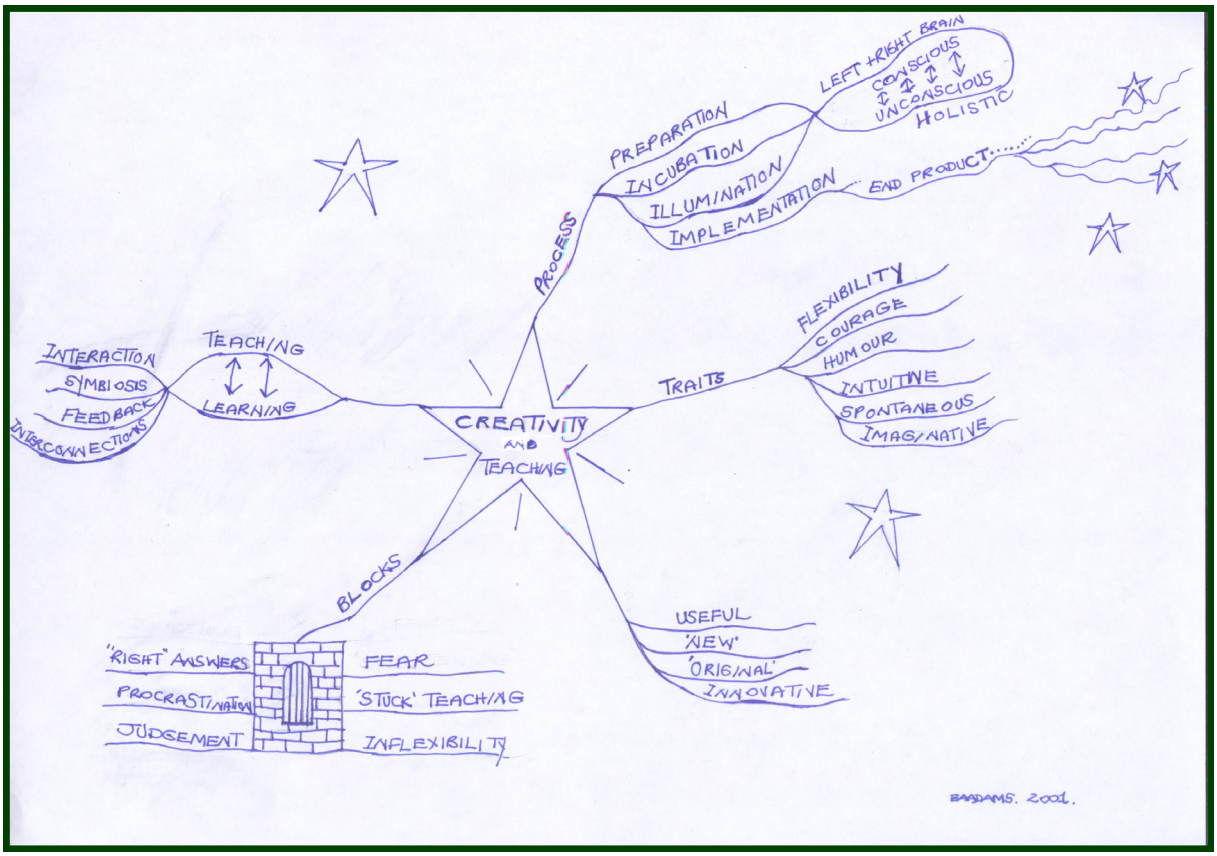
Wycoff, J.1991.

Mindmap showing the complexity of the human brain's processing and storage capacities.



Wycoff, J. 1991.Mindmap representing creativity in the context of teaching and learning.

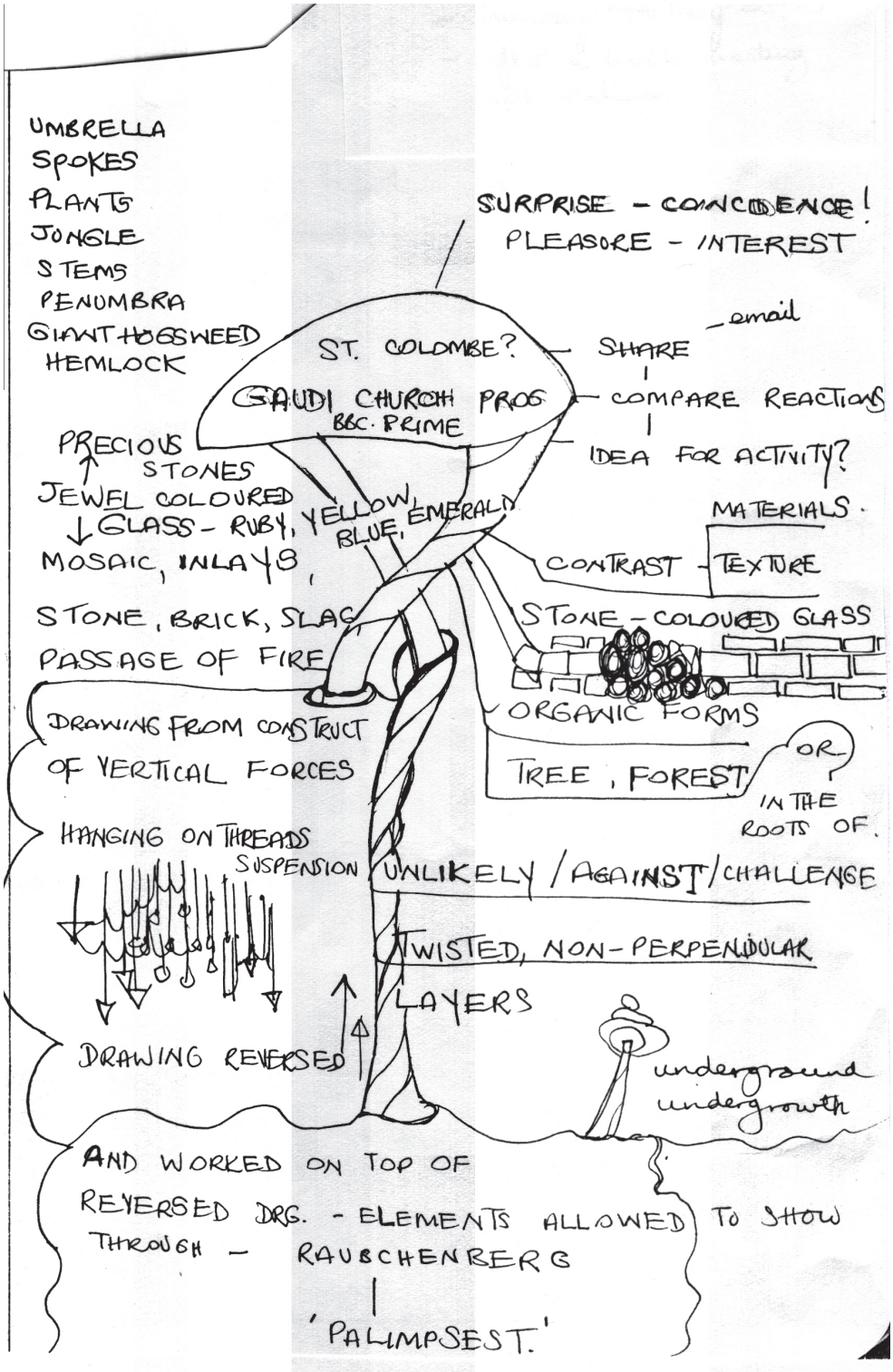
"Creativity in teaching star."



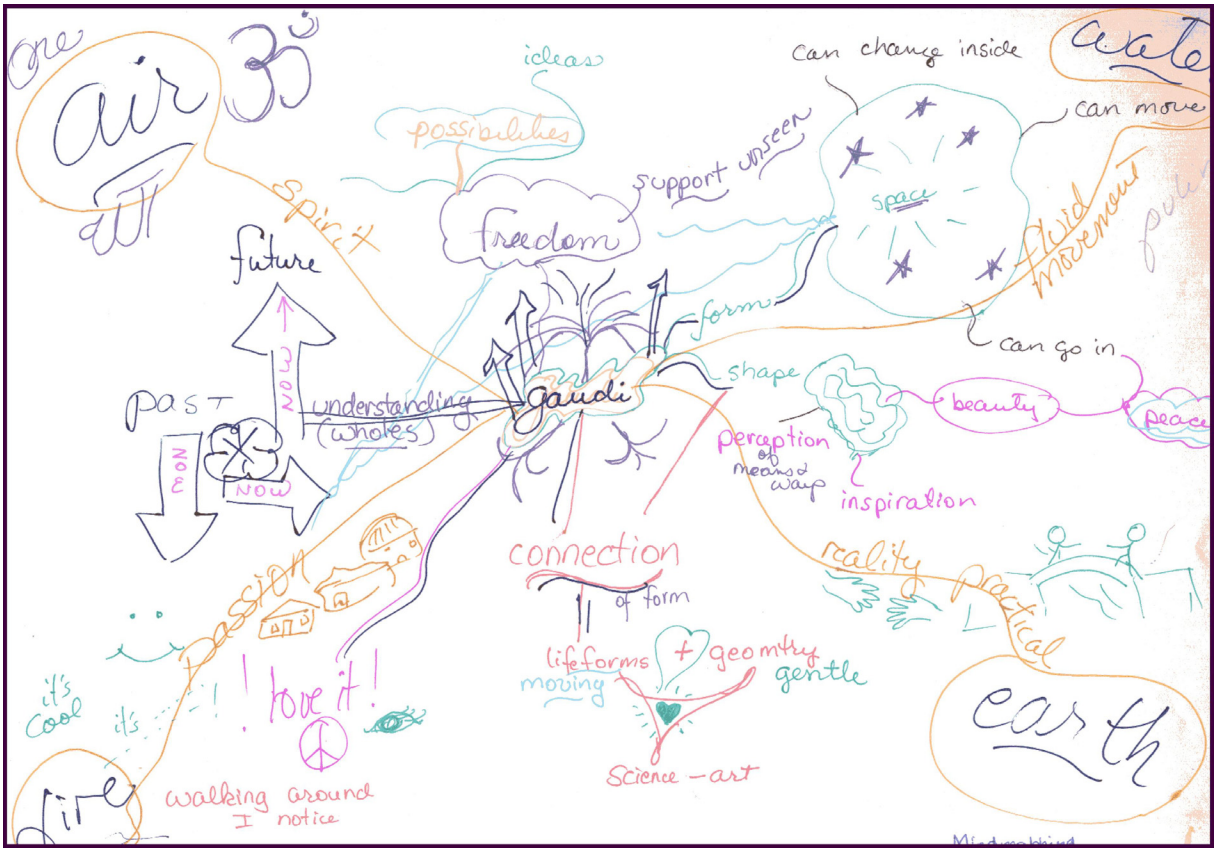
E.A. Adams. 1998

Two mindmaps triggered by the same stimulus, a short TV programme on the architecture of Gaudi which reflect the individuality of style and representation of each person. They also demonstrate how although there are recommended forms for mindmaps, rules can be broken, the important thing is to get the ideas out and to have a visual record of them. (1.E.Adams and 2. H. Brewer)

1.



2.


air
ideas
possibilities
freedom
support unseen
can change inside
can move
space
fluid movement
spirit
future
past
NOW
understanding
(wholes)
Gaudi
form
shape
can go in
beauty
perception
inspiration
connection
of form
lifeforms
moving
+ geometry
gentle
Science - art
reality
practical
earth
passion
it's cool
it's
I love it!
walking around
I notice
fire

APPENDIX 19

VISUAL PRESENTATIONS

If teachers provide opportunities from time to time for students to generate, organise or present their ideas in visual ways they may be pleasantly surprised and so may the students. Bearing in mind factors we have mentioned in this study for example: left and right brain orientation, individual sensory modes processing preferences and the insights of multiple intelligence theories, it is clear that most educational systems, (and with increasing frequency the further one moves up through the system) tend to limit ways of presenting new material to students. In addition, the ways in which students are expected to present their work is similarly limited, most frequently to linear and written forms of presenting assignments.

While this may be perfectly satisfactory and what teachers are used to marking and students used to presenting it is worth considering what may result if for example we occasionally ask students to present their work in a visual format. Not everyone will automatically latch on to this means of expression. Some will take a little time to loosen up and realise that it can be challenging and at the same fun to express themselves from time to time in visual ways. We have observed that when we have suggested students draw their responses they have initially seemed a little bemused, because they have so rarely been asked to do such a thing, but in subsequent lessons even when it has not been specifically suggested that they draw, some students have intuitively opted for this means of representation. Work does not necessarily have to presented in a finished form but the drawing stage is a way of getting ideas out which one can not necessarily express in words. However visual formats and variations of mindmaps can be used as a way of presenting projects or researched areas in class. Both in language classes and on teacher training courses, (the two areas we have focussed on in this study) lend themselves to the crystallising of thought through drawing and can be a valuable source of generating vocabulary based on the concepts already hinted at in the drawing. It is important to point out that no great expertise at drawing is required, doodle type drawing or even just mark making can be just as rewarding.

It is useful to have available a range of drawing materials in colours for language classrooms. Many activities lend themselves to drawing for example, brainstorming

ideas on a theme or topic, building the stages of a story , reconstructing the plot of a film. In any group of students there will be some who really enjoy drawing and are good at it, others who can express themselves through simple line drawings and others who may contribute orally with ideas.

While we have commented on the steady narrowing of possibilities governed by traditional modes of teachers and lecturers presentation of material, and in students' own work as one moves up through educational systems, nowhere is this tendency more pronounced than in tertiary education. In this appendix we show the results of giving university students[25] the possibility of presenting work on two particular areas in visual format. The areas are:

- The compilation of an ELT terminology glossary.
- The presentation of an overview of classroom skills required by teachers in effectively managing activities in EFL classrooms

Compilation of an ELT terminology glossary.

One of the components of the course was in keeping students up to date with the accumulating body of specific terminology related to the literature of teaching English as foreign language. While it is not perhaps an absolutely necessity for a good working knowledge based on experience of some of the key elements of classroom management, it facilitates discussion and clarifies some important elements which have either direct or indirect bearing on the teaching of English as a foreign language. It is perfectly possible to provide students with a list of terminology that they are asked to learn and on which they can later be tested. Lists of terminology most usually come in alphabetical order and as such related concepts or areas which may have some common features are not adjacent, reducing the task to the much maligned learning of lists of vocabulary which are not in context or linked in any semantic way. One approach we adopted in dealing with the terminology aspect of the course was to provide students with a selection of three collections of ELT terminology. From these they were asked to make a selection of approximately forty terms and to decide how to group their selected terms in some way so as to provide logical connections for themselves and which they could justify to others. Students were given the option of how they presented their personalised terminology collection and the suggestion was made that if they wished it could be done in a

[25] Spanish students in their final year of a degree in English studies taking the subject of 'Classroom Management'.

visually graphic way. The presentations were to later be put up on the classroom walls to be perused and discussed by all the students in the group. This posting of the presentations in whatever form they were presented, (graphic, written or a combination of both) was to be followed up by a class quiz gleaned from the total output of the students' collections which included all areas of the original terminology lists. For the quiz each student was asked to prepare three questions together with acceptable answers based on the terminology collections.

One result of opening the options for the presentation to include graphic designs produced unexpected results. On handing in their graphic designs some students confessed to spending much more time on them than they had intended because they had forgotten how much fun it was to draw. Some said they hadn't spent so much time on drawing since primary schools days. We tend to overlook the pleasure element which can be woven into many educational settings and which probably goes some way into helping make the content more personal and memorable. While we are not claiming outstanding merit in the drawings themselves it served to highlight to the students involved, other students who later viewed the work up on the classroom walls and to the teacher concerned, of the importance of providing options in the classroom. We include two examples of these terminology collections, one based on types of drills, exercises and tests and another on … (the original of example 1 was done in a variety of bright colours.

Overview of teacher classroom management skills

In a similar way to the above activity, students were asked to decide on some of the most important skills that teachers need in managing the learning classroom and creating a good learning environment. Once again students were asked to present their work so that it could be put up on the walls and that if they wished they could do so in a graphic form, rather that the traditional written linear format. In class we had been thinking about metaphors for teaching which may explain the highly visual and colourful presentations which resulted from the exercise. We include here several examples, the copies in black and white, which in no way do justice to the colourful presentations that brightened up the classroom for a few hours[26].

[26] In our own ongoing journal record of lessons that we kept parallel with lesson plans during the course of which this activity was a part, we noted, " presentations were amazingly varied. It was very pleasant to have things in colour up on the walls. The students were very quiet walking around, looking at them. There was little feedback from them in the way of comments on the contents, but rather in the way they had been done. Student said they were able to identify some of the work easily because it reflected the personalities of their fellow students. Many interesting metaphors emerged for teaching, a fan, a house with strong foundations, the backbone of an animal, a vehicle. Not all students did visual presentations, some were combinations of written and graphic.

Using and allowing trainee teachers to experience activities like these for themselves and to observe the interest and results generated is a good way of helping them to introduce similar kinds of activities which lead to more individual and creative responses into their own future teaching situations.

Some of the students from this group commented on these visual presentations (which they have referred to here as mind maps even though the presentations were more the results of mindmaps rather than mindmaps themselves) in their learning journals:

- The different mind maps were displayed on the walls. I enjoyed it very much, it was like walking around an art gallery. I think it is a good way of presenting ideas, original and helpful in order to be effective and clear

- The mind maps were fantastic, all of them different and really original and visual, and we could easily see the different skills grouped by different criteria

- This week we have dealt with skills for teachers and mind maps which seemed to be a complete success, as everyone who made one put it on the wall and all could see them. There were different, sizes, colours, shapes…

There are several points to emerge from giving students optional visual ways of expressing their ideas.

- If as teachers we do not ask for different things nor show that we are prepared to accept different ways of responding then we undervalue learners' individuality and creativity.

- By allowing students a choice of ways of presenting their work, we are catering for more visually oriented learners.

- Many different teaching situations can benefit from a drawing option from time to time. Activities of this kind do not need to be reserved for younger learners, people of all ages and levels can respond to such an option if given the chance often with rewarding results.

- Using and allowing trainee teachers to experience activities like these for themselves is a good way of helping them to introduce similar kinds of activities in their future teaching situations.

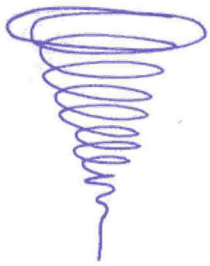
19.1. The "shape of a lesson"

The simple line drawings which follow were the result of a spontaneous activity which grew out of a discussion on the elements required to make a good lesson on a preservice teacher training course [27]. Most people had never tried to conceptualise their thoughts about the "form" or "shape" of a lesson before, and certainly had never tried to represent it in a visual representation, but the results were interesting and we observed how after this exercise students often jotted down an idea in visual form, in a quick sketch or line drawing. Some instinctively drew, and then tried to crystallise their words to express the concept afterwards when sharing with their fellow students. Not all students will necessarily respond to this type of activity, but it opens possibilities in classrooms, especially as sometimes it is difficult to express ideas in words. No type of special drawing skill is required rather the willingness to experiment with mark making is all that is required.

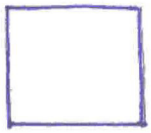
[27] El Enseñanza del Inglés en el Aula/ Classroom Management, an optional subject on a degree course in English Philology at the University of Jaén 2000-01

The shape of a lesson.

Good Lesson



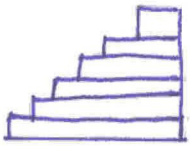
Bad Lesson

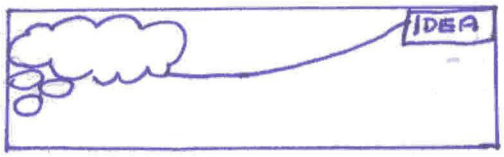


1.A mixture of things, like a whirlwind.

2. A highpoint to the next lesson.

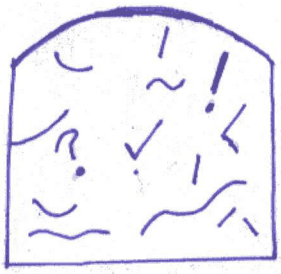
3. At the beginning of the lesson students don't know

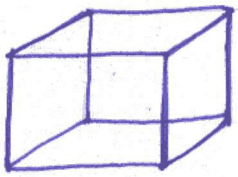




what is going to happen, but then in the end they

have some ideas and are able to express them.

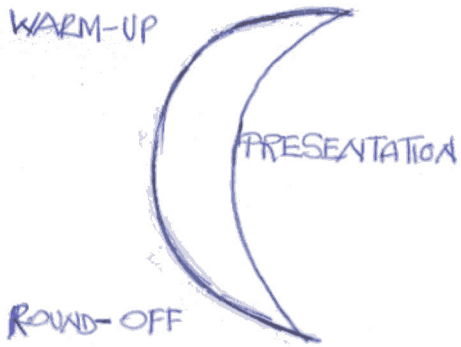




4. **Good lesson-** sensations of surprise (!) or doubt (?) calm ( ) excited or motivated ( ) gradual build up of interest ( ) the tick represents the fact that it is positive.

   Bad lesson – a cube, difficult, complicated, boring, reflects the mind at that time.

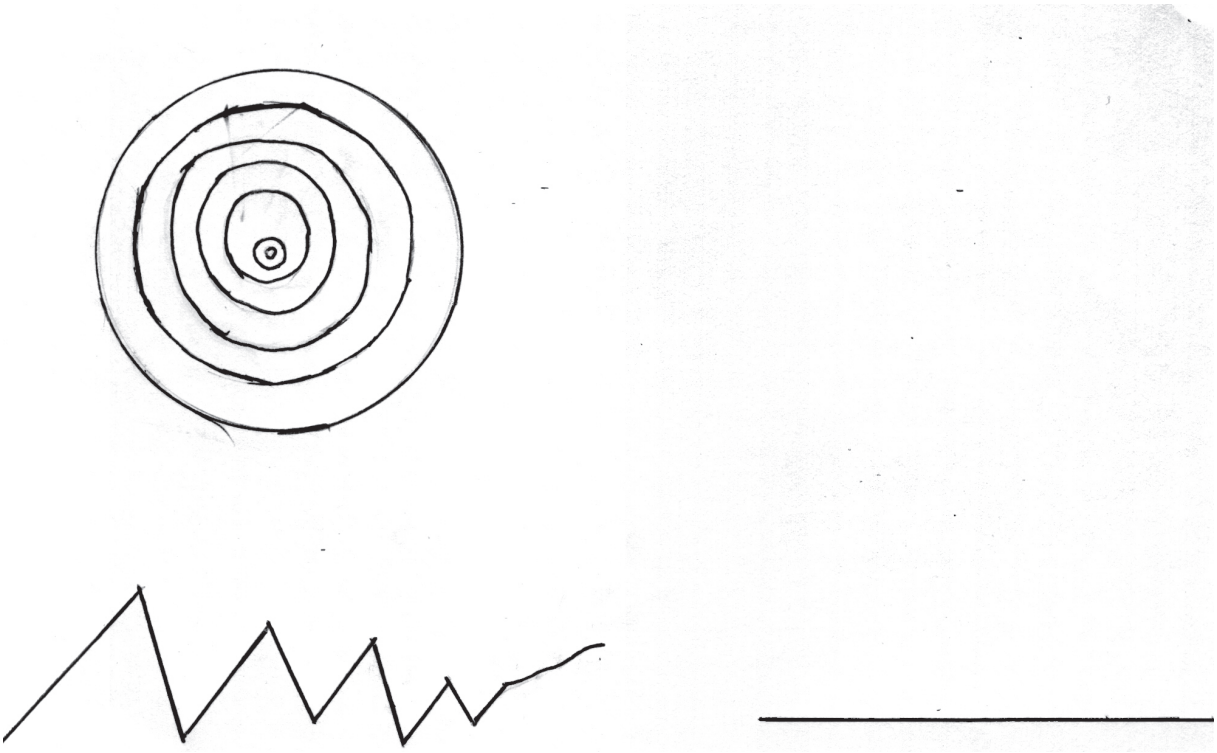
   Lessons like these are empty ones, with little meaning



5. **Good Lesson** –Smooth, a waxing, waning moon.

   Bad lesson –disconnected elements within a jagged form.

6. **Good Lesson** – The teacher is the centre of the wheel and the students can maintain direct relation with him and h is partners.



7. **Good lesson** – every circle is a small idea.
   The first the smallest point, is the smallest circle,
   and then many more ideas start. All of them are independent
   but we can relate them and turn them also into independent ones.

8. **Good lesson-** Lots of high points in the lesson, concentration is maintained.

APPENDIX 20

METAPHORS FOR LESSONS: A GOOD LESSON IS LIKE...

- A good lesson is like a dance because the teacher must be aware of the use of her / his body, movements, and of course everything must be prepared and co-ordinated as in a ballet.
- A good lesson is like a government, because there must be different ideas or conceptions, but at the end there should be a connections between those ideas, an agreement.
- A good lesson is like your mother, the best support to learn how to walk in the future.
- A good lesson is like an ice cream, because you'd like to have plenty, you enjoy yourself and you are relaxed while you are having it, and because you also choose the flavour, a good lesson is not something fixed.
- A good lesson is like a film, because you don't know exactly how it's going to end.
- A good lesson is like a film because it has an open end, students have the chance to investigate and develop those aspects they are interested in.
- A good lesson is like a medieval battle, in which the learner has a subject to conquer. It is a hard task, which cannot be performed in a single try, but in subsequent ones. A hard task, but really attractive at the same time. You conquer little territories day by day. And eventually you get to make it yours and feel really proud of yourself.
- A good lesson is like a good song. The music of the song is knowledge you acquire. The teacher is the singer and you are listening to him. If you like that music you are looking forward to listening to it again, but in any case you can't turn it off and do something else.

- A good lesson is like a symphony, because everyone plays his part, there's a certain control by the conductor, everyone plays an important role, it's hard to practice it before the final show, and then finally the public congratulates you for our perfect work.
- A good lesson is like a good song, because it has a chorus that you will remember.
- A good lesson is like a football match, because it has an exciting beginning, some calm moments, and at the end it is exciting too.
- A good lesson is like an ice cream because it is attractive to the eyes, and when we finish it, we have a good taste in our mouth.
- A good lesson is like a meal, because if you like it, you are waiting for it with a lot of interest and you like to repeat it.
- A good lesson is like nightclubbing. The teacher is the night, different classes are different places to go and you enter if the music and the atmosphere are good.
- A good lesson is like a tale, because at the end of it you have always learnt something that is new for you.
- A good lesson is like a volley ball match because you will enjoy it depending on the degree of concentration or involvement you have in it(to enjoy a lesson you have to be involved in it)

These stem sentences were finished by students on a pre-service teacher training course[28] where the idea of metaphors for lessons was being explored together with the implications for lesson planning.

[28] Enseñanza del Inglés en el aula / Classroom Management. 2001

APPENDIX 21

A NEUROBIOLOGICAL PERSPECTIVE ON AFFECT[29]

When the brain's sensory systems perceive a stimulus situation, the amygdala and the orbitofrontal cortex, based on past experience with similar stimuli, automatically appraises the stimuli for their emotional relevance and motivational significance. Both the amygdala and the orbitofrontal project to the brainstem and the hypothalamus. Nuclei in the brainstem control the autonomic system, which has two components - the sympathetic nervous system (SNS) and the parasympathetic nervous (PNS) system. The SNS prepares the body for activity by causing dilation of the pupils, as well as inhibition of salivation, digestion, and genital function. It produces an increase in respiration, heart rate, and glucose, adrenaline and noradrenaline release. It also relaxes the bladder. (Bernstein, Roy, Srull and Wilkens, 1991) The PNS calms the body and promotes its nourishment and growth. In achieving these effects the PNS causes the constriction of the pupils and stimulation of salivation, digestion and genital and gall bladder function. It also slows respiration and heart rate and contracts the bladder. Other nuclei in the brainstem influence body position, muscle control, facial expression and movement.

The hypothalamus controls the endrocrine function and influences glands such as the pituitary, thyroid, adrenal medulla, pancreas, ovaries and testes. These glands synthethise hormones and peptides which influence the body through secretion into the blood stream. The pituitary regulates growth and controls the other organs of the endrocrine system. The thyroid gland controls metabolic rate; the adrenal medulla, which is located on the kidneys controls adrenaline release; the pancreas regulates insulin and glycogen levels and sugar metabolism; the ovaries and testes influence physical development, the reproductive organs and sexual behaviour. (Bernstein, Roy, Srull and Wilkens 1991)

Based on the appraisal that the amygdala and orbitofrontal cortex make of the stimulus situation, a state is created in the body proper via the autonomic nervous

[29] Schumann. J. 1999 'A Neurobiological perspective on affect' in Arnold. J (Ed.) 1999 Affect in Language learning Cambridge University Press (p 41)

system, the endrocrine system ands the musculoskeletal system. The bodily state is an emotion which is communicated back to the brain as a feeling that helps the individual decide which mental or motor action to take with regard to the stimulus (Damasio 1994) the feeling may cause the individual to attend to the stimulus in the future to learn more. Of course the appraisal-based feeling may also have the opposite effect. It should be noted that stimulus situations which have been frequently associated with particular appraisals and bodily states may form representations in the brain itself and thus obviate the need for the generation of a bodily state. (Damasio 1994, Brothers 1995)

APPENDIX 22

CREATIVE ACTIVITIES FOR LANGUAGE CLASSROOMS

This appendix contains a collection of activities for use in foreign language classrooms. Thus they have a dual focus:

- They are all concerned with developing fluency of expression through language, encompassing work on lexical areas and a wide variety of structures and all the skills. Skills within the language classroom are usually seen as speaking, listening, reading and writing.

- They are concerned with exploring ways of thinking, feeling, seeing, listening and interpreting which encourage individuality and recognise that each individual has a wealth of personal experiences and associations to draw on which can enrich and deepen the learning experience and lead to creative outcomes.

We have used these activities in different teaching situations with different levels of students. In keeping with a key element of creative teaching, if we are flexible, open and responsive to the different ways in which any one of these activities may develop in the classroom many variations will be generated which set off an ongoing process of evolution and idea generation.

1. The way we feel
2. Changing word boundaries
3. Missing Imagery
4. Looking at paintings
5. What kind of person are you?
6. Replay your day
7. Drawing pictures
8. Listening in colour (1)

9. Listening in colour (2)
10. Paint your own picture
11. Making Links
12. How it worked for me
13. Mingling activity
14. Nostalgia

1. The way we feel

Type: warmer activity, sharing, thinking and feeling, language generator

Level: beginners and upwards

Time: 10 minutes

Materials: None

Language focus: feelings, comparison of structures in L1 and English

Procedure:

1. Ask everyone to think, in their own language, about how they feel at the beginning of the lesson.

2. Ask a few students to write, briefly, how they feel on the blackboard in their L1.

3. Ask for volunteers to translate the sentences on the board. The student/s who tackle the translation ask the student who wrote it, if it is correct, or not. If the translation is OK, the L1 version is erased from the board and the English version left on. Many points of discussion may be raised here and can be dealt with in more depth at some other stage if the activity goes on longer than anticipated. But should not be ignored or forgotten. By the end of the activity most of the sentences should be in English.

Remarks:

This activity makes a nice lead in to the English class and allows students to express and share how they feel. It provides useful information for the teacher about the students, their state of mind and so on This is an activity which can be done from time to time where students can gradually build up a collection of expressions to express how they feel.

Before the sentences are rubbed off the board spend a few minutes focusing on the stress pattern of each sentence and the pronunciation, giving students a chance to practise and make each sentence 'sound' English.

A good activity for sensitising and raising awareness of structures which are similar or different in the students' L1 and English.

Acknowledgement: This activity has been adapted from one I learnt from a student on a pre- service teacher-training course during a group work activity

2. Changing word boundaries

Type: Preconception challenger, conversation generator

Level: All levels, depending on the difficulty of the encrypted message

Time: 10 minutes or longer if follow up activities are used.

Materials: A **s**hort text where you have changed the normal word boundaries. See examples below for original and changed boundary texts

Language focus: vocabulary, spelling. **Skills:** speaking, thinking

Procedure:

1. Put the message up for students to see, they should first see the whole. They should <u>not</u> see you writing it up bit by bit. Write it on the BB and cover it with paper or on OHT or on a large sheet of paper like a poster on the wall. Ask students to see how quickly they can find the hidden message. Some students may latch on fairly quickly while others will take much longer.

2. If no one is making progress give them a clue, but don't wait too long even if some have cracked it. For example you could tell them the word boundaries have been changed, or show them the first 'real' word of the message, and they might discover it for themselves. Even when they have found the trick, there is still some work to do.

3. When quite a few students have got the message ask them to think carefully about what strategies they used to decipher the message. Collect feedback from them and let them try and describe the processes they went through. It is interesting to show how different people will have approached it in different ways. Some may have done it visually, some may have tried sounding out the words and so on.

Follow on activities:

Ask students to:

1) Try reading the message aloud with the changed boundaries. How does it sound? Does it remind them of any other language? Do they like the sounds?

2) Look for any 'real' words or acronyms that have been formed by chance despite changed boundaries

3) Look for any words from another language, maybe their own, that have been formed by chance.

4) Look for any 'new' words they like the look of and suggest a meaning for them.

5) Get students to devise their own changed word boundary text to give to other students or to prepare as a short activity for the whole class for another lesson

6) Get students to devise other ways of encrypting messages, to work on as a class or in small groups.

Remarks: Even though once you have done this activity students will obviously know the trick, surprisingly they still seem to enjoy the challenge of finding the original message, so you can do it again from time to time. The text can of course be taken from any source or could be specially written for the class you are working with , as in our second example.

Here are a couple of changed boundary texts and their solutions

Text 1
NOTICE

AL HOU R INHAR M(LES SMIRT)
HA ND FUNLET FRIENDS –
HIPRE IGN BE JUSTAN DK
INDAN DEVIL SPEAKOF NO NE

Solution. *Here stop and spend a social hour in harmless mirth and fun. Let friendship reign, be just and kind and evil speak of no one*

Text 2

IWO NDERI FYO UHA VERE MEM
BEREDY OUR LE ARNING SJOUR
NAL SHAND SUP E VER YON EWHOH
ASMA DEAST ARTH OWEV ERBFI EF!

Solution*: I wonder if you have remembered your learning journals. Hands up everyone who has made a start, however brief!*

Acknowledgements. This idea was developed from an English pub sign written in this way in Crystal's *Encyclopaedia of Language.* 1997.

3. Missing Imagery

Type: Awareness raising, conversation generator

Level: Lower Intermediate upward

Time: Depending on the follow up activities

Language Focus: Lexical areas and structures related to the selected text

Skills: Reading, speaking, writing if follow up activities are done.

Materials: Copies of a text, for example,

> A newspaper is better than a magazine. A seashore is a better place than a street. At first it is better to run than walk. You may have to try several times. It takes some skill but it's easy to learn. Even young children can have fun. Once you're successful, complications are minimal. Birds seldom get too close. Too many people doing the same thing, however, can cause problems. You need lots of room. Beware of rain, it ruins everything. If there are no complications it can be very peaceful. A rock will serve as an anchor. If things break loose from it, you will not get a second chance

Procedure:

1. Pre teach any vocabulary you think your students may not know and which could prevent them from getting the gist of the text.
2. Have the students read the text once quietly by themselves telling them not to worry if the meaning is not immediately clear.
3. Ask them what they think the text is about. Is it difficult to understand? Why?
4. Now get them to read the text again, this time visualising each sentence in terms of flying a kite. Ask them what, if anything has changed.

5. Get students to work in pairs or groups to discuss their reactions. Then with all the class, get their responses. Try to elicit that putting the text into a context with the word 'kite' seems to illuminate and change the way we 'see' the text. Explain any parts that are still elusive and difficult to understand.

6. Ask students if they can think of other examples of passages of language which are unclear in their lives. For example overheard conversations, complicated instructions etc.

Follow on activities: Students write their own short texts based on the example, which might be about a hobby or special interest of theirs. This could be done as an out of class activity, giving them a chance to look for vocabulary they need.

Later in class, students written texts can be exchanged with others so as to guess the context and to add their own visual imagery to.

Students can discuss the ways they visualised the text, which particular words gave them clues, led them on false tracks, etc.

Acknowledgement.–This activity was inspired by an idea in *Develop Your Creative Skills* 1993 A Dorling Kindersley Book DK Direct Limited, London.

4. Looking at paintings

Type: Awareness raising, preconception challengers, conversation builders

Level: Lower intermediate upward

Time: 15 minutes longer with follow up activities

Language focus: endless possibilities here. For example structures like: it makes me feel + adjective, comparatives**. Skills**: speaking and listening

Materials: Reproductions of art work, paintings

Procedure: Provide a selection of reasonably sized pictures for students, you might put them up on the walls, let them walk around to find the one they like best. Give students a set of questions to consider once they have chosen a picture to focus on. For example: How do the colours in the picture affect your mood? Do you concentrate more on certain colours than on others? Do the tones of the colours make you feel lighter or darker inside? Does the painting change your feelings emotions in any way? Positively? Negatively? Note down your responses. Students discuss their

responses in pairs or small groups. You could extend the exchange process further by getting students to share their responses with other groups.

Follow on activities.

Although this activity could be done using with reproductions of art work, a wonderful way of generating interest, language and much more direct involvement, would be to arrange a visit to a gallery. Many activities could be organised from such a visit, but the one described above could be done and with much more effect by actually seeing a picture. The effect is much more powerful and immediate and will provoke much stronger reactions. One could arrange to meet a group of interested students in a local gallery.

Acknowledgements: This activity has been adapted from an idea in *Principles of Art Therapies,* by Daniel Brown Thorsons 1997

5. What kind of person are you?

Type: Awareness raiser of self and others, conversation generator

Time: 20 minutes

Level: elementary and upward.

Materials: A collection of questions like these, photocopied for students;

Are you a coffee person or a 'cola cao' person?

Are you a morning person or an evening person?

Are you an earth person or a fire person?

Are you a mountain person or a beach person?

Are you a town person or a country person?

Are you an indoor person or an outdoor person?

Are you a garden person or a forest person?

Are you a 'flat' person or a 'house' person?

Are you a straight-line person or a loops and curves person?

Are you a sight person or a sound person?

Are you a do it now person or a leave it till later person?

Procedure:

1. Give students a copy of the questions. Get them to work individually to answer them. At this stage don't clarify areas they aren't sure of. For example, students often ask what does a 'fire' or an 'earth' person mean? Instead, encourage them to interpret the question in any way they choose.

2. When they have answered the questions they exchange and compare their answers with a partner. Then they get together with another pair of students and repeat the process. The teacher should be moving around the classroom while this is going on to get an idea of how the activity is going.

3. Follow this with a whole class session to give the opportunity for people to hear some of the things which went on the group discussions. You can get someone from each group to report back on something interesting that they heard in their group. This is also a good time to share the different ways in which students interpreted the 'either or' questions. Most of them will throw up different interpretations. Some that always raise questions and different interpretations are 'fire or earth', 'straight line' or 'loops and curves'. 'Sight or sounds' can lead into discussions related to learning styles.

Remarks: Change, adapt and add questions to suit the people and the place you are working in. For example, while in some places the main hot drinks might be coffee or tea, in Spain a popular chocolate breakfast drink is 'cola-cao'. In Spain most people live in flats, seemingly contentedly, but when given a chance to talk many say they'd prefer to live in house. Some of the questions look indirectly into ways of organising ourselves, our lives, our learning styles and so on. The thinking and the exchange of ideas and interpretations is an important element of this activity as is thinking about ourselves in ways we maybe had not thought of before and putting these ideas into words. We have used this activity in many different teaching situations and have found it especially interesting on pre service teacher training courses for getting people to think about what kind of person they are and how this might influence the way they teach.. It can provide insights into preferred ways of working as well as being a fruitful activity to use in language classrooms

Variations: In groups who know each fairly well give them the questions to answer for a partner. They then give the answers back and see if those they answered for agree or disagree with their partners' selections. Then move on to sharing with another pair of students and continue as above

Acknowledgements. This is one of those activities we have used in different variations and on different occasions but the origin of which we are no longer to able to track down.

6. Replay your day

Type: Awareness raising. Conversation generator. Juxtaposition of internal images and music.

Level: Elementary upward.

Time: 30 minutes

Material: a tape with a compilation of short extracts of different types of music

Procedure:

1. Use a short relaxation activity or state changing activity (see appendix 8) before starting this activity.

2. Play the tape and ask students to jot down anything the snippets of music suggest to them, for example; images, memories, people, activities, moods, feelings, times of day, places, colours, seasons, etc. Instead of writing students could draw some of their reactions, they don't need to be good at drawing.

3. If the class is in the evening get students to think back over their day. If not the previous day / the weekend before, get them to go back in their minds to first thing in the morning and working up to the present and to replay their day as if it were a video in their heads. The teacher can help them with prompts like; where were you? What were you doing? Who were you with? How did you feel? What could you see, hear, smell?

   Places; at home, at work, attending classes, outside, in a bar.Things that made an impression on you (negative or positive) Something you learnt, etc. Give them a few minutes to think quietly and replay the highlights of their day in their minds

4. Then get students to go back to their replay of the day and look at the things jotted down in response to the music. Are there any connections, or can they make any links between the music and their day replay?

5. Play the music again, allowing the links between the music and the images to resonate.

6. Students share their experiences with someone else.

7. Get some feedback on their responses to the activity in general. What kind of things did people remember? Were any pieces of music particularly evocative?

Why? Was your partner's experience similar or different to yours? How? In what way? Be specific.

Variations: Limit the elements to 'replay' to:

People you met today

How you felt at different times of day

Things you did at different times of day

Remarks: This activity is based on the idea of juxtaposing mental imagery and memories from the day with the images generated by the music. Encourage students to freely associate and search for even vague links. The first part allows for personal reflective work. The sharing part provides an opportunity to find out how others responded and usually generates lots of animated talking.

The tape should include music of very different types. One compilation we have used included the following:

Artist	**Track**
Ry Cooder	Paris,Texas
Craig Chaquico	Sweet talk
Kiri Te Kanawa	*World in Union*
Chris de Burgh	Missing You
Mark Knopfler	Je suis desolée
La Capella Reial de Cataluyna/ Jordi Savall	Cant de la Sibil
Joshua Redman	Hide and Seek
Jordi Savall	El Cancionero de Medenacelli
Lisa Stanfield	Change
Craig Chaquico	Streetwise

Variations: Students can prepare short compilations of music to play to the class to do similar activities with.

Acknowledgements: This is variation of an activity we presented in a creativity workshop during the *II Jornadas de Estudios Ingleses* at the University of Jaén, 1996.

7. Drawing pictures

Type: awareness raising, conversation generator

Level: All levels

Time: 30 minutes

Language Focus: There are endless possibilities for structures of all kinds.

Materials: A very simple picture outline of, for example a landscape. It only needs a few lines to represent mountains, a few trees, perhaps a river a lake and a small house But try to be imaginative and break away from landscapes for more unpredictable outcomes.

Procedure:

1. Students work in pairs and take it in turns to add something to the initial picture. They can respond to something the other person has drawn and / or just add anything they want to the picture. Adding people is a good idea, even if students are not happy about drawing people, they can draw stick people. In fact it doesn't matter at all about the drawing as the drawing itself can provoke discussion and speculation

2. After five minutes or so they can stop drawing. One of the pair starts to invent a story orally, based on the picture. Each partner should contribute a sentence or two and then the other contributes and so on. Questions can be asked. More details can be added to the picture during the storytelling process if they wish

Follow on: Pairs can reform and one student retells the story while the other listens and asks questions. Or the story can be written up. Present continuous could be practised, but by asking students to write for example ' *Last year'* on the picture, action can be shifted into the past and so on The story could be revised, polished and written up. A simple story outline can be expanded by adding adjectives

Remarks:

Drawing provides good opportunities for right brain type thinking and also provides excellent opportunities for language work and vocabulary enrichment.

Starting with the same framework means that later all the drawings can be compared to see how they evolved.

T*his activity can be done in a class with students working in pairs. It is also an ideal activity to do in one- to- one teaching situations.*

Although working with pen or pencil is fine, the drawings may develop differently if colours are available and used.

This is a good activity for revision and consolidation of previously taught language, but also good for introducing new language linked to the objects, people and events already conceptualised in the picture.

This is an activity which can be done more than once. Students of all ages and levels enjoy it and they will get more confident and adventurous the more they do the activity. Once they have got the idea, encourage fantasy and imagination.

This is an activity which can be done with students of all levels of English, inspite of a sometimes held belief that activities which involve drawing are only suitable for young people and children. On the contrary when this activity is done with adults, the results are much more interesting because of the different and richer experiences each person brings with them.

Variations: If pen or pencil is used, get students to imagine what colour things in the picture would be, others challenge if they don't agree. The story could be told from the viewpoint of a character or characters in the picture. It could take the form of a dialogue and lead to a role-play. A simple story outline can be expanded by adding adjectives and adverbs. The creative possibilities are endless.

8. Listening in colour (1)

Type: An activity to develop sensory awareness and explore the overlap of sensory responses.

Language focus: language of colour and feelings.

Level: Lower intermediate and upward

Time: 20 minutes

Materials: Music with voice and lyrics. A copy of the words of the song on OHT or handout.

Procedure:

1. Let students listen to a song where colour words appear in the lyrics, understanding the words should not obstruct the activity so depending on the

level it may be better if students are already familiar with the words of the song, or if key words are pre taught. When they have listened they follow the words and try and really focus on the colours mentioned in the song trying to visualise, 'seeing' and 'feeling ' them in all their intensity and not just focusing on the colour words. Listening a second time to the song they try to let these colour images surface again.

2. After listening students can discuss the colour images, i.e. the combination of the words plus their experienced responses: those they liked best, those which were most powerful, those which were easiest or most difficult to conjure up, their favourite colours and least liked colours in real life, and so on.

Remarks

Alfred Noyes' poem 'The Highwayman' uses colour powerfully and although it is long, short sections could be used even though this is a story poem. Loreena McKennit (CD 'The Book of Secrets') has put this poem to music changing not a single word and enunciating very clearly. Trying to really visualise, feel and experience the colours should bring the words to life. With students unaccustomed to visualising activities it would be useful to do some kind of short relaxation activity before which involves visualisation for example"Breathing colour' or ' The Cloud' (see appendices 5.2. & 5.7). Keep an open mind as to the images in the poem which the students respond to. It may be that certain images are more potent than others and students could say which images are most vivid for them and say why. As the song is long in a following lesson students could predict in groups how they think the poem could end. The idea is not to come up with the ending of the original author, but to use their imaginations drawing on previous imagery, and then to listen and compare the endings.

'The Highwayman' - A poem by Alfred Noyes, 1880- 1959
(The first six verses)
The wind was a torrent of darkness among the gusty trees,
The moon was a ghostly galleon tossed upon cloudy seas,
The road was a ribbon of moonlight over the purple moor,
And the highwayman came riding-
Riding- riding-
The highwayman came riding, up to the old inn door.

He'd a French cocked hat on his forehead, a bunch of lace at his chin,
A coat of claret velvet, and breeches of brown doe skin;
They fitted with never a wrinkle: his boots were up to the thigh!

And he road with jewelled twinkle,
His pistol butts a- twinkle,
His rapier hilt a– twinkle, under the jewelled sky.

Over the cobbles he clattered and clashed in the dark inn yard,
And he tapped with his whip on the shutters, but all was locked and barred;
He whistled a tune to the window, and who should be waiting there
But the landlord's daughter,
Bess, the landlord's daughter
Plaiting a dark red love red knot into her long black hair

And dark in the old inn yard a stable wicket creaked
Where Tim the ostler listened; his face was white and peaked;
His eyes were hollows of madness, his hair like mouldy hay,
But he loved the landlord's daughter,
The landlord's red-lipped daughter;
Dumb as a dog he listened, and he heard the robber say-

'One kiss my bonny sweetheart, I'm after a prize tonight,
But I shall be back with the yellow gold before the morning light;
Yet, if they press me sharply, and harry me through the day,
Then look for me by moonlight,
Watch for me by moonlight,
I'll come to thee by moonlight, though hell should bar the way'.

He rose upright in the stirrups; he scarce could reach her hand,
But she loosened her hair in the casement! His face burnt like a brand
As the black cascade of perfume came, tumbling over his breast
And he kissed its waves in the moonlight,
(Oh sweet black waves in the moonlight!)
Then he tugged at his rein in the moonlight and galloped away to the west.

9. Listening in colour (2)

Type: Exploring imagery through colour and sound

Level: Intermediate upwards

Language Focus: Language of colour, feelings and perceptions

Time: 50 minutes with a follow up activity

Materials: A piece of instrumental music or music which uses voices but no words

Procedure:

This is closely linked with the previous activity **Listening in Colour 1** and would ideally be used as extension or follow on to it.

1. Play some music for students to listen to. As they listen tell them try to 'see' the music in colour, and conjure up the colours it suggests to them. Sometimes it may be easier to decide what colour the music does *not* suggest. They can try a colour and if it doesn't work, find another. They could try visualising the piece of music as a series of colours, a colour chord, a tapestry, a piece of fabric, an abstract or a figurative painting. After listening to the music they can share their ideas with the class.

Loreena McKennit follows 'The Highwayman' in 'Book of Secrets' with an instrumental piece 'La Serenissima' which works well for this activity.

Follow on activities:

There are many possibilities:

- Colour chord poems, take a colour word and write a poem taking each letter of the word as a starting point for a line of the poem or simply one word on one line
- Write a haiku around the theme of a colour
- Short descriptive passages based on the colours they chose taken into a different imaginary context.
- Discussions about colours students could live with, perhaps as a colour scheme for a room, as the colour scheme for an outfit together with the occasion it would be suitable for. The colours of a meal, would it be possible? Appealing or not?
- This type of music can also be used to allow personal imagery of any type to emerge to create small personal 'cameos' which can be shared and compared.

It would be fun to give students an opportunity for playing with coloured paper and making a simple collage to expressing their ideas visually. Then get them to stick them up on the walls, with blu-tak, and then giving time for students to move

around the classroom and see what others have done. Even within the context of a language classroom there is a place for personal expression of this kind, it is another form of language and can generate real opportunities for speaking and listening.

10. Paint your own picture

Type: Imagination, visualisation, raising awareness of others imagery

Level: Elementary upward

Language focus: Descriptions. Wide choice of lexical areas and structures Skills: listening, speaking,

Materials: A postcard, photo or reproduction and an outline description either written down or in your head. Some instrumental music which encourages imaginative responses but which is not too obvious or well known.

Procedure:

1. Explain to students that you are going to read out some sentences describing a picture, but that you are not going to give them all the information. They are going to personalise the picture for themselves. You will pause frequently and when you do they are to conjure up their own images triggered off by the words they hear and to jot down what they "see". Allow time for them to write a few words, single words, feelings, short sentences. As you read the text keep the tone of your voice calm, reflective, gentle, perhaps ending with rising tones where you want students to add their own images. Leave enough time for the images and words to come.

2. When you have read or spoken the unfinished text once, replay the music and reread your words pausing at the same places so that students can recreate and fit their own images to your words.

3. Read the original description once more with music or just play the music telling students to try to sharpen their images, focusing for example on colour, feelings, moods, time of day, perfumes, sensations.

4. Ask students to think where they were in relation to the picture. Questions like; were you a part of the picture? In the foreground, in the middle, in the distance? On the outside looking in? Above the scene? As in an ariel view or a dream?

5. Students work with a partner and tell each other about their "pictures" and their position in relation to it.

6. Vocabulary can be fed in when necessary as you move around the classroom.

7. After having exchanged ideas with partners they have opened up and are often quite happy to share their images with the rest of the class, this gives others a chance to hear what others have said. This is a good time to gather together new vocabulary generated by the activity.

Follow up activities

- Write a short descriptive passage of the picture with students' images added
- Write a short story triggered off by the picture
- Write a short poem or haiku triggered by an image
- Draw a picture of some the scene or some aspect of it
- Discussions about what type of stimuli make people feel creative, the part our memory plays in activities such as these, moods on different days, how stereotypes from our collective unconscious tend to surface.

11. Making links

Type: awareness raising of different responses people make and drawing on personal imagery and associations

Level: Lower intermediate and upward

Time: 15 minutes or more depending on the follow up activities chosen

Materials: A short, but evocative text

Procedure:

1. Students work individually, reading silently and selecting 10 words or phrases which are fruitful in producing personal associations or links. They then choose the most suggestive for them and work on those words jotting down ideas which are suggested by them. Only a few minutes are needed for this. It would be useful for students to use simple mindmapping techniques here. (See Mindmapping, Appendix 7). The associated words could be written down both in English and in the learners' L1 if necessary. Or they could be drawn.

Follow up:

Working in small groups students compare the results of their brain-storming activities

Feedback variations

1. Group feedback can be shared orally with the whole class and vocabulary written on the blackboard. Words could be classified according to various criteria, for example:

   Positive / negative qualities, leaving a space for overlapping areas where different interpretations happen.

   Words they like / don't like

2. Instead of feedback coming orally from groups, individual or group mindmaps could be put up on the walls and students can walk around looking at them and noting down interesting things. Oral feedback can follow when students are back in their places.

3. Group mindmaps could be written up on OHT and shown to rest of the class

4. Various types of creative writing could come out of an exercise like this including short poems or haiku.

Remarks: It helps the process if gentle music is played during the brainstorming stage. Students unused to this type of exercise may need a little nudging and this type of activity should be done on different occasions as once they have the idea, associations may surface more readily.

Two sample texts:

A thousand feet or so above the village one reached the main irrigation channel, which drew its water from a torrent far up in the mountains, and at once the trees ceased and a wilderness of grey rock, and pincushion plants began. It was still some three hours climb to the pass that gave onto the plateau on the other side. But if one looked behind one, what a view! The wrinkled waves of red and yellow and lilac mountains below had been spread out flat in a carpet that reached to the sea. The sound of running water could no longer be heard, the noises of the village had ceased. There was complete silence. (Brennan.G. 1957 *South from Granada.* Hamish Hamilton (p15)

The Mole had been working very hard all the morning, spring cleaning his little home. First with brooms, then with dusters, then on ladders and steps and chairs, with a brush and a pail of whitewash; till he had dust in his eyes, and splashed of white wash all over his black fur, and an aching back and weary arms. Spring was moving in the air above and in the earth below and around him, penetrating even his dark and lowly little house with its spirit. (Graham.K 1950 *The Wind in the Willows* Metheun & Co Ltd (p1)

12. How it worked for me

Type: Reflection on learning processes, awareness raising of their own and others learning styles

Level: Lower intermediate upward

Time: 10 minutes

Materials: none

Procedure:

1. Remind students of activities like "painting pictures" and "making links". Ask them to think about their experiences in the two activities where a) they had to listen and respond to words spoken aloud and b) where they had to read a text silently and respond to it. Which did they find more interesting, easier to create images to, more fun, more relaxing, more challenging more thought provoking, more 'them'? Why? Try to get them to really think about the reasons why.

2. Get students to think about the questions individually for a minute or two then to get into groups and share and compare their answers. The group findings could be shared with the rest of the class in various ways. Some things which might come out are comments like:

   I found it easier to concentrate when I was reading silently to myself.

   The voice of the teacher helped me to visualise images.

   I find my imagination works better when I work individually.

   When I was reading silently the music affected me more.

Remarks: This kind of activity is a way of collecting feedback from students, an area often overlooked but vital for creative teaching. It can provide some insights

into the different 'intelligences' of our students, for example some may be highly visual, but are never given a chance to work in this way, others may respond more to auditory input and so on. At the same time there is plenty of language practice involved. Those with higher levels of English can express their observations as they wish, lower levels could be given stem sentences to finish off in their own way.

13. Mingling activity

Type: short activity for getting students into pairs, with thought provoking messages

Level: any depending on language used

Time: 5-10 minutes at beginning of lesson and a few minutes at the end.

Materials A collection of sentences to be split into two, mixed up and given out.

Procedure:

1. Ask students to get up and pick up a slip of paper and then to move around the classroom to try and find their other half only by speaking the word/s on their slip of paper.

2. When everyone has found their other half get students into a big circle and ask them to read out their sentences as well as they can.

3. They can then sit down next to their new partner.

Remarks: The sentences can be used as an introduction to a topic or theme or as a revision or reactivation activity

At the end of the lesson or at some other point you can ask students which ones they remember, which ones they like best.

In another lesson you can get students to write their own sentences based on a theme for example: good advice, or one healthy thing, 'I did today' / 'I will do tomorrow'/ 'I wish I had done today'. These could be use in a similar way to the original split sentences.

One collection of sentences related to physical and mental wellbeing

LOOK BEYOND / THE SURFACE
USE YOUR/ IMAGINATION

DRINK/ LOTS OF WATER
KEEP/ SMILING
BALANCE/ WORK AND PLAY
LOOK ON/ THE BRIGHT SIDE
TAKE UP/A NEW SPORT
GET/ ENOUGH SLEEP
THINK OF AT LEAST/ONE NICE THING THAT HAS HAPPENED TO YOU TODAY
BREATHE/ DEEPLY
GET LOTS/ OF FRESH AIR
BELIEVE / YOU CAN DO IT
WALK INSTEAD/ OF TAKING THE BUS
EAT LOTS OF/ FRESH VEGETABLES
TAKE /REGULAR EXERCISE
DO SOMETHING/ CRAZY FROM TIME TO ITME
GIVE UP/ SMOKING

14. Nostalgia

Type: Sharing. Awareness raiser. State changer

Level: Elementary and above depending on the text used

Time: 10-15 minutes

Material: A copy of a short poem, preferably one for each student although if it is short it can be written on the board or on OHT. The example we have used is a translation of a Zen poem.

Lines

You have come from my old country

Tell me what has happened there! -

Was the plum, when you passed by my silken window,

Opening its first cold blossoms?

Wang Wei (710-761)

Procedure:

1. Tell students you are going to read aloud a very short poem. Put some suitable music on gently in the background to create a pleasant and relaxing atmosphere

if you like. Read it slowly and as well as you can. You might want to tell students that although this type of Zen poem should be experienced as a whole, allowing it to resonate for the individual personally, without resorting to too much analysis, you're going to spend a little time exploring the poem to 'get into' the imagination and memory of the poet and perhaps to understand a little of what made him write the poem.

2. Give them some questions to direct their thinking and be prepared to help out quite a bit with your own ideas if they get stuck. Make it clear that the ideas you may suggest are just some possible ways of looking at the poem and that there are many other possible interpretations.

   Possible questions:

   What is the 'plum'?

   What do you think the poet means by the words 'my silken window'?

   What are 'blossoms' and why 'cold'?

   Why do you think he chose these images?

   What feelings do you think the poet is expressing?

3. Allow students individual thinking time and maybe time to exchange their ideas. Get feedback from the students and perhaps put their ideas up on the blackboard

4. Get students to consider the following:

   '*If you were far away from home, in a different land, far from the things familiar to you, what would you write about in the third and fourth lines of this poem?'*

5. When you've given them a little time to think you might like to get them to actually write their own last two lines to the poem starting with 'Was there' or 'Were there'. You can tell them Zen poems are often concerned with nature, but if some other images come to their minds that's OK starting with, 'Was' or 'Were' the …

   Allow a little quiet time for individual thought and for writing down ideas.

6. Take a few minutes to exchange and share their ideas, or what they wrote as their third and fourth lines to the poem with the rest of the group.

Remarks: Other sources of poems can be used, but Zen poems with their deceptively simple messages which touch the emotions can be fruitful for this kind of activity**.**

The above poem comes from *Zen Poems* 1999, Selected and edited by P. Harris. Everyman's Library Pocket Books**.**

Language Focus: listening, speaking, writing

Grammar / vocabulary: Varied language will be generated including vocabulary dealing with feelings of nostalgia, melancholy, homesickness, missing etc**.**

Variations:

Links: see other activities using short poems (pending)

Follow on Activities:

Remarks: I find that many of my students have never met short, oriental poems like haiku, or Zen poetry. The brevity of Haiku, and the seeming simplicity of poems coming from Zen philosophies allow us to concentrate on the images the poet creates and allows us to create in turn, our own images, and associations.

Once students are used to these type of poems, it would be nice to use them as short activities, for example, simply reading them aloud and letting the words resonate for them.

Short poems are also invaluable for work on elements of spoken English, like pronunciation, linking, intonation and general use of voice for expression. Students working individually or in pairs could prepare the poem for reading aloud in the way they choose.

Acknowledgement: The idea for this activity was suggested to me by reading poems from a collection of Zen poetry.

Zen Poems 1999 selected and edited by Peter Harris. Everyman's Library. Pocket Poets

APPENDIX 23

THE POLITICS OF EDUCATION[30]: THE TRADITIONAL MODE

1. The teacher is the possessor of knowledge, the student the recipient. (Difference in status between teacher and student)

2. The lecture, the textbook, or some other means of verbal intellectual instruction are the major methods of getting knowledge into the recipient. The examination measures the extent to which the student has received it. These criteria are the central elements of this kind of education.

3. The teacher is the possessor of power, the student the one who obeys (control is exercised downwards, administrator controls the teacher)

4. Rule by authority is the accepted policy "Don't smile till Christmas", get control first. The authority figure.

5. Trust is at a minimum. Most notable is the teacher's mistrust of the student. The student cannot be expected to work satisfactorily without the constant supervision of the teacher. The subjects (The students) are best governed by being kept in a state of fear that increases as we move up through education systems, because there is more to lose?

6. The subjects are best governed by being kept in an intermittent or constant state of fear.

7. Democracy and its values are ignored and scorned in practice. Students do not participate in choosing the goals, the curriculum, things are chosen for the students. There is a striking contrast between the teaching and teaching about the virtues of democracy

8. There is no place for the whole person in the educational system, only a place for the intellect. (Young children bursting with curiosity and energy, which is

[30] Rogers. C & H.J. Freiberg 1994 Freedom to Learn (3rd. Edition) Merrill, Prentice Hall (Pp209 – 210)

> stifled and curbed, in secondary schools the one overriding interest of all students is sex and the emotional and physical relationships between the sexes) Teachers ignore them, there is little place for the emotions, and in colleges it is even more extreme, only the rational mind is welcomed.

Thus the traditional mode is a top- down process, decisions are made at the top. It has largely been accepted as the inevitable system and puts it at the polar opposite of the person - centred mode of teaching.

The person – centred mode of teaching has a precondition, through which,

> a leader or a person who is perceived as an authority figure in the situation is sufficiently secure within herself and in relationships with others to experience an essential trust in the capacity of others to think for themselves, to learn for themselves. She regards human beings as trustworthy organisms. (210)

If this precondition exists, then teachers move towards becoming true facilitators of learning.

APPENDIX 24

IN PRAISE OF MUSIC: A POEM

The poem which follows was written by a participant attending a course of Basic English[31] with a duration of 40 hours which was carried out over an intensive period of five days at the beginning of December 2000 for employees of the County Council of Jaén. The course was, as we have mentioned, an intensive one and it was necessary to plan input and activities carefully so that participants' interest and motivation was maintained. This involved apart from providing variety and change of pace, the need to build in opportunities for relaxation and consolidation. Time must be allowed on all courses for students to assimilate and digest new material and this applies even more so in intensive courses where there may be a tendency, in view of the duration and concentration of the course to pack in as much new input as possible. Generally this is a mistake, for without periods of reflection and the provision of pools of relaxation, input may be poorly assimilated and retained. Only the students involved can be responsible for their own learning but teachers can help provide conducive learning atmospheres, which help to maximise the understanding and retention of new material.

We have always considered music to be a highly valuable resource in classrooms. It can be played to fulfil a variety of purposes, for example; during quiet activities, to make a break, to change state between different activities, to welcome students back to the classroom after a break, to provide a gentle background noise for self conscious students to talk against which is often less challenging than speaking in a silent classroom, to provide short periods of relaxation within lesson time, and of course to be enjoyed. Instrumental music perhaps even more than music with lyrics allows each individual to respond in highly individual ways, drawing on their personal memories and associations.

On this course we played a variety of music for just the reasons mentioned above. On the final morning of the course a student presented us with this poem, which

[31] (Curso Inglés Basico; Atención al Publico) The course was organised by the Diputación Provincial de Jaén and held in the Hospital San Juan de Diós in Jaén. Course taught by E.Adams & H. Brewer

had been written as a response to the power of music, a spontaneous and creative response to the music which had been played during the course. Unlike other occasions when songs were used and the language and vocabulary studied or exploited in some way, the instrumental music we used during the course was not drawn attention in any overt way.

Llueve la musica sobre mi mente
Melodea alrededor de mis intereses
Como sonámbula estirpe de duendes
Acampa en mis sienes.

En mi se retiene y se fuga hacia lo inerte
deshaciendose en notas descalabradas
que sucumben ante su condición efímera
retomando su propia muerte.

La memoria las recobra para atesorar y materializar su suerte
decorando espacios interiores
germinando más allá de la muerte.

Transido de su eternidad
camino de modo diferente,
ella viaja donde alguien siente y consiente.

Mis adentros se mueven
en la dirección de la sutil melodía
que me enriquece
experimentando el éxtasis que sobreviene.

Soñar la música, inventarla
sentir siempre esa sinfonia
que pretende estampar su huella en nuestra alma,
vivir impregnado de su olor y color, e instalarla

B.

APPENDIX 25

BRAIN THEORIES

Split brain theories

In the 1960s neuropsychologist Roger Sperry and his colleagues at the California Institute of Technology demonstrated that each cerebral hemisphere is specialised along certain lines. His research involved epileptic patients who had undergone a drastic surgical operation, the severing of the corpus callosum, a bridge of neural fibres connecting the two cerebral hemispheres, in order to control their epilepsy. The patients no longer suffered the seizures, since the operation prevented seizure discharges from crossing from one hemisphere to the other. But because the corpus callosum had been cut, each cerebral hemisphere of these "split brain" patients operated in comparative isolation from the other. From these starting points Sperry and his colleagues carried out a series of innovative experiments aimed at finding out what each hemisphere does best and discovered that both brain hemispheres are involved in higher cognitive functioning, with each half of the brain specialised in complementary fashion for different modes of thinking both of which are highly complex.

It had been previously known that language and language related capabilities were based in the left hemisphere in the majority of individuals and for this reason it had been thought of and indeed referred to as the 'dominant', 'leading' or 'major' hemisphere, and the right, the 'subordinate' or 'minor' hemisphere carrying with it the belief that it was less advanced and less evolved than the left hemisphere.

The work of Sperry, Gazzaniga and others in the field showed that the left hemisphere excels at reading, writing, and processing information in a sequential manner. The right hemisphere is specialised for recognising faces, drawing or reading maps, solving puzzles and expressing and perceiving the emotional nuances, accompanying verbal and facial expressions. When the corpus callosum is intact as in any normal brain the two functionally asymmetric hemispheres work together in unity, and the communication between the hemispheres melds or reconciles two perceptions thus

preserving our sense of being one unified being Split brain research is thus compatible with both locationalist and holistic points of view.

Two modes of information processing

In addition to identifying in general terms the functions of the brain, scientists examined the ways in which the two hemispheres process information. Evidence accumulated to show that the left hemisphere of the brain is verbal and analytic, while the right brain is non-verbal and global. Levy (1968) showed that the mode of processing of the right brain is rapid, complex, whole- pattern, spatial and perceptual, processing that is not only different from but comparable in complexity to the left brain's verbal, analytical mode. She also found something that many people may have experienced for themselves without necessarily being aware of, which is that the left and right brains seem at times to positively work against each other. As Edwards (1999) puts it, we each have a double brain with two ways of knowing. As each of our hemispheres gathers the same sensory input, each half of our brain handles the input in different ways. The task may be divided between the hemispheres, each handling the part best suited to its style. Or one hemisphere, usually the dominant left, will take over and inhibit the other half. The left hemisphere analyses, abstracts, counts, marks time, plans step by step procedures, verbalises and makes statements based on logic.

The second way of knowing, the right hemisphere mode, allows us to "see" things that may be imaginary, existing only in the mind's eye. In the visual mode we see how things exist in space and how the parts go together to make up a whole. We understand metaphors, we dream, we draw on the emotions, we create new combinations of ideas all vital for creative processes.

Recognising how the left brain hemisphere tends to rationalise and structure thought at the expense of the more oceanic ways of functioning of the right brain and to the detriment of creative processes, has led various writers to find ways of consciously tapping into the resources of the right brain. See for example Brande 1996, Edwards 1999, and Zdenek 1983. What comes out is later organised and structured by the left brain, but the too early intervention of left brain processes can thwart, divert and switch off creative processes.

One means of allowing the visual right brain to work while temporarily relaxing the intervention of the left hemisphere is demonstrated through the use of mandalas. Gazing at a mandala, where the focusing is on a simple pattern, will produce slow

alpha brain waves. While the left brain cannot cope with spatial relationships it will try to retain control of the brain by analysing the pattern in terms of squares, circles and crosses. To prevent this from happening one should concentrate on the centre of the pattern, trying to see as much as possible of the peripheral design without analysing it. "In effect the mandala is being used to outsmart the left hemisphere so that you can shift to the right- brain mode" (Zdenek 1983:28).

Edwards (1999) uses techniques in drawing which foil the left brain's attempts to analyse, explain and name and which result in blocking the ability to purely see what is there. They overwhelmingly demonstrate that drawing with the right brain is, in the end, a more accurate reflection of the perceived reality. Although with a focus on drawing the implications of her ideas can be applied to all areas of life and learning and point to ways to redress the imbalance in favour of left brain processing and at the expense of right.

Using the structure of his book to illustrate the characteristics of the right brain mode's in the artistic imagination Ehrenzweig (1973) points out how it reflects the artistic creative process itself. It does not follow simply one line of discussion, the lines are many and he suggests that most readers would not be able or would not be interested in all the lines. He thus recommends a syncretistic approach to reading the book which is comparable to the way children listen to a story. They can be totally involved in a story even if they understand only a little, they take "flying leaps" over long stretches that elude them and fasten on the few points that appeal to them. This ability may be due to the child's syncretistic capacity to comprehend a total structure rather than analysing single elements**.**

> All artistic structure is essentially polyphonic it evolves, not in a single line of thought, but in several superimposed strands at once. Hence creativity requires a diffuse, scattered kind of attention that contradicts our normal logical habits of thinking. (14)

APPENDIX 26

BEGINNING AND END OF COURSE QUESTIONNAIRES

This appendix gives examples of beginning and end of course questionnaires administered to students of the subject 'Ensenañza del Inglés en el Aula' / Classroom management[32]. The beginning of course questionnaires were collected in after being completed by the students, photocopied and the originals returned to them so that they could later, particularly especially at the end of the course, refer back to them. Many students included them in their learning journals and made reference to them, when reflecting on the course, also in their learning journals.

[32] This is a modular four month optional pre service teacher training course for Spanish students going on to teach English as a Foreign Language and forms part of a degree course in English Philology at the University of Jaén

Examples of beginning of course questionnaires: designed to focus students' thoughts about their own aims, expectations and command of English at the beginning of a course on Classroom Management.

Examples of end of course questionnaires: designed to focus on the content and methodology of the course of Classroom Management as well as to draw on the students' own expectations at the beginning of such courses.

APPENDIX 27

LEARNING STYLES AND STRATEGIES

Students [33] were asked to reflect on and respond to the following questions:

1. How do you feel you best learn and absorb new material?

Some students considered their response to the actual teaching situation while others focused their answer more on how they personally dealt with the new information after it was presented to them. Some comments could be applied to both situations. Their responses say something about their learning styles and also give some of their personal strategies for dealing with various types of subject matter.

a) Responses more related to the classroom situation

- when clear explanations are provided
- when there is interaction and involvement in the topic
- when I feel relaxed and motivated and not pressurised
- when there is a combination of theory and practice, the information to be explained first then practical exercises or activities as reinforcement
- when there is audio- visual support in the classroom including the use of gestures and intonation on the part of teachers to draw attention to important points, together with clear explanations.

b) Responses more related to the students' follow up to classroom teaching

- by associating or matching a piece of information with an image

[33] 5th. Year students of English Philology on a preservice teacher training course "Didáctica del Inglés" 1997, University of Jaén.

- by listening to or reading the new information again and again
- by relating all new information to something else, both in real life & classroom learning situations
- by being able to perceive new information in a connected and interrelated way given the difficulty of memorising unrelated and isolated ideas, and the need to establish relations between concepts.
- By relating new information to things already known
- By devising one's own audio and visual aids and by reading aloud the new information
- By grouping new information in a personalised way, that is, in a way different from the teacher's way of presenting and organising the information and by relating new to known.
- By learning vocabulary in context
- By reading up the new material meticulously and researching the facts for oneself
- By reading the new information rather than having it presented orally
- By reading the new information over and again until it gets fixed in the memory
- Need for the information to be interesting, then the process will be more enjoyable and rapid
- By writing the new information in one's own way, reading it three to five times
- By trying to concentrate, (no indications as to special techniques)

2. In your learning experience has anyone ever helped you to become aware of, think about and develop your own learning styles and or strategies?

More than half the students who answered the questionnaire answered with a categorical 'no'. Of the other half, several students mentioned specific cases where someone had helped them either directly or indirectly. For example one student

mentioned a teacher at primary school who spent one hour a week showing learners how they could get the most out of their learning and enjoy classroom tasks. One mentioned a literature teacher who showed students how to get the gist of a passage and the use diagrams to help to organise and learn new information. One mentioned how studying different language teaching methods had helped to highlight different ways of learning. A discussion group gave one student the opportunity to talk to others and reflect on the way they learned, which opened minds to different ways previously unthought of. Another had learned a lot by reading up the subject for herself.

Of those students who gave negative answers some added a comment, for example 'the teacher established a way of learning and gave no freedom to students to choose any other way'.

3. In general do you feel that your teachers have been conscious of the different learning styles of their students?

Some responses were related to their learning experiences in general, although some differentiated between different stages in their education. The majority of students answered 'no' to this question and most added a comment of which these provide a cross section:

- if they had they might have done something to improve them
- teachers give the class and don't pay attention to the way students learn
- generally not, the aim was to finish the set topics
- teaching was an impersonal activity, in spite of teaching human beings
- didn't take into account different individuals with different needs
- same for all students, and therefore frustration for many
- it depended on the teacher's interest in explaining the subject and that often it was taught in the same way every year, regardless of different students, but others were more helpful
- Learning by heart was the most common demand
- Few bothered to inquire or counsel, correcting the fruit of the students' own style, whether good or bad'

At least half the group commented that at primary and secondary levels teachers showed no apparent awareness of learning styles. The teachers just taught the subject and little or no attention was paid to individuals. One answered that in secondary school the exam results were the most important consideration, that the results were more important than the process, and that imagination and creativity were given little or no recognition. A few said that at the University some teachers seemed more aware of the diversity of their students and presented more alternatives and tried to personalise their way of teaching.

Those who responded more positively to this question claimed that although that some of their teachers, especially with smaller classes arranged for different ways of approaching the subject and used visual, auditory and kinaesthetic means to help students assimilate new information.

4. Have you ever given any thought your learning style, the ways you personally learn?

Most students responded that they had certainly given the matter some thought. Here is a selection of their responses:

- I've noticed that learning is easier when I can perceive things in an integrated way and create a meaningful structure.
- In subjects in which I find the activities more comfortable I find them easier, different subjects provoke different strategies
- Every time I find myself in a new learning situation, new subjects to study, I analyse the situation and try to adapt my capacities to it, not always successfully
- It's always been important for me, sometimes I think you could gain time if you did it another way, I try to put into practice new things that come into my head.
- Sometimes I think, what is the best way to learn? but I haven't paid serious attention to it yet.
- I wonder about my learning style and think that sometimes we learn under pressure and this makes learning more difficult. When I fail an exam, I wonder if I chose the right method.

- I realise that I can learn actively or passively without noticing it, sometimes I wonder if I had used other strategies I would have improved my learning.
- Yes, above all when I compare my way of learning with that of other people and I think I have a reflective– cognitive style rather than an impulsive one
- No, I'm not very conscious of it. It just happens. It's miracle really!
- Not consciously. The problem is that if you pay much attention to the things you "have" to learn, you don't learn so easily and well as if you acquire knowledge unconsciously and indirectly
- Sometimes I think my way of studying is not the best way
- Yes, according to the type of information to be assimilated I start thinking about the best technique to acquire this new information.
- Yes, and I am quite eclectic with regards to my learning strategies because for every exam I apply a different one if I don't have time to use my preferred technique

Most of these students do seem to have given some thought to the way they learn. People are different and do learn in different ways and these students seem to reflect a cross section of preferred learning styles. They have either consciously or unconsciously and with varying degrees of success evolved their own ways of dealing with learning situations. Little attention either directly or indirectly seems to have been paid to this area during their years of study yet it is an area which could be usefully explored in the pursuit of more creative teaching and learning.