Maria Elizabeth Ellison de Matos

CLIL as a Catalyst for Developing Reflective Practice in Foreign Language Teacher Education

Thesis presented for the award of Doctorate in Didactics of Languages from the Faculty of Arts and Humanities of the University of Porto. Supervised by Professor Maria da Graça Lisboa Castro Pinto, Faculty of Arts and Humanities, University of Porto, and Professor Victor Pávon Vazquez, Faculty of Humanities, University of Córdoba.

Porto
2014

Abstract

This thesis is a study of two foci, one an established practice in teacher education, systematic reflection, the other a new educational approach (to Portugal), Content and Language Integrated Learning (CLIL). These converge within a reflective model of teacher education where each one influences the other in cycles of reflective practice which expose developing teacher knowledge of CLIL in action and bring about change in attitudes and educational practices. It examines the perspectives of three experienced English language teachers who experimented with short sequences of CLIL across an academic year during their teaching practicum in primary schools. The three teachers formed a multiple case study where qualitative data were collected at three key phases (Pre- Action- and Post-Action) using a variety of tools and modes to obtain reflections on eight foci which formed broad deductive categories: context, understanding of CLIL, methodology, CLIL vs. ELT, ELT for young learners, learners, teacher competences, and personal and professional development. The data were analysed along two dimensions: content and types of reflection on CLIL. Sub-categories for content of reflection were formed using a grounded approach. Types of reflection were analysed using a rubric tool which consisted of descriptors for four types of reflection identified in the literature and studies: Type 0. Descriptive/behavioural; Type 1. Descriptive/analytical; Type 2. Dialogic/interpretative; and Type 3. Critical/transformatory.

The findings revealed many sub-categories for each of the eight deductive categories, which capture rich detail of teachers' perceptions of CLIL, the majority of which emerged during the Action-phase. There was no logical sequence of progression through types of reflection with time as a range was detected at each phase. This refutes the idea of hierarchies or developmental stages of reflection, and supports the idea of reflection as responding to pedagogical circumstances. Amount of experience was not synonymous with more Type 3 critical/transformatory reflection, as action becomes routine, knowledge becomes tacit, less easily surfaced and articulated, and more difficult to problematise. This type of reflection was least engaged in, distanced from action and less detailed. This raises the issue of the need to further develop strategies which support teachers so they may attribute meaning to their actions which may lead to further change in practice.

The study underlines the importance of experimenting with new educational approaches within a reflective practice model in teacher education which brings about and captures details of action that contribute to its knowledge base. It has implications for a number of areas: for teacher education which incorporates a pedagogy of reflection; for shaping best practice in English language teaching and the teaching of foreign languages to young learners; for CLIL teacher education involving language teachers; for the implementation of CLIL in primary schools in Portugal; and the development of the profile of the English language teacher.

Key words: Reflective practice; dimensions of reflection; Content and Language Integrated Learning (CLIL); English Language Teaching (ELT); primary English language teaching; second/foreign language teacher education.

Resumo

A presente tese constitui o estudo de dois focos: um respeitante à prática instaurada na formação de professores, reflexão sistemática, e outro relativo a uma nova abordagem educativa (para Portugal), 'Aprendizagem Integrada de Conteúdos e de Língua' (AICL). Convergem ambos num modelo reflexivo de formação de professores em que cada um influencia o outro em ciclos de prática reflexiva que exibem a evolução do conhecimento do AICL em ação por parte do professor e ocasionam mudança de atitudes e de práticas educativas. Examina esta tese os pontos de vista de três professoras com experiência letiva de língua inglesa que praticaram sequências curtas de AICL ao longo de um ano académico durante a sua prática de ensino em escolas do 1.º ciclo. As três professoras possibilitaram um estudo de caso múltiplo, cujos dados qualitativos foram recolhidos em três fases cruciais (Pré- Ação- e Pós-Ação), usando uma variedade de instrumentos e de modos de obter reflexões sobre oito focos correspondentes a categorias dedutivas abrangentes: contexto, compreensão do AICL, metodologia, AICL vs. o ensino do Inglês como língua estrangeira, o ensino precoce do Inglês; aprendentes num contexto AICL, competências relativas aos professores, e desenvolvimento pessoal e profissional. As subcategorias relacionadas com o conteúdo da reflexão foram criadas com base numa abordagem fundamentada. Foram ainda analisados três tipos de reflexão tirando partido de um instrumento formado por descritores destinados a quatro tipos de reflexão identificados na literatura e em estudos: Tipo 0. Descritivo/comportamental; Tipo 1. Descritivo/analítico; Tipo 2. Dialógico/interpretativo; e Tipo 3. Crítico/transformador.

Os resultados revelaram muitas subcategorias para cada uma das oito categorias dedutivas que captam com pormenor as perceções dos professores sobre o AICL. A maioria emergiu durante a fase da ação. Não se registou, com o tempo, uma sequência lógica progressiva através dos tipos de reflexão, na medida em que foi detetada uma série em cada fase. A ideia de hierarquias de estágios de desenvolvimento da reflexão é assim rebatida e, em contrapartida, é defendida a ideia de a reflexão responder às circunstâncias pedagógicas. O facto de se possuir mais experiência não é sinónimo de o Tipo 3 de reflexão crítico/transformador ocorrer em maior número, porquanto a ação torna-se rotina, o conhecimento passa a ser tácito, menos facilmente traduzível e articulado, e consequentemente de mais difícil problematização. A reflexão em causa

foi menos adotada, por estar mais distante da ação e ser menos pormenorizada. Tal facto faz com que seja necessário desenvolver estratégias que ajudem os professores a atribuir significado às suas ações que podem levar, por seu lado, a mudanças na prática.

Este estudo sublinha a importância de experimentar novas abordagens educativas num modelo de prática reflexivo destinado à formação de professores que ocasione e granjeie pormenores de ação que contribuam para a sua base de conhecimento. Comporta igualmente implicações para uma série de áreas: para a formação de professores visto que incorpora uma pedagogia de reflexão; para dar forma a uma melhor prática do ensino de língua inglesa e de línguas estrangeiras para aprendentes jovens; para a implementação do AICL nas escolas do 1.º ciclo em Portugal; e para o desenvolvimento do perfil do professor de língua inglesa.

Palavras-chave: Prática reflexiva; dimensões de reflexão; Aprendizagem Integrada de Conteúdos e de Língua (AICL); ensino do Inglês como língua estrangeira; o ensino precoce do Inglês; formação de professores de língua segunda/estrangeira.

Acknowledgements

There are many to whom the carrying out of the study and writing of this thesis are owed a debt of gratitude.

I would like to thank the three teachers and the school communities in which they carried out their CLIL projects without whose participation and cooperation this study would not have been possible.

To my supervisors: Professor Graça Pinto, for her infinite patience, wisdom and constant support in guiding me through the stages of my research and writing of this thesis; and Professor Victor Pavón for his expert suggestions regarding CLIL, his encouragement and swift responses to my every query. I am indeed fortunate to have been the recipient of their professionalism and expertise.

I would especially like to thank Professor Cristina Parente from the Department of Sociology (FLUP) for her advice regarding the methodological design of the study.

To the three independent raters who validated the rubric tool used in the analysis of the findings of the study.

To colleagues and 'critical friends' who have, in one form or another, provided a sounding-board for working through my ideas: Elena Galvão, Felisbela Martins, Fernanda Martins, Maria Alfredo Moreira, Nicolas Hurst, Paulo Santos, and Simone Tomé.

To library staff at FLUP, in particular Dr João Emanuel Leite, for the swift acquisition of journal articles and books requested.

And last, but by no means least, my family, for the love, patience and understanding they have shown throughout.

Contents

Abstract ……………………………………………………………………………...iii

Resumo …………………………………………………………………………………v

Acknowledgements……………………………………………………………………vii

Contents………………………………………………………………………….......viii

List of acronyms and abbreviations…………………………………………………....xiv

List of figures and tables………………………………………………………………xv

Introduction……………………………………………………………………………...1

Part I. Theoretical background: reflection on change in foreign language teacher education, Content and Language Integrated Learning, and reflective practice……….15

Chapter 1. Change in foreign language teacher education: reaction to and action for……………………………………………………………………………………..17

Introduction…………………………………………………………………………….19

1. External forces: drivers of change in education…………………………………......20

    1.1. European policy………………………………………………………………....21

    1.2. Mindsets of the new generation of learners……………………………..........23

2. Internal forces: Critiquing foreign language teacher education ……………….........25

3. Changing landscapes in foreign language teacher education………………………..27

4. The importance of teacher development...31

5. New directions…………………………………………………………………….....33

    5.1. CLIL: A new educational approach……………………………………..........33

    5.2. CLIL across Europe……………………………………………………….......36

    5.3. CLIL in Portugal……………………………………………………………….37

6. Teacher education as driving and responding to change…………………………....39

Summary……………………………………………………………………………….41

Chapter 2. Understanding Content and Language Integrated Learning (CLIL)……...43

Introduction………………………………………………………………………........45

1. The essence of CLIL……………………………………………………………….45

    1.1.The scope of definition………………………………………………………….46

        1.1.1. CLIL and immersion education……………………………………….48

        1.1.2. CLIL and bilingual education………………………………………...50

        1.1.3. Controversy over the label…………………………………………....51

    1.2.The uniqueness of CLIL………………………………………………………...52

    1.3. Principles and theories of learning……………………………………………...55

1.3.1. Second language acquisition theories…………………………..56
1.3.2. Cognitive learning theories: constructivism and social constructivism……………………………………………………..57
1.4. Language in CLIL………………………………………………………59
1.4.1. BICS and CALP……………………………………………. 60
1.4.2. Meaning and use vs. focus on form……………………………62
1.4.3. Teacher language proficiency and use…………………………..64
1.4.4. A shift in perspectives: language as a tool for learning………....66
2. Methodology………………………………………………………………...67
2.1. Conceptual frameworks……………………………………….........68
2.2. The 4Cs framework……………………………………………….69
2.3. Planning for CLIL……………………………………………….....71
2.4. Scaffolding………………………………………………………...72
2.5. Materials and tasks………………………………………………...75
2.6. Assessment………………………………………………………...78
3. Benefits of CLIL…………………………………………………….........80
4. Concerns……………………………………………………………..........81
5. CLIL vs. English Language Teaching (ELT)………………………….....85
5.1. Similarities and differences……………………………………........86
5.1.1. Aims……………………………………………………......87
5.1.2. Approaches/methodology…………………………….................88
5.2. Mutual gains: incorporating best practices…………………………......89
6. ELT and/or CLIL for Young Learners ……………………………………...91
6.1. The case for the early start………………………………………....91
6.2. ELT for Young Learners in Portugal……………………………….....94
6.3. The limitations of traditional ELT for young learners……………………..95
6.4. The case for CLIL……………………………………………….....97
6.4.1. Examples of successful CLIL projects for young learners……....99
7. Implementing CLIL……………………………………………………….......100
7.1. Grassroots initiatives……………………………………………….101
7.2. Reasons for implementation……………………………………...102
7.3. Essentials of implementation…………………………………..…103
7.3.1. Stakeholder support……………………………………........105
7.3.2. Clear objectives and models……………………………………105

7.3.3. Teachers and collaboration……………………………….........107
8. Teacher education for CLIL…………………………………………………….108
8.1. CLIL training courses…………………………………………………109
8.2. Standardising competences for CLIL: Towards a CLIL
Teacher profile…………………………………………………………...112
8.3. European support for CLIL teacher education………………….........114
9. Research in CLIL…………………………………………………………........117
Summary…………………………………………………………………….......118
Chapter 3. Conceptualisations of reflection and reflective practice in foreign
language teacher education…………………………………..........................121
Introduction………………………………………………………………………..123
1. Definitions and principles of reflection and reflective practice……………………123
2. Dimensions of reflection…………………………………………………………...131
2.1. Content - what teachers reflect on...132
2.2. Types of reflection..136
3. Operationalising reflective practice…………………………………………...142
3.1. Broad frameworks: Traditional models of foreign language teacher
education…………………………………………………………………143
3.1.1. The Craft Model…………………………………………........144
3.1.2. The Applied Science Model……………………………………144
3.1.3. The Reflective Model………………………………………..145
3.2. Supporting teachers' reflection: the role of the facilitator.........................148
4. Modes, techniques and tools for promoting reflection……………………………153
4.1. Written reflection...154
4.1.1. Journal writing...155
4.1.2. Lesson reports..158
4.2. Spoken reflection..158
4.2.1. Pre- and post-lesson conferences..159
4.3. Techniques and tools...161
4.3.1. Micro-teaching...161
4.3.2. Observation tasks...161
4.3.3. Lesson plans...162
4.3.4. Using films of teachers' lessons..163
4.3.5. Critical incidents..165

4.3.6. Portfolios…………………………………………………………165
4.3.7. Action research...167
5. Operationalising CLIL within a reflective model at FLUP……………….............168
5.1. Masters degrees in Teaching English and another Foreign
Language at FLUP………………………………………….....................169
5.1.1. Master in Teaching English and another Foreign
Language in Basic Education (MEIB)………....................................170
5.1.2. Content of the English language teaching
programme for MEIB……………………………………………………171
5.2. Stages of the reflective model and CLIL……………………………...172
5.2.1. Stage 1. Pre-training. Trainee's existing conceptual
schemata or mental constructs………………......................................173
5.2.2. Stage 2. Professional education/development……………………174
5.2.3. Goal: Professional Competence……………………………….183
Summary…………………………………………………………………….......183
Part II. The Study……………………………………………………………185
Chapter 4. Design and Methodology of the Study……………………………......187
Introduction………………………………………………………….............189
1. Purpose of the study………………………………………………………....189
1.1 Aims and research question……………………………………………....191
2. Research paradigm………………………………………………….............191
2.1. Case study……………………………………………………………..193
3. Boundaries of the current study……………………………………………...198
3.1. Project requirements……………………………………………………..200
3.2. Teachers and their teaching contexts…………………………………….203
3.2.1. Teacher C…………………………………………………………204
3.2.2. Teacher R…………………………………………………………206
3.2.3. Teacher CD………………………………………….............209
3.2.4. Other participants……………………………………………... 211
3.3. University seminars for the CLIL teachers……………………………...212
3.4. Key phases of the study…………………………………………………215
4. Dimensions of reflection of the study…………………………………….….215
4.1. Content - what teachers reflected on……………………………………216
4.2. Types of reflection……………………………………….................216

5. Data-gathering opportunities……………………………………………......................218
6. Data-gathering tools: choice, design and administration......................................220
6.1. Questionnaires...221
6.2. Films of lessons...227
6.3. Audio-recorded seminar at FLUP and field-notes................................228
6.4. Written reflection on the self-observation process.................................230
6.5. Audio-recorded post-lesson discussions..231
6.6. Post-lesson written reflections of lessons..233
6.7. Audio-recorded interview with each teacher...234
6.8. Final written reflection on the CLIL project...236
7. Complementary tools...237
7.1. Written reflections on observations of the generalist teacher…………237
7.2. Lesson plans..238
7.3. Interviews with generalist teachers...239
8. Approach to data analysis..241
8.1. Processing and organisation of data...242
8.2. First dimension of analysis: content of reflections...............................243
8.3. Second dimension of analysis: type of reflection................................244
8.3.1. Reliability of the rubric..244
9. Triangulation..245
Summary...246
Chapter 5. Findings and discussion………………………………………...........247
Introduction……………………………………………………………………..249
1. Content…………………………………………………………………………249
1.1. Context...253
1.2. Understanding of CLIL……………………………………………264
1.3. Methodology...275
1.4. CLIL vs. ELT...290
1.5. ELT for Young Learners………………………………………….....303
1.6. Learners………………………………………………………………310
1.7. Teacher competences...323
1.8. Personal and professional development……………………….......336
2. Types of reflection within and across phases……………………….........345
Summary..354

Conclusions……………………………………………………………….........357
Introduction…………………………………………………………………….359
1. Summary of findings………………………………………………………...361
2. Implications of findings……………………………………………...........369
    2.1. Implications for developing reflective practices……………………...369
    2.2. Implications of findings about CLIL…………………………………372
3. Limitations of the study……………………………………………...........378
4. Future lines of study…………………………………………………………380
References………………………………………………………………............385
Appendices…………………………………………………………………...411
List of Appendices………………………………………………………………...412

List of acronyms and abbreviations

AECs: Atividades de Enriquecimento Curricular

AICL: Aprendizagem Integrada de Conteúdos e Língua

CBI: Content Based Language Instruction

CEFR: Common European Framework of Reference for Languages

CLIL: Content and Language Integrated Learning

EAP: English for Academic Purposes

EMI: English Medium Instruction

ELT: English Language Teaching

EFL: English as a Foreign Language

ESP: English for Specific Purposes

ECML: European Centre for Modern Languages

EMILE: Enseignement d'une Matière par l'Intégration d'une Langue Etrangère

ESL: English as a Second Language

FLUP: Faculdade de Letras da Universidade do Porto

MEIB: Master in Teaching English and another Foreign Language in Basic Education

MEIBS: Master in Teaching English and another Foreign Language in the third cycle of Basic Education and Secondary Education

PPK: Personal Practical Knowledge

SLA: Second Language Acquisition

STEPS – UP: Support for Teaching English in Primary Schools – University of Porto

TBL: Task Based Learning

TPR: Total Physical Response

TESOL: Teaching English to Speakers of Other Languages

List of figures and tables

Figures

Figure 1. Bloom's Taxonomy of Cognitive Processes
(adapted from Ellison, 2010b)…………………………………………………………59

Figure 2. The Language Triptych (from Coyle *et al*., 2010: 36)………………………61

Figure 3. The 4Cs Framework (Coyle *et al.,* 2009: 12)………………………………...70

Figure 4. The CLIL Matrix (Coyle *et al*., 2010: 43)…………………………………...76

Figure 5. The Reflective practice model of professional education/development
(Wallace, 1991:49)..146

Figure 6. Enriched reflection (Ur, 1991:7)…………………………………………....147

Figure 7. The Practice Triangle of Handal and Lauvås (1987)...................................150

Tables

Table 1. The 4Cs curriculum (Coyle *et al.,* 2009: 12)……………………………………….54

Table 2. Boundaries of the study……………………………………………………...199

Table 3. The seminar programme for CLIL teachers during
the phases of the study…………………………………………………………………214

Table 4. Key phases of the study, purpose and data-gathering tools………………....220

Table 5. Sub-categories for deductive category: context……………………………..253

Table 6. Reflection types per phase: context………………………………………….263

Table 7. Sub-categories for deductive category: understanding of CLIL…………....264

Table 8. Reflection types per phase: understanding of CLIL………………………...274

Table 9. Sub-categories for deductive category: methodology……………………....275

Table 10. Reflection types per phase: methodology…………………………………..289

Table 11. Sub-categories for deductive category: CLIL vs. ELT…………………….290

Table 12. Reflection types per phase: CLIL vs. ELT………………………………....303

Table 13. Sub-categories for deductive category: ELT for young learners…………...303

Table 14. Reflection types per phase: ELT for young learners……………………….309

Table 15. Sub-categories for deductive category: learners…………………………...310

Table 16. Reflection types per phase: learners………………………………………..322

Table 17. Sub-categories for deductive category: teacher competences……………..323

Table 18. Reflection types per phase: teacher competences………………………….336

Table 19. Sub-categories for deductive category:
personal and professional development………………………………………………337

Table 20. Reflection types per phase: personal and professional development……...344

Table 21. Types of reflection per case/phase of study..346
Table 22. Majority reflection type per lesson sequence per teacher.............................347
Table 23. Majority reflection types per case/phase…………………………………...351

Introduction

Introduction

"[R]eflective teaching is predicated on lifelong professional renewal."

(Nunan and Lamb, 1996: 122)

The study presented in this thesis is centred on a vital component of teaching and teacher education practices anywhere – reflection. Reflection lies at the core of teacher education programmes that aim to prepare teachers for a career of life-long learning and professional development. Reflection is part of a 'spiral' that circles for as long as one wants to learn and believe that one's practice can always improve. This thesis also embraces 'change', and reflective practices are essential in examining and processing change. Reflection acts as a lens on practice which must be viewed systematically in order to bring about change (Loughran, 2002: 33). This change may be a practical response, a heightened awareness of the state of one's practice or a change in attitude. Whatever the form that this change takes, it will always translate into a different way of seeing things, what Boud *et al.* (1985: 19) call "new understandings and appreciations". Another way of stating this is provided by Kemmis (1985: 141) who says that the "product [of reflection] is 'praxis' (informed, committed action)". It is this which has led the author of this study (henceforth referred to as 'the author') to attempt to experiment with new practices in teacher education which may afford student-teachers the opportunity of experiencing new understandings and appreciations of *their* practice which may lead to their personal and professional development.

The author's own new understandings and appreciations have come about during a process of reflection on foreign language teacher education, the external and internal forces which have been driving it in recent decades, the new generation of learner, and an interest in the potential of new, alternative educational approaches such as is the case of Content and Language Integrated Learning (CLIL) in Portugal. This has brought about a problematising of teacher education practices within the English language teacher education programme at Faculdade de Letras, Universidade do Porto (FLUP), and a renewed commitment to developing a teacher education programme which serves the needs of teachers this century.

This thesis consists of a reflection on all of these key areas. The study within it is a convergence of teacher education practices which fuse an established feature of the teacher education programme, namely (systematic) reflection, with the practice of a new educational approach in the Portuguese context – CLIL. It is CLIL that acts as a catalyst for stimulating reflection and developing reflective practices within the teacher education programme.

CLIL is not a totally new phenomenon. It has been around in various guises for many years (Mehisto *et al*., 2008: 8-10; Coyle *et al*., 2010: 2; Dalton-Puffer *et al*., 2010: 3). Interest in CLIL and its growth since the mid 1990s has come about as a result of reflection on the state of foreign languages education, the need to raise standards and renew students' interest in learning languages. CLIL offers teachers and learners a unique means of learning and understanding both academic subject content and a foreign language, one which simultaneously involves the development of thinking processes and invites new perspectives on cultural understanding. Such a "multiperspectival approach" is also in line with European Union ideals of a "joint European culture" (Wolff, 2002: 48) where its citizens speak two or more languages. As such, CLIL is also credited as a potential contributor to achieving European goals of unity and diversity through enhancing plurilingualism.

The 'pragmatism' of CLIL also extends to what is often termed the 'added value' of this educational approach. Incorporated within this is the immediacy of application within the learning environment which makes it more appealing to learners who can see the need to learn and use the foreign language within and beyond the classroom. This helps to overcome motivational problems associated with future rather than immediate use of the foreign language (Baetens Beardsmore, 2002: 26). This makes learning more authentic and meaningful. The idea of relevance is key. As Marsh states (2002: 60), "Without relevance it can be hard to achieve meaningful learning". CLIL is about gaining knowledge and skill simultaneously (Marsh, 2000: 6). It offers an alternative fresh approach to learning which deals with 'real' content in authentic learning contexts which offer learners "new ways of seeing the world through studying a new language" and opportunities to "develop their abilities as communicators through accessing this new knowledge" (King, 2009: 4).

Further added value is attributed to CLIL through enhanced cognitive development brought about by more learner engagement in understanding content through the language. It could also be said that the multi-tasking required of learners in CLIL contexts is synonymous with the behaviour of the generation whose operating mantra is 'learn now, use now'. Mehisto *et al.* (2008: 21) state that CLIL is "a just-in-time approach as opposed to a just-in-case approach". Added to this is the idea of integrated learning which is commonplace in the lives of today's youth (Marsh, 2006: 32). This, in turn, filters over to collaboration between teachers (integration of people) and fusing different ways of teaching (integration of methodologies). This reflects new styles of learning and teaching. CLIL promotes inter-disciplinarity and the development of skills which can be used across different subjects. This, in turn, may lead to improved quality of opportunities for academic, social and economic mobility for many more people than an educated elite, thus making plurilingualism a reality within an integrated Europe.

The implementation of a CLIL approach in schools requires curricular transformation through examining different perspectives on teaching and learning which form a new type of didactics (de Bot, 2002: 31). Wolff (2002: 48) suggests that the true potential of CLIL lies in exchanging "encrusted educational structures" with modern pedagogical principles which promote collaborative teaching and learning, and autonomy within a "complex whole approach" to education as opposed to isolated and fragmentary subject teaching. This is further supported by Ting (2010) who suggests that education needs to guide and support understanding and application of the most important factual information:

> Potentially, CLIL can open a new chapter in 21st century education, one which must provide learners with a deep-level comprehension of concepts rather than a myriad of facts. The challenge for (…) education today is not the inculcation of facts but empowering learners with a solid concept-base to discern trash from treasure. (Ting, 2010: 14).

CLIL is thus hailed as a 'change agent' bringing about transformation in educational practices in Europe (Wolff, 2012: 106; Coyle, 2013: 244). Marsh *et al.* (2005: 8) state that CLIL "threatens certain established 'ways of thinking', and offers opportunities for initiating change in education". This is what gives CLIL the potential to be a good catalyst. It demands and promotes reflection from those involved (Coyle, 2002: 28;

Muñoz, 2002: 36). It provides the necessary tension or puzzle that sets into motion cycles of planning, action and reflection which bring about change. It involves teachers in challenging their beliefs about teaching and questioning long-established approaches and methods of how languages are acquired and learned. However, for teachers to learn from engaging in new practices, they should be involved in systematic reflection which will help them extract new meaning from them. If they are not involved in reflective practice, then their new experiences run the risk of simply turning into new formulae which in a short space of time become routised, unquestioned practice.

Cruickshank (1987: 1) posits a fundamental question for teacher educators everywhere: "Question: What is more important to the beginning teacher than being readied for the first year of teaching? Answer: Being readied for all the years that follow". His answer begs a further question for teacher educators: But *how* do we ready teachers for all those years or rather: how do we prepare teachers for life-long learning in a world of constant change where education must and should do its best to keep up and equip those within it with the skills needed to manage change? A sense of responsibility placed on the shoulders of teacher educators resonates in the statement of Yost *et al.* (2000: 39), "[T]eachers of the future must have the intellectual, moral and critical thinking abilities to meet the challenges of 21st century schools". Larrivee (2000: 293) furthers this by suggesting a change in power dynamics to provide for authentic learning communities:

> These changing demands call for teaching styles that better align with emerging metaphors of teacher as social mediator, learning facilitator, and reflective practitioner. Being able to function in these roles begins with teacher self-awareness, self-inquiry, and self-reflection, not with the students.

This involves commitment and responsibility on the part of all concerned, no least teachers themselves as instruments of their own development. So how can teacher educators help teachers become reflective? How can reflective practices be set in motion? This is best done when teachers are made aware of what constitutes reflective practice and how they can become consciously engaged in it so as to help them become self-aware of their own acts of reflection. This could be done at the beginning of any teacher education course whether pre- or in-service. This may begin with an examination of beliefs and values about teaching, and what has brought them to this point when they want to embark on or continue in this chosen profession. This is the

starting point for reflection and on what all other input is judged against. New concepts from the knowledge base of teacher education will be presented in theory, but for these to be fully understood they must be reflected upon in the broadest sense with a consideration of the implications for practice, and then tested in practice. As Zeichner and Liston (1996: 1) state:

> If a teacher never questions the goals and the values that guide his or her assumptions, then it is our belief that this individual is not engaged in reflective teaching. This view is based on a distinction between teaching that is reflective and teaching that is technically focused.

Without reflection, there is the danger that input on teacher education programmes may be viewed in the technical sense as a 'given' and not stimulus for analysis. Cruickshank warns at the limitations of the technical preparation of beginning teachers which may serve them for the first year of teaching and little else (1987: 1-2). Such preparation for surviving the practicum will not bring about autonomous practices that will lead to change (Paiva *et al.,* 2006: 79). Larrivee (2000: 293) states that, "Unless teachers develop the practice of critical reflection, they stay trapped in unexamined judgements, interpretations, assumptions, and expectations". Encouraging teachers to become reflective from early on is a necessity in teacher education programmes and it is crucial that this is taken through to their practicum so that its relevance becomes apparent in the practice of being a teacher and the term does not become resigned to theory. This is, however, a challenge. Van Lier (1994: 340) cited in Norrish and Pachler (2003) voices a common concern:

> [P]ractitioners tend to be, (…) missing in action rather than lost in thought. The pressure to act fast and well, to 'perform' well-crafted lessons, or in less happy circumstances, to go through routinized motions so as to reach the end of the day with the least amount of hassle, creates its own rhythm of movement, within which systematic reflection and teacher research seem to find no place, except for the most restless and courageous souls.

Reflection needs time, and this is what seems to be constantly lacking in the day-to-day lives of teachers. The danger is that if reflection does not take place, resolving the problems of teaching becomes reduced to a what Korthagen and Vasalos (2005: 48) describe as a " 'quick fix'- a rapid solution (...) rather than shedding light on the underlying issues". It is therefore highly important that teacher education programmes

make time for reflection so that teachers may recapture the essence of their practice close to the event so that it does not become lost to time.

The author became all too aware of the above challenges when, in 2004/2005, she became involved in the supervision of student-teachers during their teaching practicum as part of the post-graduate course in foreign language teaching[1], the precursor to the current Masters degree in teaching English and another foreign language in the third cycle of basic and secondary education. Her experience of supervising student-teachers in schools, reading their lesson plans, observing their practice, listening to their post-observation feedback, witnessing their project presentations (the topics of which had been determined by the university teachers and amounted to theoretical lectures which mirrored their university lessons) had provided her with enough evidence to conclude that there was a definite lack of reflection on, and during their practice. The gap between theory and practice was as evident at the end as it had been at the beginning of the practicum. There was little attempt to transform practice into something relevant, but rather to reproduce and perpetuate the prescriptive approach (Gebhard *et al.,* 1990: 16) previously delivered in theoretical classes at the university.

There was a real need to make the practicum provide for something more relevant and useful which would equip student-teachers with skills for life-long learning within their teaching careers (Wallace, 1991: 58; Van Looy and Goegebeur, 2007: 109). This meant developing a programme which allowed for more autonomy and reflection so as to enable the following:

- a closer link between theory and practice;
- the opportunity for student-teachers to develop a better awareness of themselves as teachers and of teaching;
- to allow student-teachers to 'own' and 'create' knowledge which would develop throughout and beyond their practicum;
- to provide student-teachers with more autonomy to make decisions from which guide their own personal and professional development;
- to encourage them to understand what goes on in their classrooms and be able to answer the *whys* of teaching and in doing so develop their critical thinking;
- to encourage effective collaboration among and between members of teaching groups.

[1] This is commonly referred to as the 'Curso de Especialização em Ensino'. This was terminated at FLUP at the end of the academic year 2008/2009, the same year in which the Masters degrees in teaching foreign languages were introduced.

Wallace's 'reflective model' (1991: 48-59; 1998: 13) was seen as having the potential to realise this and was introduced into the English language teacher education programme in 2006. The model provides a two-stage framework for reflective practice from "Pre-training" to "Professional education/development" which leads to the goal of "Professional competence" (Wallace, 1991: 49). Systematic reflection became integrated within the practicum through observation tasks (adapted from Wajnryb, 1992) initiated in faculty seminars, conducted in schools and reflected upon in both. These tasks helped student-teachers see the link between the "received knowledge" gained from their university course and teaching practice seminars, and the "experiential knowledge" (Wallace, 1991: 14-15) gained from observation and eventual practice, and how both contributed to the development of their own reflective practice. They served as a guide for helping them notice 'gaps' in teaching and learning themselves which they could focus on in their own action research projects. Other means by which systematic reflection was incorporated into the teacher education programme were through reflective lesson plans incorporating lesson rationales and procedural aims, written reflections on lessons and other aspects of the teaching practice as well as seminar discussions where experiences could be shared and new perspectives gained from this dissemination, and student-teacher-led action research.

The reflective model has remained in operation in the programme for English language teacher education until now. According to the literature, foreign language teacher education at this juncture is one that is centred on the teacher-learner and the knowledge they bring to and create through their experience. It is constructivist, experiential, inquiry-based and reflective. It could be said that the model of English language teacher education at FLUP has been developing along these lines, but it can also be said that it is in danger of becoming static in its content which should be constantly in review. Ur (1996: 8) warns of the dangers of perpetuating the same content and techniques from one group of teachers to another, year after year. Similarly, Nunan and Lamb (1996: 120) remind us of the need to keep in touch with change because "what is technically sound today may not be technically sound tomorrow", and that our ideas as to what is appropriate methodology evolve in the course of our reflective practice. Wallace (1991: 54) also cautions that reflection is not simply a question of whether it happens or not, but rather an issue of quality, "Improving the quality of reflection in professional

education and development must be a major aim of the reflective model". This has been the long-term mission of the English language teacher education programme at FLUP.

In the academic year 2008-2009, Content and Language Integrated Learning (CLIL) was introduced into the didactics of English language programme of the Masters in teaching foreign languages as part of theoretical awareness-building of other practices and trends in foreign language teaching. The author had gained some insights into the experiences of English language teachers conducting CLIL projects in primary schools through small-scale research conducted in 2008 with teachers from the STEPS – UP Project[2]. These projects had three main goals: to make learning in English language lessons more relevant and meaningful; to improve collaboration within schools (between the generalist primary teachers and primary English language teachers) so that the school community could become aware of the positive contribution that English language lessons could make; and to raise the profile of the English language teachers and combat the sense of isolation they frequently experienced. From qualitative data obtained from written questionnaires and reflections, a number of conclusions were drawn related to collaboration, benefits to learning and teaching, and difficulties and constraints encountered (see Ellison, 2010a: 8-11). The STEPS project ended in 2009, but the work related to CLIL had provided significant motivation to continue further studies into this educational approach.

In 2009, student-teachers following the Masters degree in Teaching English and another Foreign Language in Basic Education (MEIB) were encouraged to develop and execute a CLIL-type lesson during part of their practicum in primary schools. During this year small-scale research was conducted into what teachers did to support content and language learning in primary CLIL lessons. An observation tool of scaffolding criteria

[2] In 2005 the author became the pedagogic coordinator of the S.T.E.P.S – UP project (Support for Teaching English in Primary Schools – University of Porto) a protocol between FLUP and Porto city council for the recruitment and support of primary English language teachers in schools within the city as part of the Ministry of Education initiative to introduce English language as an extra-curricular activity. Support from STEPS was varied and constant consisting of a four-year content and language syllabus, online platform, regular face-to-face teacher development sessions and meetings. A community of practice which nurtured a spirit of collaboration was developed. Teachers were encouraged to reflect privately and openly about their experiences, and share ideas and materials. They were also encouraged to engage in small-scale CLIL projects in the schools where they were teaching.

was developed by examining key features of CLIL pedagogy and existing tools used for CLIL teacher performance. The tool was used to detect evidence of scaffolding in the CLIL lessons of two student-teachers. These lessons were filmed. The study also aimed to detect other strategies used by these teachers to support learning which contributed to an accumulating taxonomy of such strategies (see Appendix 1.) The experience of these student-teachers, though very brief, their filmed lessons and the taxonomy of scaffolding strategies, provided important materials for analysis and use in the Masters programme. Since that time, the inclusion of CLIL in the English language teacher education programme has evolved. This evolution is partly the result of the opportunity CLIL afforded the programme to developing reflective practice which is the focus of the current study presented in Part II of this thesis.

Once separate, but now converging foci, reflective practice and CLIL are brought together in this study within a reciprocal relationship where each is dependent upon and supports the development of the other. The purpose of this study is to continue to develop an understanding of CLIL by incorporating a longer CLIL experience, over one academic year, into the practicum of three experienced primary English language teachers who were unfamiliar with this educational approach. CLIL would provide the stimulus for developing reflective practice during their experience which would surface and capture the complexity of their thinking over time. This would provide insights into the way teachers reflect, and whether the type of reflection is determined by time or content. Studies have been conducted into the types of reflection student-teachers engage in during their teaching course and practicum (see Appendix 2 for a list of conceptual frameworks of reflection from these studies), but these have not involved student-teachers of foreign languages or CLIL. Studies related to teachers' perspectives on CLIL practice have mainly related to content teachers and not language teachers teaching the content subject. An exception is the study of Hunt *et al.* (2009) who investigated the work of student-teachers of French as a foreign language conducting content lessons through French in a lower secondary school in the UK.

The current study combines research into what English language teachers reflect on (content) and how they reflect (types of reflection) when teaching CLIL. The contribution is thus two-fold: to an understanding of CLIL as taught by English language teachers in primary schools in Portugal, and to an understanding of teacher

reflection, both of which may help to develop the English language teacher education programme at FLUP and contribute to an understanding of the requirements of teacher education for language teachers in CLIL. These constitute the main aims of the study which are determined by answers to the following research question:

1. What are the perspectives of teachers during their CLIL experience?
    a) What do the teachers reflect on during their CLIL experience?
    b) What types of reflection do they engage in?
    c) Do the foci and types of reflection change over time?

This thesis is divided into two parts. Part I consists of three chapters. As the introductory chapter of the thesis, Chapter 1 provides the background to professional development in teacher education, placing CLIL and reflective practice within it and positioning them for further exploration in later chapters. Entitled 'Change in foreign language teacher education: reaction to and action for', this first chapter examines the forces from outside and within the profession which have brought about change. This is mapped on a trajectory of foreign language teacher education over recent decades which have seen a growing appreciation of teacher perspectives and cognition as contributing to its knowledge base. The chapter sets out the new agenda for teacher education this century which is experiential, constructivist, reflective and inquiry-oriented, and involves experimenting with new educational approaches such as CLIL which is discussed in Chapter 2.

As a growing phenomenon in foreign language teaching and part of the new knowledge base of teacher education, CLIL demands reflection on what it is, and why and how it has evolved as an agent of change. This is the essence of Chapter 2, 'Understanding Content and Language Integrated Learning'. This chapter attempts to problematise CLIL and in doing so draw attention to key characteristics of this educational approach which make it distinct from others. It examines the competences required of teachers and what teacher educators and stakeholders need to know in order for teachers to be well-prepared, and for CLIL to be implemented effectively in schools.

Chapter 3 addresses the complex concept of reflection and how this has been viewed by those involved in teacher education. This includes the processes involved in reflection

as well as the dimensions of content and types of reflection teachers engage in. It puts forward the necessity to develop reflective practices in teacher education in order for teacher-learners to surface and draw meaning from their experiences. Procedures, strategies and tools which engage teachers in systematic reflection are presented, as well as the model of reflective practice at FLUP, how this is operationalised, and how CLIL may be included in it.

Part II of the thesis applies the theoretical concepts explored in Part I to the study which fuses the CLIL experiences of three language teachers within cycles of reflection on and during their practice. It consists of two chapters. The first of these, Chapter 4, provides details of the unique situated nature of the study, its purpose and main aims. It involved qualitative research within a multiple case study. Details of the boundaries of the case study are provided and explained as are decisions regarding the design and methodology. These include the three key phases (Pre- Action- and Post-action), the choice of data-gathering tools, and the two main dimensions along which data were organised. The dimensions are the content of teachers' reflections and the type of reflection teachers engaged in. The content of teachers' reflections are divided into eight broad areas of focus for analysis: Context; Understanding of CLIL; Methodology; CLIL vs. ELT; ELT for young learners; Learners; Teacher competences; and Personal and professional development. The tool or 'rubric' used to analyse the other dimension, the types of reflection teachers engaged in, is presented, as is the means by which it was used.

In Chapter 5 the findings of the study are presented and discussed. This is done in two sections which relate to the main dimensions of content and types of reflection. The section on content of teachers' reflections is organised according to the eight broad areas of focus mentioned above and the sub-categories and themes which emerged across the three cases (in the reflections of the three teachers). Findings are illustrated by extracts from teachers' spoken and written reflections. The Conclusion of the thesis summaries these findings and explores their significance in relation to the aims of the study and the implications for the foreign language teacher education programme at FLUP and beyond. Limitations of the investigation are identified and possibilities for future lines of inquiry are suggested.

It is important, at this point in the thesis, to clarify the use of terminology which is recurrent across chapters.

English as a foreign, second or additional language

These terms are not entirely synonymous although much of their use in the literature would suggest that they are. Carter and Nunan (2001: 2) make a distinction between English as a Second Language (ESL) and English as a Foreign Language (EFL) with the former taught in countries where English is the predominant language of communication outside the classroom context, and the latter where another language is the predominant language of communication outside the classroom. The learner in an ESL context is taught the English language in order to be able to function linguistically in that context. Such is the case of the education of immigrants to English-speaking countries or children in immersion programmes. English as a Foreign Language is that which is taught in non-English-speaking countries where it may be a subject within a school's curriculum. However, in core books about language teacher education, notably those edited by Richards and Nunan (1990), and more recently, by Burns and Richards (2009) and Tedick (2010), as well as a number of state-of-the-art publications, (see, for example, Wright, 2010; Johnson, 2006) 'Second Language Teacher Education' (SLTE) is used as an umbrella term which encompasses many English language teaching contexts and purposes for teaching English. In Portugal, the country in which this study was conducted, English is mainly taught as a foreign language. The term L1 is used to refer to the student's mother-tongue, and L2 to the target language of learning and instruction.

CLIL is frequently associated with EFL contexts, though depending on perspectives, this can also include immersion contexts where ESL is taught. The term 'additional' language is also used in CLIL. This is because the CLIL language may be a minority language, heritage language or a second official language such as the case of Gaelige in Ireland (see Dillon, 2009 for a study on The CLIL Approach in Irish Primary Schools: A Multilingual Perspective) additional to other languages already known to the learner. Some scholars prefer the term "vehicular language", claiming that this is a more "inclusive term" (see Coyle *et al*., 2010: 1).

Multilingual and plurilingual

These terms are frequently used interchangeably though they mean different things. This difference is made explicit in the Common European Framework of Reference for Languages:

> Plurilingualism differs from multilingualism, which is the knowledge of a number of languages, or the co-existence of different languages in a given society. Multilingualism may be attained by simply diversifying the languages on offer in a particular school or educational system, or by encouraging pupils to learn more than one foreign language, or reducing the dominant position of English in international communication. Beyond this, the plurilingual approach emphasizes the fact that as an individual person's experience of language in its cultural contexts expands, from the language of the home to that of society at large and then to the languages of other peoples (whether learnt at school or college, or by direct experience), he or she does not keep these languages and cultures in strictly separated mental compartments, but rather builds up a communicative competence to which all knowledge and experience of language contributes and in which languages interrelate and interact. In different situations, a person can call flexibly upon different parts of this competence to achieve effective communication with a particular interlocutor (2001: 4).

We can interpret this as multilingualism being entwined in social and educational policy, school curricula, and language knowledge and language learning, and plurilingualism as a desirable state of functionally linguistic and cultural competence. Both multilingualism and plurilingualism are commonly cited goals of European supra-national institutions in policy statements (for an in-depth discussion of the uses of these terms, see Pinto, 2013). In this thesis, the author's use of the terms is in accordance with that of the Common European Framework of Reference cited above.

Part I.

Theoretical background: reflection on change in foreign language teacher education, Content and Language Integrated Learning, and reflective practice.

Chapter 1

Change in foreign language teacher education: reaction to and action for.

Introduction

At no time in recent years have we experienced life in such an unstable, fragile and critical world where the only predictable thing is 'change'. This is felt in all aspects of life in the 21st century and none more so than education. This sector is often criticised for not keeping pace with change, or providing young people with the necessary knowledge, skills and understanding that are needed for the times in which we live and beyond. Teachers and teacher educators are at the forefront of change. For some this may be an uncomfortable position, for others it is an opportunity to influence practice for the betterment of themselves and others. Regardless of which group one falls into, change brings with it further challenges. It is the responsibility of those involved in teacher education to prepare student-teachers with the attitude to both embrace change and to effect it. This chapter sets into motion a cycle of reflection on the main drivers of change in education this century, and in foreign language education in particular.

Agents of change come from outside and within the profession. External influences are led by the forces of globalisation which influence social, economic and political policy such as that of the supra-national institutions of Europe. European policy statements influence national and local practice. These, and initiatives regarding foreign language teacher education, are discussed in this chapter in relation to broad European objectives for enhancing multilingualism and plurilingualism. The young people who occupy classrooms also drive change. This is a generation born into a globalised world which demands a broad range of skills to deal with the vast amounts of information made available through technology and the Internet. They need to be able to understand, analyse, evaluate, manipulate, and use it, and they need opportunities to develop competences so that they may do all of these things. Education must provide these opportunities. Change is also influenced by those within the profession who may sense that what they provide is no longer adequate for those it is meant to serve. This chapter sets out to highlight this through a mapping of the trajectory of language teacher education which documents its changing emphases and influences in recent years. The reflective cycle of this chapter ends by suggesting new directions which could be taken to fill the gaps identified in educational approaches and foreign language teacher education. These relate specifically to Content and Language Integrated Learning (CLIL), and a European framework which points to what a modern forward-looking

teacher education for the 21st century should comprise in order to fulfill the needs of both teachers and students.

1. External forces: drivers of change in education

Agents of change come in many different guises. Asikainen *et al.* (2010: 3) identify seven global forces as the drivers of change: socio-demographic shift; science and technological innovation; re-shaped work and organisational cultures; new knowledge and competence demands; imperatives of sustainable development; governance, safety and security; and globalisation. They also identify a corresponding set of factors that drive innovation: neurological, cognitive, motivational factors and social bases of learning; dynamics of lifelong learning and the potential of E-Learning 2.0/3.0; value-creating networks and clusters of innovation; education systems and informal learning; human technologies that support learning; technology-based working and operating environments; private and public sector educational and resources providers. It is easy to identify education as a key factor and facilitator of such change and innovation, though less easy to determine how it may bring it about. This is because educational institutions and educators have not always kept pace with change to the extent that there is a perceived gap between the type of education that young people are receiving and their immediate and future needs (Coyle *et al.,* 2010: 153). Deficits or gaps in education should be acknowledged and addressed before any attempts at change are made.

The ease with which knowledge is transmitted through continuous advances in technology has brought about what is now known as a ‘knowledge society’. It is a society of easy access, quick thinking, risk-taking, and on-the-spot decision-making. It is not simply a question of *what* knowledge is transmitted, but the extent to which that knowledge can be manipulated, used, and new knowledge created. However, in order to function and reap the benefits of this new society, citizens need to develop a range of skills and competences. The Key Competences for Lifelong Learning in Europe Framework (European Commission, 2006a) lists the following as essential competences: mathematical, scientific and technological, digital, interpersonal, intercultural and social competences, entrepreneurship and cultural adaptability. These are all inextricably linked to communication and learning skills. Languages are crucial conduits in these processes. They have become important human and economic capital, and are now seen as an important part of professional competence (Takala, 2002: 40).

The cascading consequences brought about by globalisation are thus manifested in major shifts in knowledge, economies, and people over newly 'borderless' regions. As Coyle *et al*. (2010:157) put it:

> Globalisation invites language shift, especially in terms of human mobility and migration, which leads to dynamic multilingual societies. Because of the impact of multilingualism and plurilingualism on societies, educational systems are under pressure to adapt quickly and accordingly.

This resonates with and directly impacts upon education and curricula, and how we should prepare learners to meet the challenges of the society in which they live (Marsh, 2006: 31). It demands a re-positioning of the role of languages within a 'competence-oriented' education. With this has come a renewed interest in foreign language teaching because of the "dire need" for Europe to educate multilingual citizens as the "linguistic consequences of globalization are more and more evident" (Lasagabaster, 2008: 30) which has forced European policy makers to take note and consider new strategies.

1.1. European policy

Since the 1990s there has been a steady stream of policy statements and initiatives from supra-national European institutions aimed at improving integration, mobility of its peoples and developing robust economies whilst maintaining diversity in its cultures and languages. Such initiatives included references to language policy aimed at developing multilingualism and plurlingualism (for an in-depth account of European policy initiatives, see Marsh, 2002 and Marsh, 2013). However, at the same time there was a perceived "delivery gap" between education and student performance in foreign languages which presented itself as a barrier to economic competitiveness (Marsh, 2002: 9). Marsh states that for languages to thrive, the core conditions of "need and use" must be in place (2002: 49). These must be evident within the classroom context for students to gain a perspective of their own learning. There was concern within the institutions of Europe that at a time where unity was on the agenda, the citizens of Europe, and alarmingly, its youth, did not appear to be equipped with the necessary skills to be able to communicate.

A reaction to this was what was to become a mission of the European supra-national institutions – to encourage its citizens to become multilingual. This was laid down in

1995 as an objective of the European Commission's white paper, ′Teaching and Learning: Towards the Learning Society':

> Proficiency in several Community languages has become a precondition if citizens of the European Union are to benefit from occupational and personal opportunities open to them in the border-free Single Market. This language proficiency must be backed up by the ability to adapt to working and living environments characterized by different cultures.
> Languages are also the key to knowing other people. Proficiency in languages helps to build up the feeling of being European with all its cultural wealth and diversity and of understanding between the citizens of Europe.
> Multilingualism is part and parcel of both European identity/citizenship and the learning society. (1995: 47).

Strategies to achieve this were also suggested, namely starting foreign language learning in pre-school, and studying certain subjects in the first foreign language in secondary schools. Multilingualism became firmly entrenched on the agenda when the European Commission declared its commitment to this ideal at the March 2002 Barcelona European Council where it was announced that "Every European citizen should have meaningful communicative competence in at least two other languages in addition to his or her mother tongue" (MT + 2) from an early age (2003: 4). This later became part of the Action Plan 2004 – 2006, 'Promoting Language Learning and Linguistic Diversity'. This was considered an ambitious and according to some, utopian or idealistic objective for the time (Wolff, 2002: 48; Marsh, 1998: 53). A European Quality Label was created as an incentive to educators to devise innovative means of developing foreign language learning. MT + 2 is one way of realising the European ideal of unity in diversity as citizens are encouraged to expand their linguistic horizons by learning an additional two languages in order to communicate on a broad European scale. With increased European expansion and more mobility, there is further need for citizens to possess functionally linguistic skills.

The reaction of member states to MT + 2 was varied. This included lowering the onset of foreign language learning to primary schools to provide for more year-on exposure, though in some cases (Portugal included) this trend led to the reduction in the hours allocated to foreign languages in lower and upper secondary schools. However, early language programmes are not always effectively organised in relation to foreign language teaching in the other cycles of compulsory education and other areas of the

primary curriculum. At most, they can help develop positive attitudes to the language and motivation to learning (Muñoz, 2002: 35) though this is dependent on quality, meaningful exposure. The reality in the Portuguese context is that many programmes are poorly structured, under-resourced or resourced with inappropriately qualified teachers without fixed-term contracts, are optional, lack coherent national syllabi, and are tagged on to the end of the school day as 'extra-curricular' activities with all the negativity that that brings with it. Such programmes have indeed backfired with poor quality provision and resulted in negative attitudes towards foreign languages.

Operationalising the European vision of MT + 2 was always going to be challenging with limited curricular time and human resources. As Marsh (2002: 52) states, "Put simply, to convert the rhetoric on linguistic and cultural diversity into practical action, an extra means of delivery would need to be found which would complement existing language teaching, yet enhance the scope and breadth of language learning". What was needed was something that did not compromise on curricular time, delivered on foreign language learning and provided much needed 'functional environments' for language to be used (de Bot, 2002: 31; de Graaff *et al.*, 2007: 604). It was understood that providing more of the same in terms of foreign language lessons was not necessarily the solution. There needed to be more pragmatic use of the language, not simply more knowledge of it, and one which suited the new generation of learner (Marsh, 2003: 2).

1.2. Mindsets of the new generation of learners

The new generation of learners are digital natives who are used to getting instant fixes from their freshly acquired knowledge. Technology has greatly impacted on the way such learners process and use information (Asikainen *et al.*, 2010: 8). This is the mindset of Generation Y (born between 1982 and 2001) and the orientation of Generation C (born between 2002 and 2025). Young people nowadays need a broad range of competences to deal with the information overload this world beams out at them, and which they absorb at a rapid pace. They need to be able to understand it, analyse it, evaluate it, and use it. In other words, they need to be able to think about it critically. Fleetham (2003: 6) sums this up by saying that:

> Global trends in the way we work, relax and learn demand changes in young people. (…) In our evolving world, the ability to think is fast becoming more desirable than any fixed set of skills and knowledge. We need problems solvers,

> decision makers and innovators. And to produce them, we need new ways to teach and learn. We need to prepare children for their future not for our past.

We may add to Fleetham's words, that we need to prepare young people for the present. It's not just about shaping the future, it's about shaping 'now'. Immediacy of use is the difference. The youth of today belong to a *learn-now, use-now* generation, such is the pace at which the present unfolds. Those of us responsible for educating young people have not only to keep up with that pace, but also set it. We need to prepare learners to meet the demands of the world they are living in and that means changing the way we think about education and more specifically, foreign language education. We need to get more out of it, make it go above and beyond the language, make it more thought-provoking. And for this, we need to help develop *thinking skills* or as Fisher (2010: 374) puts it:

> the human capacity to think in conscious ways to achieve certain purposes. Such processes include remembering, questioning, forming concepts, planning, reasoning, imagining, solving problems, making decisions and judgements, translating thoughts into words and so on.

Marsh (2006: 36) suggests that both Generations Y and C are also fostering "bicultural identities" where the first language is used for local communication, and English, in particular, for global communication. Such identities are fuelled by the new 'spaces' young people operate within. In many parts of Europe, English is already used extensively in localised contexts (English words adopted by other languages; increased use of English in local advertising media, for example). As such, it is considered more and more a "near universal skill" (Graddol, 2006: 15) and "basic commonplace competence" (Asikainen *et al*., 2010: 5). It is believed that there is a "chasm" between the new generation of learner and language education (*Ibid*.: 8).

Traditional foreign language teaching methods have focused on form at the expense of authentic use of language. Referring to a "methodology game", Soetaert and Bonamie (1999: 2) open up the gaps in cherished approaches which have valued "products and knowledge" at the expense of skills and processes. The former tend to be areas which are tested, and to a large extent determine the 'content' of teaching. The Communicative Approach went a considerable way to closing the gaps though teachers underestimated the fact that communication was about real content in authentic contexts which are

difficult to simulate in the classroom (Coyle *et al.,* 2010: 5). Heavy focus on language form and little on practical use leaves learners with the "nuts and bolts" but no opportunity to put theory into practice (Marsh, 2000: 3; Coyle *et al*., 2010: 11). Many students struggle with the nuts and bolts and cannot see the point of learning them. After years spent learning the language, many young people leave school as false beginners who find they cannot use the language effectively in real-life situations because they have never been prepared or given opportunities for this (Marsh, 2000: 4; Wolff, 2005: 10; Ting, 2010: 5). Young people are finding they can learn as much or more on their own. They simply do not buy the "transactional foreign language topic-based study under the guise of communication" any more (Coyle, 2006: 1). Constantly recycling knowledge and the same 'topics' in foreign language programmes has left learners uninspired. It is irrelevant and no longer works for them. Spaces, dynamics and perspectives have changed and are at odds between generations. Born into a globalised world, the young generation already has a notion of languages as tools for learning (for Internet use, for example) than as subjects in themselves (Marsh, 2002: 59). Foreign language education has not kept pace with the changing mindsets of those in the classroom. It can also be argued that teacher education has not prepared teachers for such fast-changing realities. Instead, it has been caught up in an awkward cycle of shifting circumstances, which have left it, now more than ever, reliant on dialogue with practitioners in schools. Teacher education must be a reciprocal activity between school and faculty if it is to develop an appropriate knowledge base for the profession, as well as nurture and manage change in practices.

2. Internal forces: Critiquing foreign language teacher education

For many years the content of teacher education programmes uncritically favoured a knowledge base which constituted theoretical language-based approaches to teaching espoused on courses, and implementation of singular 'best method' during teaching practica in schools. This transmissive approach to teacher education pre-supposes that knowledge can be 'packaged' in one place and delivered, somewhat uncritically, in another (Nunan and Lamb, 1996: 120; Freeman and Johnson, 1998: 399; Wodlinger, 1999: 235; Wright, 2010: 273). It assumes that teaching is a simple process of learning what to teach and how to teach it. Burns and Richards (2009: 3) refer to this as "knowledge about" and "knowledge how". Knowledge about or content knowledge has formed the core curriculum of teacher education courses and has generally consisted of

language analysis, discourse analysis, phonology, curriculum development and methodology. It has been heavily influenced by the disciplines of applied linguistics and cognitive psychology. The focus and concern has been more on what teachers need to teach rather than 'learning teaching'. Richards (1987: 210) talks of the difficulties inherent in teacher education programmes that focus on training procedures and observable techniques alone as opposed to those which focus on understanding teaching. He suggests that "the intent of TESOL teacher education must be to provide opportunities for the novice to acquire the skills and competencies of effective teachers and to discover the working rules that effective teachers use" (*Ibid*.: 223).

Assumptions of what teachers need come from scientific research conducted into what learners need, and practices which cater for these needs and yield positive results. However, this type of research has not always been conducted by classroom teachers. Freeman (2001: 73) refers to this as "research driven" as opposed to "practice driven" knowledge. The content of foreign language teacher education courses had remained static and locked in tradition for many years without proof that it actually worked for teachers themselves (Wallace, 1991: 12). There was little research about teachers and their learning and understanding compared with that about learners upon which the content of many programmes was based. Such a lack of foundation in research drew criticism from within the profession, many of whom were disillusioned and frustrated at its lack of grounding and vision (Richards, 1987; Freeman and Johnson, 1998). This brought into question the professionalisation of foreign language teacher education as lacking epistemological grounding of its core focus, *the teacher*, and Johnson's (2009: 20) claim that "L2 teacher education is something we have done rather than something we have studied".

Much of the internal professional dissatisfaction with foreign language teacher education came from its disregard for the teacher. Critical views focused on the need to focus on the teacher, and *a-priori* teacher knowledge, in particular, as central to teacher education programmes. There was little or no regard for what student-teachers brought to their teaching courses in the form of their own beliefs, values, knowledge of teaching and learning, or of what they learned and how this affected their thinking in practice. In addition, there was little consideration of the school context as a learning environment for student-teachers and one which would affect their perceptions of teaching. It was

what others believed teachers needed to know and what they could be taught to do. It was competency based and technical, and according to Freeman and Johnson (1998: 399) largely "ignore[d] and devalue[d] individual experiences and perspectives". These authors state that teachers had been seen as "conduits to students rather than as individuals who think, and are learning, in their own right" (*Ibid.*: 399).

The seminal articles by Richards (1987), Freeman and Johnson (1998) and Freeman (2001) exposed the 'dilemma' of teacher education and the need for a reconceptualisation of its knowledge base. It was disoriented, inadequate and out of touch with those, whom by definition of its label, it professed to serve. This 'crisis' coincided with the impact of globalisation and a new economic and political agenda bringing with it fresh interest in foreign languages as important tools to facilitate global communication. This resulted in a new premium on the English language and English language teacher education across the world. The dissatisfaction with the existing limited knowledge base of teacher education and the new global order resulted in a new agenda for foreign language teacher education. Thus, influential factors driving this new agenda were both internal, from within the profession, and external, and have changed the landscape of foreign language teacher education in most parts of the world.

3. Changing landscapes in foreign language teacher education

In the latter part of the twentieth century and the beginning of this current one, critical perspectives on the state of foreign language teacher education began to emerge in simultaneous fashion with suggestions and illustrations of alternative practices. State-of-the-art literature from that period documented these changing perspectives and practice within the profession (see Richards and Nunan, 1990; Nunan and Carter, 2001; Burns and Richards, 2009; Vélez-Rendón, 2002; Wright, 2010). Freeman (2009: 14) depicts these changes as a "widening gyre of the scope of second language teacher education".

In the 1990s, scholars began to put labels on teacher education which variously described its content and principles. After identifying four paradigms of teacher education in colleges of education in the late twentieth century, as "(1) behavioristic, (2) personalistic, (3) traditional-craft, (4) inquiry-oriented", Kincheloe (1993: 195) constructed a profile of the "post-formal practitioner" who is "inquiry oriented",

"socially contextualized and aware of power", "grounded on a commitment to world making", "dedicated to an art of improvisation", "dedicated to the cultivation of situated participation", "extended by a concern with critical self- and social reflection", "shaped by a commitment to democratic and self-directed education", sensitive to "pluralism"; "committed to action", and "concerned with the effective dimension of human beings" (*Ibid.*: 201-203).

Crandall (2000: 34-36) identified four trends in foreign language teacher education in the 1990s. These were (1) "a shift from transmission, product-oriented theories to constructivist, process-oriented theories of learning, teaching and teacher-learning"; (2) "a focus on situated teacher cognition and practice"; (3) "a recognition that teachers' prior learning experiences play a powerful role in shaping their views of effective teaching and learning and their teaching practices"; (4) "respect for the role of teachers in developing theory and directing their own professional development through collaborative observation, teacher research and inquiry, and sustained inservice programs". Also focusing on studies undertaken in the nineties, Vélez-Rendón (2002) exemplified a paradigm shift which placed the teacher at the centre of constructing their own theories and understandings of themselves as teachers. In her review of studies, five themes emerged which she uses to frame the current state of second language teacher education and provide the "big picture" of language teacher development (*Ibid.*: 495). The themes are: (1) "the role of teachers' previous experiences"; (2) "the role of teacher education programmes and pre-service practices"; (3) "teachers' beliefs and instructional decision making"; (4) "the role of reflection"; (5) "the role of collaboration" (*Ibid.*: 459-461). She stresses the lack of consensus on the core knowledge base of language teacher education and the challenges teachers face today which require many more competences than 20 years ago. She offers perspectives of the teachers' knowledge base which are discussed according to subject-matter knowledge and pedagogical content knowledge. She ends with a proposal for a reflective approach to language teacher education which provides the opportunity to acquire: "theoretical underpinnings", and "analytical and reflective skills" to connect theory to practice in teacher theory building; more self-awareness opportunities through peer and self observation and journal writing; field experiences; classroom observation whereby teachers become "ethnographic observers" using specifically focused observation tasks; opportunities to share their observations; and action research.

Wodlinger (1999) states that there are three essential components to effective pre-service education programmes which are centred on developing reflective practice. These are theory, practice and self. He insists that "the development of teachers' professional knowledge and skill cannot be separated from the experiential insights that constitute developing teachers' repertoires of personal constructs or theories of action" (*Ibid.*: 235).

Accounts of the new territory of language teacher education emerging from the 1990s point to a consensus of similar themes in this current century. Wright (2010:273) identifies new foreign language teacher education as having the following characteristics: (1) "an emphasis on student teachers' learning to teach and becoming a thinking teacher"; (2) "reflective activity programmed into learning experiences, often with written records in the form of journals or diaries"; (3) "commitment to student-teacher inquiry – into one's own beliefs and narratives, and into the professional contexts of teaching and learning for which they are being prepared"; (4) "an appropriation of pedagogies from adult education which involve learning from experience".

A significant attitudinal and concrete difference in the new knowledge base is the value attached to teachers' perspectives as sources of knowledge for teacher education programmes which substantiate the research base of foreign language teacher education. As Wallace (1991: 3) points out, "[O]ne of the crucial factors in the success of learning anything depends on *what the learners themselves bring to the learning situation".* The realisation that teachers could be a vital source of knowledge for the teacher education programmes has been given weight from studies and accounts of teacher learning and cognition (Borg, 2003; Johnson, 2006). How teachers shape their teaching is influenced by a myriad of issues which includes their own experiences as students, their initial beliefs and values, their teaching course and their own experience of teaching in specific and unique contexts. These factors come into play whenever a teacher teaches. Should an individual teacher experience teaching different subject teaching and in different contexts, the accumulation of this experience is all the more powerful. It leads them to reshape and reinterpret their understanding of teaching, a continual process in which the teacher is molding or 'negotiating' their identity. In short, it is a complicated web of influences that is never-ending and what being a reflective teacher is about. Edge (2011:

10-12) suggests this implies a working approach to teacher learning which involves elements of "copying", "applying", "theorizing" and "reflecting" in a context of action. These, he says, are "ways of doing", which he compliments with "ways of being" "methodological, technical, theoretical, intellectual and pragmatic". This is all part of a long-term developmental process.

A fundamental part of teacher learning is the teacher's own reconceptualised view of their practice as a result of their construction of new knowledge and a theorisation of their own practice. It is not so much a question of applying theory in practice, but of theorising their own practitioner knowledge within a community of practice. This has been kept somewhat dormant in teacher education as has an articulation of teacher thinking in practice. Johnson (2006: 239) exposes an "epistemological gap" between the traditional preparation of teachers and how teachers actually learn teaching and carry out their work. She suggests that for teacher education to redress this gap and be more consistent with teacher thinking, it must confront a number of challenges such as, "theory/practice vs. praxis"; "the legitimacy of teachers' ways of knowing"; "redrawing the boundaries of professional development", and "located teacher education" (*Ibid.*: 239-247). This is a significant shift from a competency-based and behaviourist view of teacher education to one that is constructivist. It is acknowledged that teacher learning is a "socially negotiated" process "contingent on knowledge of self, students, subject matter, curricula and setting" (Johnson, 2009: 20). As well as teacher knowledge and cognition, contexts have come to be seen as major areas of influence on teacher learning rather than places to apply theory (Freeman, 2009: 14). The shift towards the centre of the teacher as co-provider of knowledge drawn from their own contexts and instigator of their own professional development has been further enhanced by the rise in acceptance of the teacher as a legitimate investigator of his/her own classroom practice. Action research has become an accessible research paradigm for teachers enabling them to legitimise their own contextualised investigations (see Kemmis and McTaggart, 1998: 11; Burns, 1999; Edge and Richards, 1993; McNiff, 1988; Wallace, 1998). In simple terms, action research is "teacher-initiated classroom investigation which seeks to increase the teacher's understanding of classroom teaching and learning, and to bring about change in classroom practices" (Richards and Lockhart, 1996: 12). Though not without its problems, which are mainly related to teacher mis-conceptions about the nature of action research and the time available to conduct it in the teaching context,

action research has contributed greatly to understandings of teacher thought and action in context.

4. The importance of teacher development

Much of what has constituted foreign language teacher education in recent decades has hinged on whether it is perceived as consisting of training in knowledge and skills about teaching or personal and professional development. The former is focused on what teachers need to know about teaching and their learners, and the latter on what teachers need to know and learn about themselves.

Development is often described as something that happens to experienced teachers in courses designed to utilize their wisdom, understanding and experience of classroom practice. Such courses also encourage teachers to consider other perspectives or experiment with new ideas, thus further developing their repertoire of skills as well as deepening their understanding of teaching and themselves as teachers (Richards and Farrell, 2005: 4). These authors see development as involving a deepening understanding of theories and practices, beliefs and attitudes as well as critically examining and exploring new issues, methods and trends within the school context. In this sense, development is both personal and professional.

Rossner (1992: 4) cited in Head and Taylor (1997: 4) suggests that teacher development for experienced teachers has four key characteristics which are related to individual needs and wants, new experiences and challenges, development on other personal levels, (for example confidence/assertiveness), and is not determined by what others think teachers need. Teacher development is therefore 'bottom-up' in the sense that it is driven by teachers themselves whether they are intrinsically or extrinsically motivated (Richards and Farrell, 2005: 4; Burns and Richards, 2009: 2). Here, there is a strong sense of responsibility towards self-improvement.

In order for there to be development, there has to be self-awareness. Larsen-Freeman (1983: 266) cited in Bailey *et al.* (2001: 23), says that in order to make "informed choices", teachers need "heightened awareness", "a positive attitude that allows one to be open to change", "various types of knowledge needed to change", and "the development of skills". In short, they need awareness, attitude, knowledge, and skills.

Awareness cannot be taught in the same way that the techniques and skills of teaching can, but teachers can be guided and self-development nurtured. Training and development can be seen as complementary aspects of a more holistic form of teacher education or indeed as its goals (Head and Taylor, 1997: 9; Richards and Farrell, 2005: 3). Head and Taylor, (1997: 10) call this "external knowledge or skill accompanied by the internal insight". Edge (2007: 9) emphasises the importance of this awareness in his understanding of teacher development as self-development:

> [W]e each have in us the potential to be the best teacher that we can be, but the best teacher I can be is not to be measured against the best teacher that someone else can be, certainly not in terms of classroom method or methodology. What I need to develop is a sense of my strengths and weaknesses, my own growth potential, a sense of myself as I work with other people. Through this growing self-awareness, I shall be better able to ask useful questions about learning which will lead me on to an increased awareness of how I, personally, can help other people to learn. (Edge, 2007: 9).

The paradox inherent in this idea is that self-development does not take place in isolation. The sense of development and improvement grows through interaction with others - colleagues and students. Conscious reflection on this process consolidates awareness which brings about growth. This is empowering to teachers whether beginning or experienced.

All of the above considered, and in the words of Burns and Richards (2009: 1) language teacher education has evolved a "changed understanding of itself". The new paradigm emerging this century is one which is, to varying extents, learner-teacher centred, experiential, developmental, constructivist, reflective and inquiry-oriented. Changes that have taken place within the profession relate to the knowledge base and an acceptance that teachers themselves can contribute to this. In addition, it has been influenced by fields outside the traditional territory of foreign language teacher education, such as action research, experiential and constructivist learning, socio-cultural theory and reflective practice. Furthermore, foreign language teacher education has not been immune to external factors such as the influence of globalisation which has resulted in changes in European educational policy. This has affected the teaching of foreign languages at national levels and further change in teacher education.

5. New directions

The scope of foreign language teaching is now extremely broad. If teacher education is to help prepare teachers for this reality, then it must acknowledge, keep pace with and provide opportunities to develop a wide-range of skills and competences beyond teaching the English language as an individual subject (Graddol, 2006: 15). Language teacher education must acknowledge the following: potential contexts (national and international); the range of learners (younger, and international); and different purposes (specific subject purposes/specific content). A consequence of reflection on the drivers of change in education and foreign language teacher education is that gaps are revealed which prompts a consideration of further action to take. This is considered in the next section in the form of an educational approach believed to be "an ecological professional development in language teaching" (Marsh and Frigols (2007: 33-34) which nurtures the development of foreign languages as well as subject content - Content and Language Integrated Learning (CLIL); and a European vision for foreign language teacher education this century.

5.1. CLIL: A new educational approach

Content and Language Integrated Learning is an educational approach in which a subject content and a foreign language are learned simultaneously (Wolff, 2005: 11; Mehisto *et al*., 2008: 9; Coyle *et al*., 2010: 1). At the time of the European Commission's announcements that the citizens of Europe should be proficient in their mother-tongue plus two other languages, CLIL emerged as "a pragmatic European solution to a European need" for mainstream education making it both inclusive and egalitarian (Marsh, 1998: 53; 2002: 10-11). This type of approach was already successful in the private sector and had gained ground and acclaim in North American immersion schemes. Coyle (2002: 27) views the mainstreaming of CLIL as a European "entitlement" in compulsory education. Muñoz (2002: 36) states that as it may be integrated into the regular mainstream school curriculum, CLIL "may be the only realistic way of increasing the competence in foreign languages of the largest number of young citizens". Wolff (2002: 47) echoes this sentiment describing CLIL as "a realistic and economic concept". He provides a practical illustration of this suggesting that as CLIL would provide the necessary exposure to one foreign language in the CLIL class, less time would be needed for separate lessons in that foreign language, thus providing more time for the introduction of other foreign languages and realising European goals

of developing plurilingualism (Wolff (2002: 47). CLIL has indeed been called “a plurilingual approach” (Marsh, 1998: 53). Coyle *et al.* (2009: 26) sum this up well, “CLIL is not only a pragmatic solution to curriculum delivery but also an essential feature of an entitlement to plurilingual, pluricultural learning, offering cohesion and progression in the language learning apprenticeship”.

Europe quickly latched on to CLIL as a potentially cost-effective solution to the MT + 2 ideal. The approach was theoretically justified in the 1990s on the following grounds:

> Traditional methods for teaching second languages often disassociate learning from cognitive or academic development.
> Language is learned most effectively for communication in meaningful, purposeful, social and academic contexts.
> Integration of language and content provides a substantive basis for language teaching and learning: content can provide a motivational and cognitive basis for language learning since it is interesting and of some value to the learner.
> The language of different subject areas is characterized by specific genres or registers which may be a prerequisite of specific content or to academic development in general. (Marsh, 2002: 60).

European supra-national institutions recognised CLIL as adhering to their vision and goals. Included in the Commission’s Action plan ‘Promoting Language Learning and Linguistic Diversity 2004 – 2006’ is specific reference to CLIL and the benefits arising from it:

> Content and Language Integrated Learning (CLIL), in which pupils learn a subject through the medium of a foreign language, has a major contribution to make to the Union’s language learning goals. It can provide effective opportunities for pupils to use their new language skills now, rather than learn them now for use later. It opens doors on languages for a broader range of learners, nurturing self-confidence in young learners and those who have not responded well to formal language instruction in general education. It provides exposure to the language without requiring extra time in the curriculum, which can be of particular interest in vocational settings. The introduction of CLIL approaches into an institution can be facilitated by the presence of trained teachers who are native speakers of the vehicular language. (European Commission, 2003: 8).

This was further endorsed in the conclusions of the symposium on ‘The Changing European Classroom: The Potential of Plurilingual Education’ held during the

Luxembourg Presidency of the European Union in 2005. The symposium gathered together stakeholders from educational contexts within Europe and engaged them in examining how CLIL could be incorporated within educational systems. It resulted in a set of seven conclusions/recommendations:

1. There is a need for greater public awareness of the benefits of the EMILE[3] [CLIL] approach and the contribution it could make to enhance individual and societal prosperity and social cohesion.
2. The promotion of EMILE [CLIL] could lead to increasing student and workforce mobility, thus reinforcing European citizenship.
3. Promotional bodies at national and EU level would be helpful to contribute towards the introduction, development, coordination and expansion of EMILE [CLIL] throughout the European Union.
4. Specific EMILE [CLIL] training for teachers and educational administrators should be encouraged, including a period of work or study in a country where the target language is generally spoken.
5. Ways of acknowledging EMILE [CLIL] participation of learners at different educational levels are to be investigated.
6. A wide range of languages should be promoted as a medium for EMILE [CLIL] initiatives.
7. The exchange of information and scientific evidence on good EMILE [CLIL] practice should be encouraged at European level. (Council of Europe Press Release 9060/05[4], 2005: 13-14).

The promotion of CLIL by European supra-national institutions is clearly evident in the increasing numbers of references in policy statements and recommendations which have bolstered its profile and legitimacy as an innovative educational approach. European Commission publications include 'The main pedagogical principles underlying the teaching of languages to very young learners' (2006c: 93-94) which makes reference to implicit CLIL provision by integrating the foreign language in simple activities in such as arts and crafts and counting exercises which have long been techniques used at primary level. It mentions that any further commitment would depend on teachers trained in CLIL and suggests including it as a feature of in-service training programmes. Such inclusion, it states, would require "a different teacher profile: a content-oriented language competence and specific methodology" (2006c: 96). The publication, 'Multilingualism: an asset for Europe and a shared commitment' mentions CLIL in its section on 'Effective language teaching' in relation to providing better training for non-

[3] Enseignement d'une Matière par l'Intégration d'une Langue Etrangère (the French acronym for CLIL)
[4] Press release available from: http://www.consilium.europa.eu/uedocs/NewsWord/en/educ/85055.doc

language specialists (2008: 11). Recommendations for CLIL have been accompanied by funding of local and transnational initiatives and projects implementing it in schools (see for example 'European Language Policy and CLIL: A selection of EU-funded projects[5]').

All of this has definitely elevated CLIL to the status of serious European educational phenomenon. Much of the hype surrounding it, the language used to describe it, increasing number of conferences and burgeoning research base, have, as Bonnet (2012: 66) claims led it to be considered "an important facilitator of European integration". It is the idea of integration which makes CLIL not only personally appealing to the new generation of learner, but also to European integration and education itself (Coyle, 2002: 27). It is not surprising therefore, that CLIL is included in the new knowledge base of foreign language teacher education in Europe.

5.2. CLIL across Europe

European institutional funding has also been available for monitoring CLIL activity and disseminating information across Europe. The Eurydice report, 'Content and Language Integrated Learning at School in Europe' (Eurydice, 2006) is both informative of CLIL principles and provision in European contexts taken from national descriptions of Eurydice Network member countries in 2004/2005. This covers pre-primary, primary and secondary education in the public sector and grant-aided private schools. Of the thirty countries surveyed, only six did not register any CLIL provision. One of these was Portugal. In the national description country report for Portugal, lack of CLIL provision is accounted for on historical and geographical grounds (stable borders and a relatively homogeneous population; extreme western end of Europe bordering only one country). In addition, national uniformity (one language) and no compulsory early foreign language provision are also cited. The Eurydice report serves to consolidate awareness of known variables across CLIL contexts in Europe (aims, admission criteria for students, scale of provision, teaching time, subject preference, evaluation, teacher recruitment criteria, amount and type of teacher training). It revealed that the most

[5] European Language Policy and CLIL: A selection of EU-funded projects
http://www.ua.gov.tr/docs/avrupa-dil-%C3%B6d%C3%BCl%C3%BC/finarep_en.pdf?sfvrsn=2

common foreign language in CLIL contexts was English. There was no clear preference for particular subjects in CLIL, and targeted proficiency was mainly in the foreign language.

The most recent published survey of information on foreign languages in Europe is that of 'Key Data on Teaching Languages at School in Europe 2012' (Eurydice, 2012). In this report, Chapter B – Section II is specifically related to CLIL. This section, 'Foreign language provision in the context of CLIL in primary and secondary education' states that CLIL is part of mainstream provision in most countries, exceptions being Denmark, Greece, Iceland and Turkey. This information was provided from data collected in 2010-2011. However, though provision is extensive, it is not widespread across education systems. In three countries it is only operating within pilot projects. Portugal is one of these countries. In twenty-five countries the CLIL medium of instruction is through a foreign language. English, French, German, Spanish and Italian are the most widespread of these foreign languages and correspondingly are the most taught foreign languages in Europe. Regional or minority languages and other state languages are also used in CLIL contexts. The number of languages used to teach CLIL varies. In four countries (Spain, Latvia, the Netherlands and Austria) CLIL provision includes instruction in three languages. Variation in CLIL provision varies widely across European countries for different cultural and political reasons. In the majority of countries there are no specific admissions criteria for students on CLIL programmes (see the publication's Annex 2. pp. 153-160 for detailed information on each country's CLIL provision). There is no indication of the amount of CLIL provision within programmes or which subjects are taught through the foreign language.

5.3. CLIL in Portugal

As yet, there is little officially-recognised CLIL[6] provision in Portugal. That mentioned in the 'Key Data on Teaching Languages at School in Europe 2012' refers to the pilot project 'Secções Europeias de Língua Francesa' (SELF)[7] which involved the

[6] There is as yet little consensus on the Portuguese term for CLIL. In the small amount of literature in the Portuguese context, four acronyms have emerged: EILE – Ensino Integrado de Língua Estrangeira; APILC – Aprendizagem de Conteúdos atravez de uma Língua Estrangeira; AILC – Aprendizagem Integrada de Línguas e Conteúdos; and AICL – Aprendizagem Integrada de Conteúdos e de Língua.

[7] SELF project information at http://www.vizavi-edu.com.pt/uploads/fichespratiques/brochurase0708.pdf

collaboration of the Portuguese Ministry of Education and the French Embassy in Portugal. It began in 2006/2007 and by 2010/2011 involved twenty-five schools in five educational authorities across the country. The schools involved were from lower and upper secondary levels. Schools were able to select one or two non-language subjects to teach from the Portuguese national curriculum through the medium of French. Time allocated to this was 45 minutes per week. An extra 45 minutes of linguistic support for French was also provided. So far there has been no publication of results from the project.

At the time the study of this thesis began, there was no published information about CLIL activity in the state sector in Portugal. Since then, a small amount of information has emerged. In 2011/2012, in conjunction with the Portuguese Ministry of Education, the British Council launched a four-year pilot project known as the 'Bilingual Schools project'[8] in Portugal. The project involves eleven state primary schools in eight school clusters across the country. Part of the curriculum for Social Studies ("Estudo do Meio") in these schools is taught through English by generalist teachers who are supported by English language teachers. Training for these teachers has been provided by the British Council. According to information provided on the British Council's website[9] the project aims:

> to change the way national governments approach language education policy, as well as methods for teaching languages in state schools. (…) The proposed policy change is designed to radically enhance the teaching of English in schools and embed best practice through the delivery of a content-based curriculum.

As yet, no results have been published though communications from coordinators at national conferences indicate positive results. The project has yet to be externally evaluated.

Should CLIL be happening in any other capacity in the state system in Portugal then it is likely that it is at grassroots level as published information is scarce. A search by the author for publications of studies in Portugal retrieved information about 'Project

[8] The project is also known as 'Ensino Bilingue Precose no 1º Ciclo. Information is available from: http://www.dgidc.min-edu.pt/index.php?s=noticias¬icia=106

[9] http://www.britishcouncil.pt/en/programmes/education-society/bilingual-project

English Plus: a CLIL approach in a Portuguese school' (Simões *et al.*, 2013). The project was initiated in the academic year 2010/2011 at the school, Escola Básica 2,3 de Bento Carqueja, Oliveira de Azeméis, which had been involved in the SELF project, and as a result of this positive experience had decided to embark on CLIL in English. It involved one class of lower secondary students (7th year) who were taught History through English for 45 minutes per week. The History teacher was a native speaker of English. The remaining 45 minutes allocated this subject each week were used to teach History in Portuguese. Students were given linguistic support from an English language teacher during Project Area classes. The English language teacher also provided support during History lessons. The project was monitored by researchers from CIDTFF/LALE[10] at the University of Aveiro. Data were collected from questionnaires and interviews with stakeholders (students, two teachers and parents). Results indicated overall positive appreciation of the project especially the development of students' "linguistic and communicative competences, attitudes towards languages and Otherness, and increasing knowledge of History; teachers' professional development in school activities; and the creation of interdisciplinary synergies within school and implementation of networks and partnerships with society" (*Ibid.*: 31). Continuation of the project is unknown as in the academic year 2012/2013, there was a set-back when the History teacher was placed in another school.

It is interesting that despite a dearth of CLIL projects in compulsory education in Portugal, English Medium Instruction (EMI) is becoming increasing adopted in institutions of higher education in the country with some under-graduate and post-graduate degrees given entirely in English. Motivation for such institutions to offer courses of this type come from the need to keep pace with internationalisation of higher education across Europe and the ability to attract foreign students and financial investment. In the near future, this may well have a cascading effect on school systems that will need to better prepare students for such a reality on home soil.

[10] Centro de Investigação Didática e Tecnologia no Formação de Formadores/Research Centre Didactics and Technology in Education of Trainers: Laboratória Aberta para Aprendizagem de Linguas Estrangeiras/Open Laboratory for Foreign Language Learning, University of Aveiro, Portugal

6. Teacher education as driving and responding to change

Professionals within and beyond the teaching profession have made attempts to both embrace and mobilise change in foreign language teacher education. 'The European Profile for Language Teacher Education: A Framework of Reference' (Kelly *et al.,* 2004) provides guidelines on the structure, knowledge and understanding, strategies and skills, and values which a language teacher education for the 21st century should embrace and promote. Based on the expertise of policy makers, educators and the findings of eleven case studies of European teacher education institutions across Europe, it presents 40 key elements which language teacher education could comprise. It claims to "focus on innovative teacher education practices and ways of promoting cooperation, exchange and mobility among the new generation of Europe's language teachers". This is a comprehensive framework which incorporates many of the reconceptualisations of the new agenda for foreign language teacher education. One such element is "Training in Content and Language Integrated Learning", recognised as a "growing area in language teacher education across Europe", (2004: 77). It states benefits for trainee foreign language teachers even if their future intentions are not to teach in CLIL contexts. Such benefits are that it "improves their language competence; encourages more comprehensive use of the target language in non-CLIL classes; and gives teachers ways of raising social, cultural and value issues in their foreign language teaching" (*Ibid*.: 77). Added to this is improved interdisciplinary cooperation. The document cautions at the possible lack of CLIL schools where trainees can teach, and suggests that where this is the case, cooperation between teacher education institutions and local schools could be established bringing about this change. It also acknowledges the limited time on teacher education courses and suggests that in-service teacher education courses may provide a solution. Despite being highly prescriptive, the framework is "a voluntary frame of reference" (2004: 19) and is an interesting, concerted attempt to provide a potential 'structure' to improve the quality of foreign language teacher education in Europe which can be adapted to national needs. In addition, the 'European Portfolio for Student Teachers of Languages: A reflection tool for language teacher education', (Newby *et al*., 2007), includes CLIL as one of its 'can do' statements for planning of lesson content for other subject content.

The European Commission communication, 'Improving the Quality of Teacher Education' (2007) is a further attempt to develop and provide quality assurance in

teacher education across Europe. It states that quality teaching is a determining factor in effective competitiveness in a globalised world. It also highlights concern at a lack of progress in education and training in recent years. This is based on statistics about students and teacher education practices. Student figures relate to lower numbers of school leavers and poor results of those completing compulsory education. Teacher education practices across Europe have, by and large, not adapted to or have been inconsistent in their response to teaching within the new global, knowledge-based society. There is little coherence between initial and in-service professional development programmes in terms of building on skills and knowledge, and few incentives for teachers to invest in their own professional development. This document acknowledges the complex nature of teaching and the new demands teachers face in rapidly changing local and European contexts in terms of acquiring new skills and competences:

> As with any other profession, teachers also have a responsibility to extend the boundaries of professional knowledge through a commitment to reflective practice, through research, and through systematic engagement in continuous professional development from the beginning to the end of their careers. Systems of education and training for teachers need to provide the necessary opportunities for this. (European Commission, 2007: 5).

The European Commission report into 'Education and Training 2010: Three studies to support School Policy Development Lot 2: The Teacher Education Curricula in the EU' (2009) revealed wide variation in the approaches of individual member states to teacher education. Of its recommendations, that of teachers' lifelong learning is particularly significant for the study of this thesis. This is seen on a continuum of developing skills and competences from initial to in-service teacher education and beyond. Deciding which should be developed at these stages is very important to establishing a coherent, progressive teacher education programme along that continuum.

Summary

This chapter has consisted of a reflection on some of the key factors which have influenced 'change' in foreign language teaching and teacher education, and a consideration of further change in this field. In light of the internal and external influences mentioned so far, it would appear that a foreign language teacher education of the twenty-first century is one that should incorporate aspects of a new agenda, one

which is learner-teacher centred, experiential, constructivist, reflective and inquiry-oriented, and includes a consideration of European policy initiatives for multilingualism and foreign language teaching. It is also one which is open to providing teachers with opportunities for experimentation with new educational approaches such as CLIL which may contribute to positive change for them, their students and the wider society. In subsequent chapters an in-depth examination of CLIL is provided as a precursor to a discussion of how this educational approach may be operationalised within a reflective model of foreign language teacher education.

Chapter 2

Understanding Content and Language Integrated Learning (CLIL)

Introduction

So far in this thesis the new knowledge base of foreign language teacher education has been discussed and the need for it to address teachers and learners in the 21st century has been acknowledged. 'Content and Language Integrated Learning' (CLIL) has been hailed as a modern educational approach that has the potential to address the needs of the new generation of learner as well as facilitate European policy on multilingualism (MT + 2). As a recent and still emergent part of the new landscape of foreign language teaching and teacher education, CLIL merits analysis of how and why it reached this place. This present chapter problematises CLIL as a potential change agent in foreign language education. It takes CLIL as a unit of analysis, and surfaces and unravels the complexities that surround this phenomenon. The chapter seeks to answer the question: What do teachers and teacher educators need to know about CLIL? It does this by addressing areas considered important to those who are or may become involved in CLIL. These areas are particularly relevant to the study in this thesis and its unique context which involved the implementation of CLIL in the teacher education programme for teachers of English as a foreign language to young learners in primary schools in Portugal where there is very little CLIL activity. The areas are: the definitions and principles on which CLIL is based; its unique methodology including materials and task design, assessment; benefits and concerns for both learners and teachers; the similarities and differences between English language teaching (ELT) and CLIL; ELT and CLIL for young learners; implementing CLIL; teacher education for CLIL; and research perspectives. All areas are key to understanding what CLIL is and what competences are required of those involved for it to work *in situ*. The understanding of CLIL presented in this chapter is still unfolding as is the approach itself. CLIL is not a static phenomenon, but rather a flexible one which continues to mold and transform itself as it emerges in new contexts.

1. The essence of CLIL

This section charts how CLIL has been interpreted over the years owing to its different forms and labels associated with it. Comparisons are made with content based language instruction (CBI), and immersion and bilingual education. Emerging from this is a definition of CLIL as a unique European educational approach. Underlying theories which CLIL draws on and which inform its principles are examined. The key issue of

language is addressed in relation to form, meaning and use. The section ends by outlining the benefits of CLIL and problematic issues which surround it.

1.1. The scope of definition

It has already been established that CLIL came about as a result of the convergence of ecological factors which identified a void in educational practices, particularly those related to foreign language learning which were in need of filling in a way that was in keeping with the times. The conditions which have paved the way for CLIL have also shaped what it is and what has made it distinct from other educational approaches with which it is often associated. Broad definitions of CLIL abound such as that from the Eurydice publication, 'Content and Language Integrated Learning at School in Europe':

> CLIL is used as a generic term to describe all types of provision in which a second language (a foreign, regional, minority language and/or another official state language) is used to teach certain subjects in the curriculum other than language lessons themselves. (Eurydice, 2006: 8).

There are also more specific variations on the definition with some scholars highlighting a 'dual-focused' approach on content and language implying an "innovative fusion" of pedagogies (Coyle *et al.*, 2010:1), while others incorporate objectives "in content and language mastery to pre-defined levels" (Maljers *et al.*, 2010 cited in Marsh *et al.*, 2012: 11). Put simply, "CLIL involves learning to use language appropriately whilst using language to learn effectively" (Coyle, 2006: 9).

Marsh (2002: 57-58) lists some thirty-three different terms related to teaching and learning through an additional language in Europe throughout the 1980s and 1990s. It was felt that a new term was needed which encompassed the numerous varieties across the continent, but also embraced the distinctiveness of the integrated approach. The term Content and Language Integrated Learning (CLIL) or EMILE (*Enseignement d'une Matière par l'Intégration d'une Langue Etrangère)* with which it is frequently cited, was adopted in the mid 1990s as a result of forum discussions among specialists, and was endorsed by the European Commission and the European Network of Administrators, Researchers, and Practitioners, EuroCLIC as:

> a generic umbrella term which would encompass any activity in which a foreign language is used as a tool in the learning of a non-language subject in which both language and the subject have a joint curricular role in the domain of mainstream education, pre-schooling and adult lifelong education. (Marsh, 2002: 58).

The terms 'generic' or 'umbrella', so often cited, encapsulate, in essence, what CLIL is. CLIL covers a wide range of practices and terms (Dalton-Puffer *et al*., 2010: 3). It also spans educational levels and sectors. The flexibility of CLIL allows for different models within any given curriculum. Marsh (2002: 65) suggests there as may types of CLIL as there are reasons for its delivery. These, he says, "hinge on cultural, environmental, linguistic, non-language content and learning objectives". Mehisto *et al.* (2008: 13) present numerous types of CLIL from language showers to double immersion, from short-term, low-intensity exposure to high-intensity, long term programmes. The terms 'strong' and 'weak' or 'soft' forms of CLIL are also used. These relate to amount of exposure (Reilly, 2006: 64). The most flexible of CLIL models is the 'modular type' where parts of subjects or subject modules are taught through the additional language. Ludbrook (2008a: 20) states that almost all CLIL teaching is done on a modular basis. As well as safeguarding L1 capacities, the modular approach also allows for more than one additional language to be used should that be desirable (Baetens Beardsmore, 2002: 25).

As a generic term, CLIL provides a meeting point for those with different interests from language to content focus or both. These interests or foci are often placed on a continuum which reflects the various 'orientations' with extreme positions of language and content at opposite poles. Met (1999: 2-5) presents a similar continuum to reflect the range and focus of Content-Based Instruction (CBI), an approach that has been proliferating in the U.S since the 1980s. CBI has not been without challenge in defining itself owing to its various interpretations of content and degree of integration of content and language similar to CLIL. The opposite poles of Met's (1999: 5) "Continuum of content and language integration" are "content-driven" and "language-driven" teaching. At the extreme end of "content-driven" is total immersion, and at the opposite end and pertaining to "language-driven" are "language classes with frequent use of content for language practice". In Met's continuum, the "Adjunct model" positioned at the centre of the continuum is one in which language and content are both the goals of learning (*Ibid.*: 5). Such continua are useful for programme developers, providing them with

foci, aims and an indication of the teaching competences required. There are many similarities between varieties of CBI and CLIL. Clegg (2006: 22-24) says that CLIL includes Content-Based Language Teaching within its scope. He sees content-based teaching as language teaching and situates it at the opposite end of a continuum from L2 medium subject teaching. Brinton *et al.* (1989: 2) state that "content based instruction aims at eliminating the artificial separation between language instruction and subject matter classes which exists in most educational settings". Stoller's (2004: 261) definition of CBI as including "its dual commitments to language and content-learning objectives" resonates with the often used term 'dual-focused' in reference to CLIL. Indeed this same author alludes to CLIL as a European construct of CBI and complements other similar initiatives across the world which are demonstrative of a growing global interest in combining language and content in educational settings. Richards and Rodgers (2001: 204) place CBI within the remit of second language teaching though state that the main focus of such teaching is the content and not language.

1.1.1. CLIL and immersion education

CLIL is frequently defined against a backdrop of immersion education, and Canadian immersion in particular. According to Cummins (1998: 34) immersion involves the process of "immersing students in a second language (L2) instructional environment". There are notably three types of immersion: early total, early partial, and late immersion. Canadian immersion began in the mid-1960s as a grassroots movement to provide English-speaking children with a means of achieving proficiency in French, Canada's other official language (Genesse, 1994: 2). Since this time a vast amount of research has been conducted in this context yielding very positive results which became of interest to the European context. North American immersion has been cited as the precursor of CLIL, the success of which with regard to language, subject content, cognitive ability and attitudinal levels is often cited in connection to the potential of CLIL (Pérez-Cañado, 2012: 316-317). However, this does not automatically mean success in another context especially one as diverse as Europe (Van de Craen, no date: 1). In the much smaller Canadian context, variables are fewer especially with regard to location and operationalisation. What Canadian immersion has offered CLIL is a new awareness of alternative methodologies and techniques, and the potential for new principles and pedagogies to develop. Cenõz *et al.* (2014) caution that the stance of

some scholars related to distinguishing CLIL from immersion education could be detrimental to CLIL development as there is much to be learned from this context that is indeed transferrable. They claim that while CLIL may be "historically unique" in Europe, it is not "pedagogically unique" and actually shares many similarities with CBI (*Ibid*.: 2). Though the term 'immersion' has been used in CLIL, it has not sat well in some parts of Europe where it is viewed with negative connotations owing to sociopolitical ideologies, in addition to having very differing reasons for implementation across the varying contexts (Coyle, 2007: 544-545).

Dalton-Puffer (2008a: 140) suggests that CLIL parallels Canadian immersion as in both types of context children are taught non-language subjects usually in a "prestigious language" because of parental initiatives. However, they also differ with respect to the language of instruction which in immersion contexts is usually another official language of the country. In addition, teachers in immersion contexts are native speakers of this language whereas in CLIL contexts they tend to be non-native speakers. Lasagabaster and Sierra (2009b: 370-373) highlight more differences which include teaching materials and language objectives. In CLIL contexts, materials tend to be abridged whereas in immersion they are not and are aimed at native-speakers. Language goals in immersion are native-like proficiency while in CLIL this is "far-reaching" (*Ibid*: 372). Lasagabaster and Sierra (2009b) warn that such differences need to be acknowledged in order to avoid CLIL programme objectives being unrealistic, extra pressure put on teachers and students, researchers reaching "misguided" conclusions, and stakeholders making the wrong decisions (*Ibid*.: 369). Mendez and Pavón (2012: 574-575) shed further light on distinctions between immersion and CLIL stating that CLIL, which they say is synonymous with "additive dynamic bilingualism", "protects and favours the development of the mother-tongue and considers it an important learning tool; academic content is not taught exclusively through the foreign language; and the foreign language is also taught as a parallel subject". Muñoz, (2002: 36) states that CLIL offers less intensive contact with the target language than immersion and aims at achieving "functional competence". It seems that for every potential area of distinction, there are exceptions or indeed contradictions which make any claim dubious (for a thorough debate on this issue, see Cenoz *et al*., 2014: 248-254 and Dalton-Puffer *et al.,* 2014). That said, although there are differences between immersion and CLIL, stakeholders and scholars alike do refer to the positive evidence of learning in immersion

programmes as justification for implementing CLIL (for a review of immersion education see Genesse, 1994 and Cummins, 1998: 34-47).

1.1.2. CLIL and bilingual education

"Increasingly the world seeks to develop bilingual citizens who function within the plurilingual dynamics of the twenty-first century" (García, 2009: 55).

Another area of confusion in CLIL is its association with bilingual education. García (2009: 51-55) presents four models of bilingualism: "subtractive", "additive", "recursive", and "dynamic". Of these, CLIL most resembles her description of "dynamic" bilingualism. This, she states, is similar to the European use of the term "plurilingualism", "referring to the understanding that language use in the twenty-first century requires differentiated abilities and uses of multiple languages as citizens cross borders either physically or virtually" (*Ibid.*: 54). According to Marsh (2002: 55), "[t]he term bilingual education presupposes that that the learners are, or will become, bilingual". He suggests that the term "equilingualism" is one way of defining bilingual competence, as being "equally competent in two languages" (*Ibid.*: 55). This in itself is highly controversial and when applied to the educational context even more so. The term "mainstream bilingual education" is more synonymous with CLIL. This is where majority language students in state schools learn content through a foreign language (Marsh *et al.,* 1998: 1). Ludbrook (2008: 20) distinguishes between language use in bilingual education settings and CLIL settings suggesting that in the former a balance of both L1 and the additional language is strived for, whereas in the latter this rarely exists and is not an aim. Learners in CLIL contexts are not expected to reach the language proficiency levels of those in bilingual education which aim at native-like competence. In this sense, CLIL is not bilingual education, if bilingual education aims at equal competence in two languages. Indeed, it is frequently mentioned that such competence is not a goal for learners nor is it a pre-requisite of teachers involved in CLIL. A further distinction is that of the confines of the context in which teaching and learning takes place. Mendez and Pavón (2011: 577) state that "[a]ny type of bilingual education, whether CLIL or other, implies the use of two languages in the classroom". These authors argue that allowing for the mother-tongue and foreign language to openly coexistence in the classroom enables learners to draw from both repertoires which

maximises learning. In addition, this may facilitate understanding of learner needs and co-construction of meanings.

Traditionally, bilingual education serves to develop the linguistic skills of a minority which will be used beyond the classroom context in the wider society where it is needed, thus demanding a range of communication foci which, according to Ludbrook (2008a: 21), include “role relations, and situations which make up language behaviour in multilingual settings”. When ‘confined’ to the CLIL classroom, this renders such foci to the level of those of the foreign language class. Mainstream schools rarely present opportunities for learners to achieve bilingualism. CLIL has emerged as an educational approach which draws on common features of the various types of bilingual education across Europe where learners share a majority language.

1.1.3. Controversy over the label

Opinion is divided as to what the umbrella term of ‘CLIL’ embraces (see Cenoz *et al.*, 2013 and Dalton-Puffer *et al.,* 2014). Some suggest both bilingual education and immersion as being inclusive of CLIL. Lasagabaster (2008: 31) opts for a more neutral stance saying that CLIL “coexists with others used to include language and content” but that its uniqueness results from a combination of an integrated approach and the diversity of contexts in which it operates in Europe. There are those who see CLIL as being distinct from immersion, labelling it as a unique educational approach with its roots firmly in Europe and a response to uniquely European needs (Coyle 2007: 544; Muñoz, 2002: 36). Dalton-Puffer (2011: 182-3) states that CLIL is related to CBI and immersion “by virtue of its dual focus on language and content” and whether labelled as immersion or CLIL is as much to do with political and cultural issues as it is with programme characteristics. She states that CBI relates more to the development of second language competences of immigrants who have to learn the official language of instruction. Issues often centre around programme goals, student and teacher profiles, target languages, and content and language balance. However, one thing that seems generalisable over CLIL programmes is that content subject is the main driving focus (Dalton-Puffer *et al.,* 2010: 2).

Although it is a label that is relatively “neutral and generally accessible” (Dalton-Puffer *et al.*, 2010: 3) CLIL is still not without controversy or confusion. A lot of this is

because of the language element taken to mean minority, foreign, or just English (Lasagabaster and Sierra, 2009: 368). Even the term 'educational approach' is up for scrutiny and wide interpretation (Cenoz *et al.*, 2014: 245). This could relate to philosophy of education, theories of learning, instructional techniques, methodology, curricular time allotted, or all of these depending on context, goals, and orientation, such is the varied conceptualisation of CLIL. Cenoz *et al.*, (2014: 244) warn that "without a common understanding there can be no clear evolution".

The all-encompassing definition or 'hybridity' of CLIL is to its advantage as much as its disadvantage (Coyle, 2013: 245). Mehisto *et al.*, (2008: 12) state that CLIL incorporates immersion, bilingual education, multilingual education, language showers and enriched language programmes. This is further exacerbated by claims that as long as there is a dual focus (on language and content) regardless of what the ratio is, then this can be considered CLIL. It is a flexibility commanded by European diversity with its many languages, education systems, social, cultural, economic and political agendas which make a single model serving as a blueprint impossible (Coyle, 2013: 245; Coyle, 2002: 27; Baetens Beardsmore, 2002: 184).

Whilst acknowledging flexibility as a strength of CLIL, Coyle (2007: 546) also suggests that this weakens any claim to sound generalisable pedagogy in the absence of a "robust contextualized framework with clear aims and projected outcomes". This would be based on strong theoretical underpinnings and a legitimate body of empirical evidence which are currently lacking. In the same vein, the absence of a unified one-size-fits-all model has allowed CLIL to flourish and take into account a wide number of variations without restriction, and appreciate what they have to offer (Marsh, 1998: 52). However, this is also synonymous with a lack of cohesion regarding CLIL pedagogy with the many models constituting a range of methods, materials and organisation (Coyle, 2007: 548). The boundaries of CLIL are indeed hard to establish.

1.2. The uniqueness of CLIL

In an attempt to clarify and 'contain' CLIL, Coyle (2006: 5) lists characteristics often associated with it, but which do not pertain to it.

She states that CLIL is not:

1. Replicating models successful in very different environments (e.g., the Canadian model) but rather a flexible European approach with a range of models responding to situational and contextual demands;
2. 'Backdoor' language teaching or additional subject teaching;
3. Favouring languages at the expense of non-language subjects;
4. A threat to subject specialisms at any level;
5. Teaching what students already know but in a different code (i.e., the foreign language);
6. Teaching what students need to know but exchanging the language of instruction;
7. A fashionable trend – it's been around a long time;
8. Aiming to make students 'bilingual' in the traditional sense;
9. Elitist and therefore only for more able students;
10. Dependent on 'buying in' foreign national teachers. (Coyle, 2006: 5)

Although Coyle *et al.* (2010: 1) suggest that CLIL shares some characteristics and basic theories with bilingual education, immersion and content-based language teaching, they state that it is fundamentally different. In CLIL there is a convergence of two often distinct forms of teaching, content teaching and language teaching (Marsh and Frigols, 2007: 33-34; Coyle *et al*., 2010: 4). The blending of the two is a unique educational approach. It is often compared to the Cirque du Soleil concept where traditional circus is combined with modern music, dance and gymnastics to create a unique type of performance.

Part of what contributes to the complexity of CLIL for those teaching it is the fusion of two (distinct) knowledge bases. Each subject (content and foreign language) will have its own knowledge base. According to Day and Conklin (1992) cited in C. Day (1993: 3-4) the knowledge base of foreign language teacher education consists of the following: 1) content knowledge of the subject matter; 2) pedagogic knowledge of generic teaching strategies, the how to, including classroom management, and the why behind this which includes beliefs about teaching and learning; 3) pedagogic content knowledge - the how to related to the teaching of the specific content including methods, materials, assessment; 4) support knowledge – the knowledge of the disciplines that inform an approach to teaching and learning such as linguistics, SLA and psychology, research methods. Roberts (1998: 105) provides other elements of the knowledge base which we may add to Day's areas mentioned above. These are: 5)

curricular knowledge (of the official language curriculum and resources); 6) contextual knowledge (of learners, the school and wider community); and 7) process knowledge (consisting of enabling skills – ability to relate to learners, other teachers and parents; study skills, collaborative skills, inquiry skills – for observation and self-evaluation; and meta-processing – of self-awareness and self-management). We may add to all of this the knowledge base of the content subject. A CLIL teacher has not only to develop an awareness of both knowledge bases, but also how these can combine in the unique CLIL classroom context. It goes without saying that this is highly demanding for teachers especially as they will, in the majority of cases, be coming from either of these teaching backgrounds. It will lead to a challenging re-examination of their current practice. Not only is it challenging in terms of teacher preparation (and reflection), but also in terms of a consideration of learner needs.

Marsh (2006) states that CLIL is based on four main principles: cognition, community, communication and culture. These are directly linked to the methodology of the approach which integrates "message", "medium", and social interaction (*Ibid*: 33). According to Coyle *et al*. (2010: 6) there is "planned pedagogic integration of contextualized content, cognition, communication and culture into teaching and learning practice". Ruiz de Zarobe (2013: 234) echoes this view of CLIL as a unique "multidimensional approach connecting different goals within the same conceptualization". This is illustrated by the 4Cs framework of Coyle presented as a 'curriculum' (see Table 1) which includes the dimensions of Content, (subject matter), Communication (language), Cognition (thinking processes), Culture (intercultural awareness).

Content	Integrating content from across the curriculum through high-quality language interaction
Cognition	Engaging learners through creativity, higher-order thinking, and knowledge processing
Communication	Using language to learn and mediate ideas, thoughts and values
Culture	Interpreting and understanding the significance of content and language and their contribution to identity and citizenship

Table 1. The 4Cs curriculum (Coyle *et al.,* 2009: 12).

Central to this is 'culture' to which content, cognition and communication all relate. Kiely (2011) provides a clear explanation of this in relation to CLIL in educational contexts. He says that "culture refers to shared understandings and practices, whether in bodies of knowledge such as science, or the ways language is used to share meanings" (*Ibid.*: 154). It would appear therefore, that CLIL has much more than a dual focus. It is this potential that makes the approach unique and compelling.

1.3. Principles and theories of learning

Given the range of contexts in which CLIL operates, Coyle (2006: 3; 2007: 546) calls for a prioritising of shared understanding about CLIL based on firm principles and theories of learning. This understanding will pave the way for new pedagogies to be formulated and a new didactics to emerge (de Bot, 2002: 32). Coyle (2002: 27-28) states that CLIL promotes four key principles (here adapted):

1. It places content or subject learning and the acquisition of knowledge, skills and understanding inherent to that discipline at the very heart of the learning process. This implies changes in methodology which have traditionally focused on transmission of knowledge from teacher to student, to ones which involve more engagement and interactivity which take account of language learning and use in the learning process.
2. Language is a conduit for communication and learning. It is used in authentic and unrehearsed yet 'scaffolded' situations to complement the more structured approaches common in foreign language lessons. CLIL serves to reinforce the notion that language is a tool which to have meaning and sense needs to be activated in contexts which are motivating for and meaningful to our learners.
3. CLIL should cognitively challenge learners – whatever their ability. It provides a rich setting for developing thinking skills in conjunction with both basic interpersonal communication skills (BICS) and cognitive-academic language proficiency (CALP).
4. CLIL embraces pluriculturality. Since language, thinking and culture are inextricably linked, CLIL provides an ideal opportunity for students to operate in alternative cultures through studies in an alternative language. Studying a subject through the language of a different culture paves the way for understanding and tolerating different perspectives.

These four principles are crucial to an understanding of CLIL and are the foundation of CLIL pedagogy to which all methodological considerations should adhere.

1.3.1. Second language acquisition theories

CLIL draws on a broad range of learning theories incorporating second language acquisition (SLA), cognitive theory and socio-constructivism, as well as a number of associated approaches, hypotheses and models. The innatist theory of Krashen (1982) is frequently drawn attention to in CLIL, especially his hypotheses related to acquisition – learning, input and the affective filter. Krashen claimed that acquisition of language takes place unconsciously when there is plenty of exposure to 'comprehensible input' (Krashen, 1989: 7-23), that which is just beyond the current linguistic competence of the learner ('i +1') and that for this to be successful, the learner's attitude and emotional state have to be positively pre-disposed to accept it. In a classroom context, this means that the atmosphere and conditions must be optimal for this to occur. Acquisition contrasts with 'learning' which is a conscious act of interpreting and applying rules (for detailed discussion of Krashen's theories, see Lightbown and Spada, 1999: 38-40 and Brown, 2000: 277-281).

The implications of the above for classroom teaching are that teachers should be conscious of how languages are acquired and learned. They need to know that second languages are best acquired in naturalistic contexts where there is plenty of exposure to good models and opportunities for interaction in which meaning can be constructed from experiencing how the language functions. Focus is on using the language and meaning is extracted from this use. It is "using language to learn and learning to use languages" (Marsh, 2000). Transferred to a school context, this would mean providing an environment where there is good quality input of the language from the teacher and risk-free opportunities where the language is tried out and put to use in purposeful interaction with other learners in the classroom. Here learners will see the extent of their language reserve and what they are able to produce (output) as well as their ability to do this. This is the positive contribution of Krashen's hypotheses to CLIL. However, there are doubts as to whether a straightforward application of these 'principles' is enough. Mohan (1990: 116) states the limitations of applying Krashen's model to integrated learning because it essentially focuses on language acquisition and not knowledge acquisition. In addition, no attention to linguistic form could curtail language use. This was noticed in immersion programmes in Canada where it was found that a "counterbalanced approach" (Lyster, 2007) was useful in facilitating learners' awareness of the role of language in content learning. It is doubtful that teachers will

produce 'pure' forms of comprehensible input as they are likely to be conscious of the need to scaffold this by means of modifying speech for easier learner access, and provide linguistic cues and frames to encourage learner output which is thus more aligned to 'learning' as opposed to total 'acquisition'. This is essentially what CLIL is about and is in keeping with its namesake, Content and Language Integrated *Learning*.

1.3.2. Cognitive learning theories: constructivism and social constructivism

If learners are more engaged in learning processes and are challenged by tasks which require them to think, they are likely to learn more. In CLIL, much more effort is required of the learner to understand and process both language and content knowledge. There is tension between what is known and what is new, and the effort to accommodate and articulate new understanding of language and content (Dale *et al.*, 2011: 21). Learners are involved in constructing meaning for themselves within this process. This is enhanced if done with the support and guidance of others when engaged in dialogic events. A theoretical explanation for this is provided by Vygosky's Zone of Proximal Development (ZPD) in which learners are cognitively challenged by tasks which are slightly above their level of learning yet are able to achieve success with the support of a more able other (teacher or peer). Coyle (2007: 552) suggests that her 4Cs framework espouses sociocultural theory "where social construction of knowledge and culturally embedded learning permeate the whole". Lantolf (2002: 106) acknowledges "peer mediation" as an important alternative to the teacher-learner interaction pattern. Collaboration between learners can involve them mediating and scaffolding each other's language use and creating understanding together. In a pilot study conducted in a large heterogeneous class of lower-secondary-aged students studying the social sciences through English at a private school in Cordoba, Argentina, Pistorio (2010: 1-10) found that an experiential, constructivist model promoted effective learning and improvement of language skills.

CLIL has been referred to as 'learning by construction rather than by instruction'. It is suggested that the processes involved in task orientation within groups such as verbalising concepts to others enhances the cognitive dimension in the CLIL class. The learner may engage in processes which involve relating new knowledge in the additional language to existing knowledge in the first language in order to construct new understandings in the additional language (Marsh, 2006: 36). Drawing on Bruner

(1990), Marsh (2006: 36) summarises the principles of a constructivist approach in CLIL:

1. Instruction must be concerned with the experiences and the contexts that make the student willing and able to learn (readiness);
2. Instruction must be structured so that it can be easily grasped by the student (spiral organization);
3. Instruction should be designed to facilitate extrapolation and or fill in the gaps (going beyond the information given).

Learners in CLIL have to be cognitively engaged. They also have to be aware of their own learning and develop metacognitive skills which help activate this consciousness. This is why a transmission type of education is inappropriate in CLIL. CLIL demands active engagement in problem solving tasks which require various types of thinking. Bloom's taxonomy of cognitive processes (1956) is frequently referred to in relation to the cognitive factor in CLIL. The taxonomy consists of six types of thinking ranging from lower order thinking (remembering, understanding, applying) to higher order thinking (analysing, evaluating, and creating). Learners in CLIL should be engaged in various types of task which challenge their thinking and which enable them to move from lower order to higher order processes. These are often presented visually as a pyramid (see Figure 1.) accompanied by imperative verbs which denote types of activity. It is possible to predict language that learners will need to use when articulating these skills orally or in written form. It is also possible and necessary for teachers to consider questions that will engage learners in this level of thinking. These 'frames' provide essential scaffolding for expression of cognition. A later version of the taxonomy revised by Anderson and Krathwohl (2001: 29) includes a knowledge dimension consisting of four types of knowledge: factual, conceptual, procedural, and metacognitive. Consideration of this in relation to subject content is paramount in CLIL. Both cognitive and knowledge dimensions of this taxonomy provide a useful guide to planning for effective learning in CLIL lessons and for a consideration of the language required for this. A major consideration in selecting or designing tasks is the type of thinking required and whether the learners have the linguistic ability to articulate this. In other words, the right 'balance' of cognitive and linguistic demands must be met for the learner to have any realistic chance of task accomplishment. In this sense, it could be argued that CLIL is 'thinking-centred'.

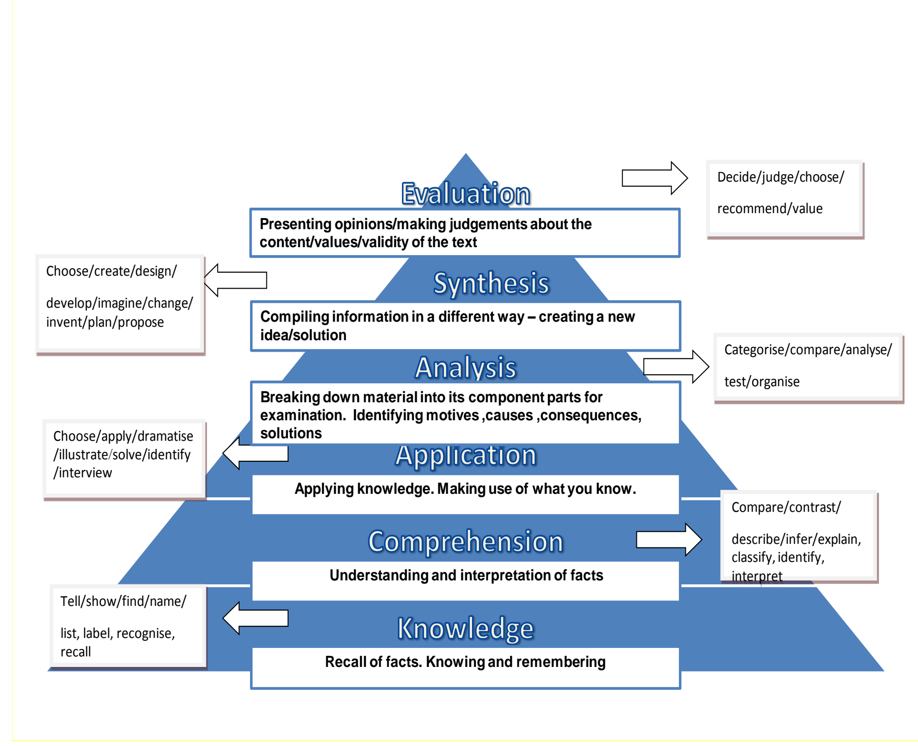


Figure 1. Bloom's Taxonomy of Cognitive Processes (adapted from Ellison, 2010b)

Since its conception in the mid 1990s, further endorsement for CLIL has come from studies in the neuro-sciences where evidence from research has linked language learning favourably with a number of competences which include enhanced cognitive ability, flexibility, creativity, and linguistic awareness (see European Commission (2009) 'Study on the Contribution of Multilingualism to Creativity'and Marsh (2011) 'Benefits of Bilingualism: Insights from the Neurosciences').

1.4. Language in CLIL

The role and perception of language in CLIL are crucial to an understanding of its pedagogy. Language is used as a tool for the transmission of content knowledge and an expression of understanding and learning. In contrast to foreign language lessons where language is the subject and aim, and curricula are designed to account for systematic progression in language learning from easier to more complex grammatical structures, in CLIL, focus is on the use of language. This ignores 'grammatical hierarchies' in favour of functional exponents to express meaning. This perception may be problematic for language teachers who are used to focusing on form in a systematic way. Communication in the CLIL classroom can also incorporate the use of the L1 in

instances of code-switching[11] and translanguaging[12] (see Serra, 2008: 582-602 for an examination of the practical role of L1/L2 alternation in repair sequences in CLIL).

1.4.1. BICS and CALP

What is common to all CLIL contexts is 'academic' educational content taught through an additional language. There is a strong emphasis on meaning as opposed to form. The additional language used is expressly related to academic content, knowledge, notions, principles and functions. This is what makes a CLIL lesson different from a foreign language lesson where the focus would normally be on developing communicative competence for everyday use. Content in such lessons would be used as a means of developing the language. Cummins (1979) makes a distinction between basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP). In CLIL, the emphasis is on CALP where the content drives cognition and language use. Knowledge and understanding are gained in a process which involves all three, what Ting (2010: 6) refers to as "content cognitive language processing". Cummins (2000: 541) defines academic language operationally as:

> the sum of the vocabulary, grammatical constructions, and language functions that students will encounter and be required to demonstrate mastery of during their school years. This will include the literature and expository texts that students are expected to read and discuss in both oral and written modes. (…) [I]n order to develop students' access to and mastery of academic registers, instruction must focus on meaning, language and use. It assumes that for optimal progress to occur, cognitive challenge, intrinsic motivation, and promotion of critical literacy must be infused into the interactions between teachers and students.

He suggests that BICS takes around 1 to 2 years to develop whilst CALP requires 5 to 7 years. This is based on research carried out into language proficiency in immersion programmes. It adds fuel to the argument in support of modular CLIL where the gap between exposure to content taught in the mother-tongue is not too wide allowing for a recycling of key terminology and concepts in both languages.

---

[11] Code-switching is an individual's use of two languages within the same speech act. There are at least two types: intrasentential where the switch occurs within a clause or sentence; and intersentential when the switch occurs at clause or sentence boundaries (see García, 2009 49-51).

[12] Translanguaging is the use of different languages for different modalities. For example, in a classroom reading is done in one language and writing in another (see García, 2009:44-51).

Coyle (2006: 10; 2007: 552) presents an analytical framework for language in CLIL. This is often represented as a triptych (see Figure 2.) where communication is divided into three types of language which should be the foci of preparation for the linguistic element of CLIL lessons. Here there is a heavy focus on functional use of language as opposed to grammatical hierarchy. The triptych consists of language *of, for* and *through* learning. Language *of* learning is related to the language of the subject content, its skills and concepts. Language *for* learning is that which supports the learning process such as that required of learners to discuss, analyse and synthesise content, apply concepts and articulate this within pairs or groups. Language *through* learning is that which learners articulate to express their understanding and create new meaning.

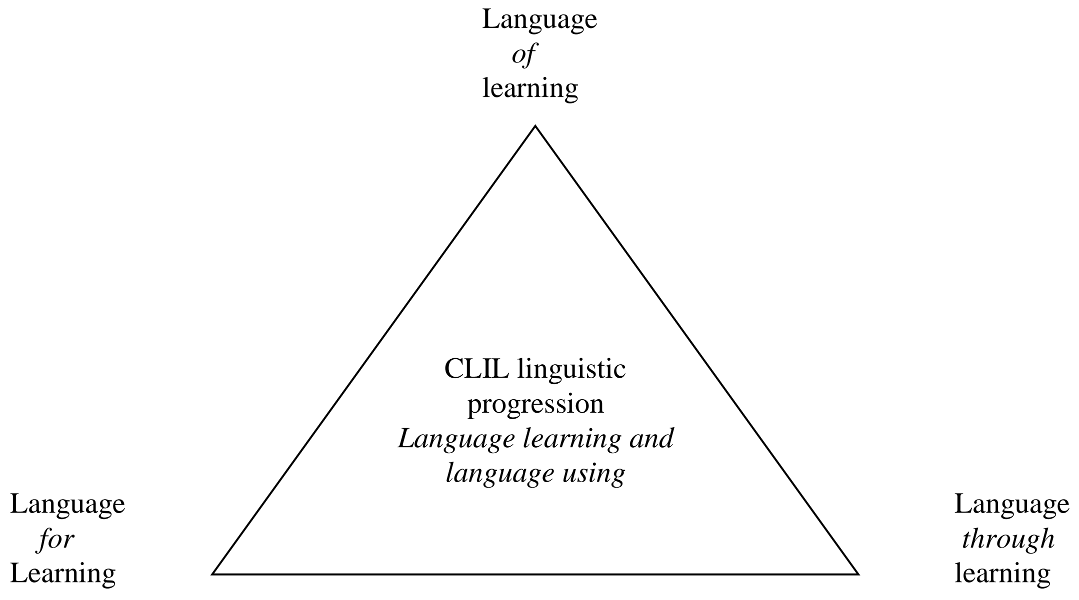


Figure 2.The Language Triptych (from Coyle *et al*., 2010: 36)

For Soetaert and Bonamie (1999:3) “[l]earning subject matter is like learning a kind of discourse – a kind of rationality”. It is about being “socialised” in that discourse where teachers and students construct ways of using languages together. This is as much the case in contexts where L1 is the medium of instruction as it is for CLIL, and is the principle behind ‘Language across the curriculum’[13] and the recent initiatives of the Council of Europe, ‘Languages and school subjects: Linguistic dimensions of

[13] The report ‘A Language for Life’ also known as the Bullock Report (1975) drew attention to the quality of English language teaching in schools across England and Wales and attributed responsibility to all teachers from all curricular areas to raise standards in the English language: “Each school should have an organised policy for language across the curriculum, establishing every teacher’s involvement in language and reading development throughout the years of schooling” (1975: 514).

knowledge building in school curricula' (2010) which identifies the discourse functions and linguistic competences needed for teaching and learning school subjects. Salaberri and Sánchez (2013: 3) refer to language as "the subject of subjects". It figures, then, that all teachers, whether language or content teachers, should be "linguistically aware (…) whether they are working on language or content" (Marsh, 2013: 96) and take responsibility for the teaching of both (Hillyard, 2011: 2). Content needs to be made accessible through language. This is closely related to thinking processes and the reciprocal relationship between language and thought – language is needed to express thinking, and thinking is required to develop language. Language is an individual's expression of learning. This is not always easy for teachers to predict. They can be attentive to language use and note gaps in learners' language repertoire which thereafter can be paid more (systematic) attention to.

1.4.2. Meaning and use vs. focus on form

CLIL works on the principle that languages are best acquired where there is rich input and opportunities to use the language with others. Learning by doing has long been understood as an effective means of acquiring any skill. Marsh (2000: 4) states that "[i]t is not so much *what we know* but *how we use it* which is so important when we consider effective language learning and communication". This implies a functional systemic view of language in CLIL (see Lorenzo, 2007: 28) which supports the idea that partial language competence is an acceptable state in CLIL lessons. Lorenzo (2007: 34) argues that "a CLIL theory of language learning has to make sense of apparent imbalances in language competence: students can be communicatively competent and grammatically inaccurate at one and the same time". He goes on to suggest a sociolinguistic theory of L2 acquisition in CLIL drawing on the following principles: "Language forms can only be learnt within a powerful functional mapping"; "subject area content provides the cognitive schemata through which language makes sense"; and "message delivery triggers language use in natural settings" (*Ibid.*: 34). This supports Cummins' (2000: 544) claim that "L2 acquisition will remain abstract and classroom-bound unless students have the opportunity to express themselves – their identities and their intelligence – through that language".

As far back as the 1970s, Widdowson (1978: 16) cited in Richards and Rodgers (2001: 205) stated the benefits of teaching content through the foreign language for students' understanding of language use:

> I would argue, then, that a foreign language can be associated with those areas of use which are represented by the other subjects on the school curriculum and that this not only helps to ensure the link with reality and the pupil's own experience but also provides us with the most certain means we have of teaching the language as communication, as use, rather than simply of usage.

Marsh (2000: 7) suggests we should "challenge the idea of '*waiting until I think I am good enough in the language* to use the language". Using the language whilst they are learning gives learners instant satisfaction and can boost self-esteem and motivation for further use. It has been suggested that CLIL acts as an "enabler" with metacognitive properties of helping learners how to learn both languages and content (Marsh, 2002: 65). It could be argued that learners are more cognitively engaged as they have to work harder at decoding meaning through the foreign language. Wolff (2005: 17) states that "specific processing strategies" must be acquired by learners in order for them to interpret materials in CLIL, and that this is a key feature of its methodology. One of the main principles of CLIL is the active and often immediate use of the additional language in the classroom. An often cited 'mantra' is 'Learn now, use now', in contrast to the 'Learn now, use later' concept associated with foreign language learning. This in itself is appealing to the i-generation of learners whose use of constantly changing digital technologies mirror this in their daily lives demanding competences involving multi-tasking and multiple types of thinking. In the CLIL classroom, there is an emphasis on using the language to perform tasks associated with subject content. This requires teachers to adopt a more task-oriented approach to their subject teaching, one that is less teacher-focused and more learning- and thinking-centred. It is active learning as opposed to the passive reception of knowledge as in a transmission approach. This active engagement of learners in using the language to attach meaning and express understanding of concepts whilst engaging with others is at the core of CLIL. Coyle (2002: 28) stresses how important this is:

> When 'language using' experiences are positive, when students are challenged to understand, think and reconceptualise prior learning in more than one language, when alternative perspectives are presented to our learners in different

> languages, then as the number of successful language learners increases, we can consider ourselves as having matured as a plurilingual and pluricultural learning society. CLIL's role is vital to that maturation process.

However, the focus on meaning at the expense of form has caused a degree of tension in CLIL. Coyle *et al.* (2010: 34) state that CLIL ignores the progressive role played by language in the learning process. Similarities with first language acquisition in natural contexts have also been under scrutiny (see Dalton-Puffer *et al.*, 2010: 7) with renewed interest in a focus on form as conveyor of meaning also being seen as important (see Lyster, 2007 for a 'counterbalanced' approach). It is thought that exposure is not enough – that attention should be drawn to language forms in order to facilitate understanding. It has been noted that in French immersion contexts in Canada, learners demonstrated morphological, syntactic and lexical inaccuracies (Lyster, 1984, referred to in de Graaff *et al.*, 2007: 604). Attention to form is necessary for learners to progress and provide evidence of their new learning. As language expresses meaning it is essential that the right choices are made in terms of form. CLIL has been referred to as a 'language sensitive' approach on account that it is not only important to identify language needed and used in CLIL lessons, but also provide the necessary support or scaffolding so that learners may be supported in their efforts to communicate their understanding. Only focusing on meaning is not enough (Wolff, 2005: 17). Coonan (2003: 1) warns that language development in CLIL "cannot be left to chance". She points out the risks inherent in this to an understanding of subject content because of difficulties with the additional language, and the non-development of language competence. Thus, methodology must be developed which meets objectives of both content and language.

1.4.3. Teacher language proficiency and use

A teacher allocated the responsibility of teaching a subject through a foreign language must have a high degree of (all-round) proficiency in that language. Teachers need not be native, but they do need to be fluent (Marsh, 2002: 11). Ludbrook (2008: 23) highlights the range of language proficiency pre-requisites for CLIL teachers around Europe, from A2 to C2 on the Common European Framework of Reference scale. The CLIL teachers' language proficiency must extend to academic language and not merely BICS, which means that even a foreign language specialist teaching in a CLIL context would have to study the academic content language and functional language exponents

of a given subject discipline. This is not necessarily something that their own academic courses will have prepared them for. Each subject will have its own specific language demands – the key terminology as well as the language used to express key notions and concepts. For example, in science subjects there is frequent use of structures and exponents to explain and describe processes. In addition, teachers will need to know the language used to express opinions and understanding in order to help learners to communicate in and around the subject area with each other and the teacher. Teachers will need to demonstrate linguistic range and flexibility in order to reformulate and recast language to make concepts clearer and interpret learners' ideas and thinking.

The teacher's questioning strategies are fundamental in developing language through learning and exercising a range of thinking skills with corresponding further language use. Often teachers fail to ask follow up questions which would frame this (Mehisto, 2008: 102). Through strategic use of questioning, the teacher can encourage a range of thinking skills. The typical Initiation-Response-Feedback interaction pattern (Sinclair and Coulthard, 1975 cited in Thornbury, 1996 and Cullen, 1998) common in many classrooms where the teacher asks a convergent question, the student answers accordingly, and then the teacher gives feedback, usually in the form of short verbal praise, is of limited use in the CLIL classroom. In order to encourage a range of thinking processes, the teacher has to use a range of question-types: closed, open, convergent, and divergent. It is important that teachers do not avoid the 'Why' questions, but that they are also aware of the linguistic level of the learner in terms of their ability to answer. Coyle *et al.* (2010: 67) state that the 'Why' question is the "richest tool for any CLIL teacher (…) since a response activates a thread of simultaneous and integrated learning demands embedded in the 4Cs". All manner of 'teacher talk' provides exposure to the additional language. This also involves that of classroom management (Harmer, 2013: 152-153). This also extends exposure beyond that for subject content to that for regular academic use. The teacher will also have to effectively manage the use of L1 and the additional language in the classroom – his/her own and that of the learners. From the observation of teachers in primary CLIL contexts, Kiely (2011: 62-64) offers seven principles to guide L1 and L2 use in the CLIL classroom: "maximize exposure to and use of L2 in the classroom"; "manage the classroom in English"; "focus on accuracy in pronunciation"; "check comprehension using L1"; "teach L1 terms for the subject"; "promote interlingual work – exploring the

two languages"; and "use L1 to support learning". Use of the L1 in the CLIL class should be judicious, brief and targeted in order to maintain momentum and provide a scaffold which may later be taken advantage of and analysed in L2 for full benefit of the strategy (Mehisto, 2008: 101).

Above all else, the teacher needs to be conscious of language as a tool/instrument for learning and that CLIL lessons are not a question of simply translating what is normally done in one language code into another. Teachers need a "metacognitive understanding" (Marsh, 2013: 96) in terms of the language awareness of their subjects.

1.4.4. A shift in perspectives: language as a tool for learning

Marsh (2006: 33) states that CLIL is an approach which is "essentially methodological, and easily misunderstood". This misunderstanding is related to the use of the vehicular language, interpreted by many as simply switching the language code to suit the context of teaching *in* a different language. As Pavón and Rubio (2010: 51) state:

> It is not about teaching "the same" in another language, but deals with promoting assimilation of content through the use of different techniques (identification, classification, inference, prediction, recognition, comparison), the encouragement of cooperative study strategies, and the search for alternative means of supplying input (internet, magazines, newspapers, brochures, instructions, scientific journals) that help the understanding of material.

A shift in perspectives is required which incorporates a view of language as a tool for learning and not the subject of learning itself. In this sense, language is the means of getting through to the content, of making sense of it and expressing understanding. Language makes this content accessible. This may be achieved in spite of inaccuracies in form (Pavón and Rubio, 2010: 49) as well as an adoption of language-sensitive methodologies. Coyle (2002: 27) refers to this as a "symbiotic relationship" in which content is taught using methodology which goes beyond traditional transmission approaches from teacher to student, to one where content is at the centre of a learning process which involves "working with and through another language rather than in another language". This has important implications for teacher education as Coyle states:

> This shift has brought with it a need to redefine methodologies to take account of language use by both teachers and learners which encourages real engagement and interactivity. It has also brought with it teacher reflection on how best to teach and therefore embraces issues fundamental to the education process itself. CLIL therefore has implications for teacher education at both pre and in-service levels. (2002: 28).

2. Methodology

The teacher's language proficiency and skill are undoubtedly important and represent a key competence in teaching CLIL. However, as Marsh (2002: 78) states, an over-emphasis on language skills can overshadow the importance of methodological skills. Methodological shifts are extremely challenging for teachers whether they are language specialists or content teachers teaching CLIL. The teacher will have to make a number of careful decisions regarding "medium, methods and materials" (Pavón and Ellison, 2013: 71). Teachers will need to adapt their methodology in order to make the meaning of the subject content clear to students and provide opportunities to use the language to learn the content and put that learning to further use by using the language. This may be particularly difficult for content teachers who need to be aware of providing for development of communicative competence of learners (*Ibid.*: 69). This is a complex, multi-faceted process and demands an awareness of how to support language learning, content learning and the development of cognitive processes which combine the former two and express understanding. For this it is essential that teachers consider a variety of scaffolding strategies.

CLIL teaching is neither foreign language teaching with additional content nor content teaching in a different language. It is a fusion of the best of both (Ioannou-Georgiou (2012: 496). This is singularly one of the most difficult concepts for teachers (and other stakeholders) to understand. This is further compounded by a lack of acknowledgement of this in the literature and on teacher education programmes which leave teachers with a "subject-focused mindset" (Mehisto, 2008: 103). Merely teaching content in a different language code would be to disregard the fundamentals of CLIL such as cultural transmission and cognitive processing. It is demanding of teachers in that it forces reflection on the language of the discipline, methodology and materials used. Adaptations to these are essential if learning is to be supported. Coyle *et al*. (2009: 19) suggest that while neither content nor language should dominate over the other in CLIL, there may be a need for a focused input on one or the other depending on learner needs

and rates of progress. Coyle (2007: 548-549) highlights a methodological concern in an over-emphasis on language processing owing to the influence of language acquisition theories on CLIL at the expense of subject matter pedagogies and their integration with language pedagogies, and in some contexts there may be a dominance of transmission-oriented approaches focusing on content delivery especially where time is a constraint. This is exacerbated by aims to keep up with L1 content teaching leading to less oral interaction and more focus on written production.

Teaching in CLIL classes also implies a shift in emphasis in the roles played by participants in the classroom (Pavón and Rubio, 2010: 48). Teachers need to be very conscious of this. Although there is likely to be some teacher-centredness, especially for introducing new content, more focus will be on learners as they process and demonstrate their understanding through application with their peers during group activities. This means that teachers will surrender their more central role of transmitting content, (as in traditional transmission approaches), and assume a more facilitative one. They also surrender their position of total subject authority because it is unlikely that they will be expert in both language and content. This means that the collaborative view of constructing learning also involves the teacher. For example, a content teacher may well learn language from older learners (Hüttner *et al.*, 2013: 276). Learners will be more actively engaged on various levels, linguistically, cognitively and socially, as opposed to passive recipients of content. Their active engagement in groups ensures more spoken interaction, which in turn helps develop fluency in the L2. All of this could help increase motivation and develop positive attitudes towards the language.

2.1. Conceptual frameworks

Given the variety of subject content areas and educational contexts, it is unwise to talk in terms of fixed formulae for methodology, but rather conceptual frameworks which can be adapted to suit disciplines and models accordingly. Snow *et al.* (1989: 204) put forward a conceptual framework for the integration of language and content in second/foreign language instruction in which there is a close reciprocal relationship between content and language teachers working in tandem and in identifying "content-obligatory" and "content compatible language" of subject areas and systematic development of language objectives. The former relates to that language which is essential to an understanding of the subject matter and the latter is other language that is

required by or incidental to the context. This is compatible with a language sensitive approach in CLIL. These authors state that this is essential as language proficiency does not simply emerge as a by-product. This is reiterated by Mohan (1990: 115) who adds subject knowledge and thinking skills to this systematic operation.

2.2. The 4Cs framework

The most recent and well-known conceptual framework for CLIL is Coyle's 4Cs Framework (Coyle, 2007: 549; Coyle *et al.*, 2010: 43-44). This has already been mentioned in this chapter in relation to a 4Cs curriculum. Here it is viewed as a set of methodological considerations. The 4Cs refer to *content, communication, cognition* and *culture*. *Content* refers to the knowledge and concepts of the subject; *communication* is the language needed to transmit knowledge and understanding of the content. Coyle divides this into three mutually interactive types: language of learning – the key terminology of the discipline; language for learning – the language needed to communicate about the content which consists of functional exponents for describing, analysing, evaluating and so on; and language through learning – that which learners use to express understanding of the content and is used in tasks which require language and knowledge to be interwoven and applied; *cognition* refers to the thinking skills and competences required of the discipline and the fusion of language and content; and *culture* or community which may refer to that which is culturally transmitted in materials and tasks, or communities of classroom or inter-classroom practice with students learning from and with each other or with others beyond their local context. A fusion of these 4Cs is said to encapsulate CLIL. Coyle (2007: 549) states that this is essential to understanding and operationalising quality CLIL which may not be found in the pedagogy of each area alone. The following principles underline the 4Cs framework:

1. Subject matter is about much more than acquiring knowledge and skills. It is about the learner constructing their own knowledge and developing skills which are relevant and appropriate.
2. Acquiring subject knowledge, skills and understanding involves learning and thinking (cognition). To enable the learner to construct an understanding of the subject matter, the linguistic demands of its content as the conduit for learning must be analysed and made accessible.
3. Thinking processes (cognition) require analysis in terms of their linguistic demands to facilitate development.

4. Language needs to be learned in context (i.e., learning through the language), which requires reconstructing the subject themes and their related cognitive processes through a foreign or second language e.g., language intake/output.
5. Interaction in the learning context is fundamental to learning.
6. The interrelationship between cultures and languages is complex. The framework puts culture at the core and intercultural understanding pushes the boundaries towards alternative agendas such as transformative pedagogies, global citizenship, student voice and identity investment. (Adapted from Coyle 2007: 550-551. See also Coyle *et al*., 2010: 42).

There are various patterns of 'integration' within the 4Cs framework (see Figure 3) : knowledge and knowledge for learning engaging learners in thinking and knowledge processing (content and cognition); language and language for learning, mediating ideas, thoughts and values (communication and culture); and language as a 'culture-bound phenomenon' and medium for learning, and intercultural experiences, (see Coyle, 2007: 549-550). Culture is central to CLIL for it is through the language which is inextricably bound to culture that knowledge is accessed and learning realised. This is all done through the various lenses that culture-bound language offers. It helps learners develop a type of "multiperspectival competence" (Wolff, 2005: 21) where they can develop concepts of "self" and "otherness" (Coyle *et al*., 2010: 64). In this way, CLIL gives learners opportunities to explore and evaluate beliefs and attitudes making it good preparation for, and a contributing factor to, global citizenship (Coyle *et al*., 2009: 7). This is what makes the 4Cs not so much a conceptual framework, as a philosophy of education which embraces a holistic perspective.

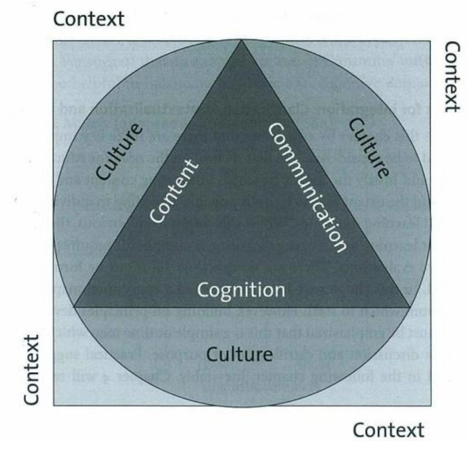


Figure 3. The 4Cs Framework (Coyle *et al.,* 2010: 41)

A different reconceptualisation of the 4Cs framework is presented by Sasajima (2013: 58) who places cognition at the centre regarding it as important for teachers to think about their teaching, studying and learning in CLIL as it is for learners. Sasajima also adds “learning context” and “learning culture” to emphasise their influence on classroom activity. He says that the former should be flexible and the latter stable, and qualifies his statement with the point that features common to European CLIL are not necessarily appropriate to his Japanese context.

2.3. Planning for CLIL

CLIL requires very careful and intensive planning which for most teachers (language and subject teachers) will be different to what they normally do. For instance, language teachers will not usually plan with specific content knowledge principles and corresponding thinking/cognition in mind, and content teachers will not usually consider the language demands of their subject content. CLIL requires a different approach to planning which fuses both ‘pedagogies’. A useful starting point for planning CLIL lessons is the 4Cs framework. Meyer (2010: 23-24) visualizes the 4Cs as the base of a square pyramid which fuse into CLIL practice at the tip. Precision in formulating lesson goals which incorporate content and language is crucial in planning for CLIL. This mental exercise helps teachers ensure the dual focus in the lesson as well as provides them with a base for critical analysis of the teaching/learning process (Mehisto, 2008: 99). This is heightened all the more if learners are also made aware of these goals.

Coyle *et al.* (2010: 92) suggest that the learning process in most contexts can be divided into three sub-stages: “meeting input, processing input (thinking) and producing a response”. Good, careful planning which involves anticipating language demands of input processing and output should help to avoid oversimplification of content and maximise understanding beyond comprehension to analysis, synthesis and evaluation (Coonan, 2008: 626). This will determine the materials and tasks used, and ensure teacher preparedness in terms of anticipating the demands of these on students (Salaberri and Sánchez, 2012). Teachers can brainstorm the particular content area using the 4Cs. From this point they can organise a sequence of lessons with aims for each of the Cs. The attention given to the 4Cs may vary within a sequence of lessons. It is important to consider how much new content and language can be introduced at any

one time. Coyle *et al.* (2010: 95) present a "content and language familiarity and novelty continuum" which attempts at a balanced progression of mixing known with new, and avoids language becoming a barrier and the dumbing down of content. Within a single lesson, the teacher should provide opportunities for input, processing it and responding to it through output. This means that tasks should be set up where learners can develop their understanding of key concepts and express this understanding through the L2. There should be a steady progression of challenge within and between tasks which should be appropriately scaffolded.

2.4. Scaffolding

Scaffolding is key in any context which offers an opportunity for learning. In fact, scaffolding is itself part of that 'opportunity'. The literal term refers to a supportive structure used in the construction or re-construction of buildings. Scaffolds are usually temporary structures which are removed once construction is completed and reused for other constructions or re-constructions when needed. The metaphor is widely used in educational contexts to refer to the support given to the learner so that learning becomes possible. The term was first used in educational contexts by Wood, Bruner and Ross (1976) cited in Hammond and Gibbons (2001: 2) to describe the supportive linguistic interaction between parents and their children. The work of Vygotsky (1978: 86), particularly with regard to the Zone of Proximal Development (ZPD) has become synonymous with this concept. Learning and cognitive development are part of a social process where individuals learn from and with each other. New learning is possible where there is a capable other, usually the teacher or adult carer. It will take place if there is challenge which motivates the learner. Challenge is provided by tasks which are above the current learning level of the individual. If there is no challenge, learning is unlikely to happen. This support is usually given by the teacher, but it may also be through other learners. As Hammond and Gibbons (2001: 12-13) point out:

> [K]nowledge is collaboratively constructed rather than simply passed on, or handed from teacher to learner. That is, knowledge is constructed in and through joint participation in activities where all participants are actively involved in negotiating meaning. Clearly, learners construct new and extended understandings through their collaborative participation in scaffolded activities. But in doing so, they are doing more than simply absorbing information or digesting chunks of knowledge. Their active participation, with support from the

> teacher, enables them to construct and, potentially, transform understandings. (Hammond and Gibbons, 2001: 12-13).

These authors state that "teachers need to provide temporary supporting structures that will assist learners to develop new understandings, new concepts, and new abilities" (*Ibid*.: 14). Key to this is the word 'temporary' as once the skill is developed, the scaffold can be removed. Scaffolding may take many forms in educational settings. Teachers need to know their learners well and anticipate what they can achieve with and without their support. It is about planning a cognitive route that is challenging and rewarding. Support needs to be constantly adjusted as the route takes shape. Central to this is providing the right environment for learning where risks may be taken and errors considered an accepted and natural part of the learning process. In this environment, learning is possible if opportunities are created and managed well so that learning is gradually achieved.

Scaffolding in CLIL is complex owing to its dual/multiple focus. Mehisto (2008: 109) suggests a reconceptualisation of the ZPD for the CLIL context:

> In CLIL, the ZPD is the distance between the actual developmental level as determined by individual processing and application of content and language knowledge, and the level of potential development achievable through the collaborative processing and application of content and language knowledge with (an) adult(s) or peer(s). The ZPD is the distance between the actual management of one's own learning and the potential level of self-management of learning when working with (an) adult(s) or peer(s).

According to Meyer (2010: 15) scaffolding in CLIL serves the following purposes: it reduces the cognitive and linguistic load of the content/input; it enables students to accomplish a given task through appropriate, supportive structuring; it supports linguistic production (output) by providing set phrases, subject-specific vocabulary and collocations and helps students to verbalise their thoughts appropriate to the subject matter boosting CALP.

In CLIL there are key foci which should be scaffolded. These are content knowledge, language and concepts; language; and cognition and learning. All of these must be considered in terms of input, processing and output. Scaffolding learner output is very

important. Learners must know that they can express their knowledge and understanding through non-verbal as well as verbal means (Ellison, 2010b: 26). Hill and Bjork (2008: 94) provide a useful guide for teachers which combines second language acquisition levels with levels of thinking. Cummins (1998: 38) suggests the following "contextual supports" which could be applied in immersion, content-based and bilingual education situations. He suggests that these represent a "philosophical position" with respect to education and an argument for providing more cognitive challenge:

1. Activating students' prior knowledge and building background knowledge (through the L1 where necessary).
2. Modifying instruction to build sufficient redundancy into the instruction (e.g. through paraphrase, repetition, demonstration, gestures).
3. Use of graphic organizers to transmit conceptual content.
4. Cooperative learning and other forms of project work that encourage students to generate new knowledge rather than just consume information.
5. Creative use of technology as a 'cultural amplifier' (e.g. research using CD-ROM encyclopedias or the World Wide Web, word processing and data analysis programmes to produce reports of project work, sister class networking with distant classes in pursuit of non-trivial bilingual projects, use of video cameras to create video 'texts' for real audiences).
6. Integration of reading and writing in a wide variety of genres with all of the above. (Cummins, 1998: 38).

Teachers involved in CLIL must take into consideration scaffolding strategies when arranging classrooms, planning lessons and designing tasks and materials, as well as delivery of their lessons. They must use all available teaching aids at their disposal in order to facilitate learning and ensure that meaning is conveyed appropriately. Visuals and realia, graphic organisers, and effective use of the board, for example in the use of substitution tables which will provide the language needed to communicate ideas, are all useful scaffolds in the CLIL classroom. These are as important for older learners as they are for younger learners in the CLIL context. This is especially important as abstract concepts are difficult to understand (see Massler *et al*. (2011: 66-95) for a vast array of techniques for verbal, content, and learning process scaffolding for CLIL).

In the academic year 2009 – 2010, the author undertook small-scale research into the scaffolding strategies of two student-teachers who each gave a CLIL lesson during their teaching practice. The purpose of the study was to design an observation tool that could be used to detect evidence of scaffolding in their lessons as well as identify further

strategies used by them in order to develop an accumulating taxonomy of strategies. The research involved conducting a literature review of research and teacher education publications (CLIL and EFL). The development of the observation tool took into consideration the key features of CLIL pedagogy and drew on ideas from existing tools well as strategies common to best practice in ELT. Strategies were organised into three main categories: planning, materials and delivery of lesson. The section on delivery of lesson was further divided into sub-categories of teacher's use of language, teacher talk, modifying language, communicative functions to support learning, supporting content, and supporting language (see Appendix 1). The tool became a useful checklist for the teachers involved in the study of this thesis when preparing their CLIL lessons.

2.5. Materials and tasks

In CLIL, materials and tasks adapted or produced by teachers should take account of the 4Cs: content, communication, cognition and culture. This is no easy feat for teachers especially when it comes to maintaining quality with regard to the degree of challenge within them. Mehisto (2012: 17-25) has drawn up ten criteria for the development of quality CLIL materials. These are, that quality CLIL materials:

1. Make the learning intentions (language, content, learning skills) and process visible to students.
2. Systematically foster academic language proficiency.
3. Foster learning skills development and learner autonomy.
4. Include self, peer and other types of formative assessment.
5. Help create a safe learning environment.
6. Foster cooperative learning.
7. Seek ways of incorporating authentic language and authentic language use.
8. Foster critical thinking.
9. Foster cognitive fluency through scaffolding of a) content, b) language, c) learning skills development helping students to reach well beyond what they could do on their own.
10. Help to make learning meaningful.

The learning context and choice of methodology to develop natural use of language in real acts of communication is important in CLIL. In order for materials to contribute to this there needs to be a consideration of how they will be used. As Mehisto (2012: 22) points out "materials need to incorporate ways of using both the content and language in authentic ways". This may mean adapting or 'enhancing' genuine texts, for example, to make language and content more accessible by using scaffolding techniques which

include highlighting key words, providing visual stimuli, glossaries in L2 or L1. Tasks involving the text may require the learners to represent the key content in a different format, for example in a diagram or table, which will provide evidence of their understanding.

Cognition is one of the key drivers of CLIL. Indeed if students are to really understand subject content it must be presented to them in such a way that they are able to interact with it and construct meaning for themselves and with others. This demands that teachers be skilled at tasks and materials design that supports this. However, this is extremely difficult to do where there is an additional language. When designing materials and tasks, the teacher needs to be highly conscious of the cognitive and linguistic demands which are being made of learners. If these are not appropriately balanced, task achievement will be compromised and learners demotivated. Teachers have to be careful not to ignore either language or content. They must stay true to the content subject and the learning demands made of it, for example to analyse, interpret and report in a science class. When designing materials, teachers need to bear in mind that learners need frequent exposure to structures and language sequences. Repetition in materials will help long-term memory as will activities which require further repetition of language, in addition to cognitive engagement and manipulation.

A useful guide for teachers when deigning tasks and materials is the CLIL matrix (see Figure 4. featured in Coyle *et al.*, 2010: 43 and also Dale *et al*., 2011: 47 for a more illustrative diagram).

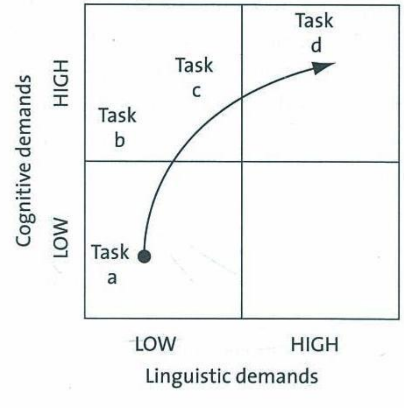


Figure 4. The CLIL Matrix (Coyle *et al*., 2010: 43)

This helps teachers to balance or grade linguistic and cognitive demands progressively. It is a delicate act of balancing known and new language and content until scaffolding can be gradually removed. An imbalance of these will lead to easily achievable or completely unachievable tasks. Consideration must be taken of how learners are presented with the content (the input) how they process this through materials and tasks which stimulate learning, and how they show that learning (output) (Coyle *et al.*, 2010: 87). This implies more than just producing materials, it also requires a consideration of roles of teacher and learners in the classroom. Affective and cognitive challenges are acute in CLIL. Self-appraisal and activities which draw attention to the metacognitive aspects of learning are useful for both teachers and learners. Learning goals are more important than performance goals in CLIL (*Ibid*.: 89). This is particularly important where two subjects (content and foreign language) combine, and where one may be liked less than the other when addressed separately. Although there will be an element of transmission teaching, CLIL is essentially learner-centred where learners engage in constructing meaning together. It is important that teachers monitor this carefully so that they can gauge how far learners are grasping content concepts.

As CLIL is highly contextualised, the task of finding or designing appropriate materials is usually left to the teachers themselves. Although there are increasing amounts of material available from online teaching communities that have pooled their resources for the benefit of others, fee-paying sites, and international publishing companies that have produced coursebooks and other resources, these still have to be adapted to suit the very specific CLIL context in which the teacher is working. Many have been keen to cash into CLIL. This is evidenced in publications which mention CLIL on their book covers, but the contents are sometimes little more than poorly adapted ELT materials. This does little to help the cause of the CLIL practitioner. Teachers may have the choice of adapting already existing materials or producing their own. This can be time-consuming, but ultimately more beneficial as materials will be tailored to the needs of learners in that specific context. The production of materials can be a laborious and time-consuming task, and is frequently cited as one of the most negative aspects of the experience for teachers, yet it can also be the most rewarding.

2.6. Assessment

Assessment of learners in CLIL contexts is a thorny issue and one of "uncertainty" for teachers (Coyle *et al*., 2010: 114). There are a number of reasons for this that relate to what and how to assess which are influenced by the specific contexts in which CLIL takes place. One 'dilemma' for teachers is in determining the focus and balance for assessment, whether on content, on language or on both. This will be influenced by the model/type of CLIL adopted and the main goals of the programme. These may be solely focused on language attainment, for example. CLIL learners and teachers are often under pressure to obtain better or similar results to L1 instruction in the same subject. There is also the issue of whether other features such as cognition and culture, learning processes, interpersonal and intrapersonal learning, should also be assessed, as well as the possible effect of one on the other.

In order for there to be credibility in CLIL, assessment, and summative assessment in particular, is essential. It is through performance results that stakeholders will be able to gauge the extent to which CLIL is working in their context. However, as Coyle *et al.* (2010: 112-113) point out, a range of assessment types are essential for an all-round picture to emerge. This should include formative assessment or "assessment for learning" whereby learners' development is frequently checked against specific criteria in order to see whether progress is being made. This type of assessment allows teachers and learners, if they are involved in self-assessment, to diagnose strengths and weaknesses and plan future action accordingly. As with other fields of learning, a range of assessment types may be used. In fact these should be advocated if assessment methodology is to mirror and be part and parcel of regular classroom practice. In CLIL, this would mean assessing learners individually as well as within a variety of interaction patterns since CLIL advocates learners working together to make sense of new content knowledge and concepts, and using language to communicate this to others. This will involve both receptive and productive skills. This covers *how* to assess. The trickier part for teachers is deciding *what* to assess.

It is debatable whether content and language should be assessed independently in order to target specific competences in each or whether this should be done at one in the same time. It is also important to bear in mind the focus at the time of teaching and whether this was on language or content. The difficulty is that it is not always clear whether

understanding of a content concept is the result of not knowing the concept or of not having the linguistic competence to express or apply this knowledge. Coyle *et al.* (2010: 130-131) stress that "[c]ontent knowledge should be assessed using the simplest form of language which is appropriate for that purpose", and that "[l]anguage should be assessed for a real purpose in a real context – sometimes for form/accuracy, sometimes for communicative competence and/or fluency". When assessing learners, teachers will have to develop a range of techniques which distinguish between these overlapping competences. This may be done through varying exercise types in written tests which require different uses of language and language skills, as well as interpretation and application of content knowledge and principles which demonstrate understanding of the 4Cs, for example, completing diagrams, answering true/false questions, matching sentence halves or providing fuller answers justifying choices and explanations.

Frequently other issues dictate whether learners are assessed for content ability in the L1 or L2. This needs to be weighed up with demands made on teachers to fulfill national curriculum requirements, frequently mentioned as an obstacle to assessment in the additional language. The pressure on teachers to conform to local or national examination systems often forces assessment and final testing of content in the L1. Assessing content in the mother-tongue is often a decision which is taken on supposedly pragmatic grounds though there is great potential for failure if learners have not been exposed to the specific content in the mother-tongue. This is often the case in maximum exposure CLIL contexts as opposed to short term or modular CLIL. It is clear to see that such an approach ignores identification of learner ability in the additional language though it may be argued that it is even more of an indication of ability in L1 and L2 in transferability of skills.

Massler (2011: 119) states that in testing in CLIL, L1 terminology should be included in tests which use the L2. She justifies this stance by stating that these are important for the students' academic progression in the first language. She suggests that children should be allowed to choose the language in which they respond if the focus is on content knowledge (*Ibid.*: 121). Coyle *et al.* (2010: 131) assure practitioners that scaffolding during assessment "is not 'cheating' – we need to assess what students can do with support before we assess what they can do without it". Assessment in CLIL is indeed a difficult issue and one that calls for more discussion and dissemination from

more cases that reveal procedures used which may help guide other practitioners as to what is best for theirs.

3. Benefits of CLIL

Benefits of CLIL are documented in the literature from the qualitative evidence base of small-scale studies and a few larger empirical ones, and from observations of pioneers in the field. These benefits relate to the wider society, learners and teachers. Benefits to the wider society and Europe at large relate to linguistic diversity, economic capital of knowing and using more than one language, social inclusion, egalitarianism, gender equality, a potential increase in foreign language use and positive attitudes to learning them, cultural awareness and intercultural understanding, and internationalisation in educational sectors (see Marsh, 1998: 53; Marsh, 2002: 173; Muñoz, 2002: 36; Coyle, 2007: 548; Lasagabaster, 2008: 31; Lasagabaster and Sierra, 2009a: 14-15).

There are numerous affective, cognitive, linguistic, social, and other educational benefits for learners. Learning language in a CLIL classroom may be enhanced by a lowered affective filter as there is less pressure to be accurate in the foreign language. As learners find that they can communicate effectively and fluently, and understand complex content through the foreign language, so their confidence increases as does their motivation. This also leads to more risk-taking (Muñoz, 2002: 36; Pavón and Gaustad, 2013: 84). There may also be an enhanced 'discourse space' and more active participation from learners brought about by the novelty of the L2 for both learners and teachers. Their roles may be (positively) reappropriated (Dalton-Puffer *et al.*, 2010: 280). They become more adept at problem-solving and working with others. Although CLIL is cognitively demanding for learners, this can lead to an increased ability to process input, higher levels of concentration, and a broader capacity to think. This can also improve meta-cognitive ability (Marsh, 2000: 8). CLIL improves learners' linguistic ability, particularly vocabulary learning skills, especially of specific terminology, and grammatical awareness. Learners develop good receptive skills and communicative competence (Lasagabaster, 2008: 31; Dalton-Puffer (2008a: 143). It also helps to develop metalinguistic awareness of their L1 and language learning strategies (Lorenzo, Casal and Moore, 2010). CLIL helps to develop learners' study skills and their autonomy.

For most teachers involved in teaching CLIL, this educational approach marks a significant departure from their usual practice. Those involved in teaching it will likely have come from a professional background which did not prepare them for it. They will have formed beliefs about teaching and learning which have not included CLIL. For these teachers (in a majority), CLIL poses a veritable challenge – to professional practice and self-esteem. Ioannou-Georgiou (2012: 497) states that "teachers venture into CLIL in search of something new and professionally fulfilling and appreciate the professional development they acquire through their involvement". The experience will demand a large amount of reflection by those teaching it, not least because it pulls teachers out of their comfort zones and confronts them with new professional challenges which in turn will cause them to ruminate on their regular practice. This could bring about change in attitudes or practices on different levels, both personal and professional. Only through experiencing and reflecting on it systematically will this be revealed.

It is acknowledged that there are many benefits to teaching involved in CLIL (Kelly *et al.*, 2004: 77). Such benefits include a better understanding of educational content, better knowledge of subjects, improved ability to select and design tasks and materials, improved awareness of the relevance and importance of language in transmitting content and development of cognition, and improved range of techniques and strategies to enhance learning. CLIL encourages teachers to experiment with new ways of working in order to reach learners. They become more conscious of learners' linguistic needs and strategies required to make input comprehensible and output possible. They also become more linguistically-aware of their own language competence and of the importance of language across the curriculum. In addition, CLIL connects subjects and subject teachers, bringing together knowledge and expertise which can be exchanged and fused into new ways of working (Coyle *et al.*, 2009: 18). 'CLIL teacher' can become a dimension of a teacher's 'professional identity' where they may use skills developed through CLIL in their future teaching careers.

4. Concerns

In addition to affording a number of benefits, CLIL also raises a number of concerns. Baetens Beardsmore (2002: 24) highlights four pertinent fundamental questions regarding CLIL for learners. These are addressed below.

1. “The L1-problem: will L1 develop normally despite an important amount of instruction time being conducted in L2?” CLIL is a plurilingual approach which supports both L1 and additional languages. In many contexts, the L1 and additional language are used in the classroom. Code-switching and translanguaging strategies may be adopted in order to facilitate learning and safeguard the mother-tongue. As a modular approach to CLIL is adopted in the majority of cases, content language knowledge in L1 will be covered and recycled regularly. Wolff (2005: 18) suggests that the CLIL classroom should not be monolingual, but one in which functional bilingualism operates, “using the mother tongue and mother tongue materials when it is necessary to promote a multiperspectival, contrastive and integrated view of content”. This can help to avoid gaps in mother-tongue development of content terms. However, with regard to knowledge of content concepts, especially procedural knowledge, this matter is more complex and little is known (*Ibid.*: 19).

2. “The L2-problem: will L2 really develop better if an important amount of instruction time is conducted in it?” The benefits mentioned above provide the answer to this question. However, it has been noted in some contexts that there have been no substantial gains in written competence, non-specific language, pronunciation, and pragmatics (Dalton-Puffer, 2008a: 143). Darn, (2006: 6) cautions that CLIL may backfire with respect to L2 development as strategic use of language may be restricted to the classroom and not extend beyond it. In this way, it is no different to foreign language lessons or perhaps even worse as CLIL focuses mainly on CALP and not BICS of which there may be more opportunities to develop outside the classroom in everyday life.

Mehisto *et al*. (2008: 20) state a number of parental concerns namely that CLIL learners will fall behind their L1 counterparts. These authors ally these fears by stating that CLIL learners do as well if not better than other learners in L1 tests in reading, writing and listening. They suggest that this is a result of the metacognitive linguistic awareness that is more highly developed in CLIL learners enabling them to better compare languages and make better linguistic choices to communicate precise meanings.

3. “The subject-problem (school knowledge): does L2 complicate the subject learning and slowdown progress in the curriculum subject?” It is possible that learning may be

slower in CLIL especially at the beginning as learners need time to get accustomed to the approach. However, once they have become familiar with it, CLIL learners do as well or better than their non-CLIL peers (Marsh, 2000: 11). This is due to their higher level of tolerance and persistence when dealing with complex tasks, deeper semantic processing, and high levels of motivation. There is, however, some concern that teachers may inadvertently 'water down' content in order to make it more easily accessible to learners (Coyle *et al*., 2010: 44).

4. "The socio-psychological problem: is bilingual education appropriate for any student profile?" CLIL appeals to a wide-range of learners of varying abilities in subjects including foreign languages. There is nothing to support the claim that it is only for academically-gifted students although this may be exacerbated where CLIL programmes are voluntary (and possibly fee-paying) and are attended by children of the more economically-stable sections of society. Some studies have attracted criticism on these grounds (see Bruton, 2011). In some contexts linguistic ability may be an entry criterion, in others it is not. To make any such restrictions would be to disenable the inclusivity of the approach. It is imperative that stakeholders are aware of this and that teachers are aware of learner needs as they are preparing to teach, and whilst in the CLIL classroom.

CLIL is for learners of all ages from pre-school to tertiary level and beyond. The 'mainstreaming' of CLIL in the state sector has meant that where it is offered, it is open to all learners from all socio-economic stratas. State school systems which do not stream learners according to academic level have ensured heterogeneity in classroom contexts. CLIL is not excluded from such classrooms. In fact, it is said that CLIL works well in such environments. It also works well for all types of learner since all can benefit from broad exposure to the foreign language. Not everyone possesses the aptitude or 'gift' to learn languages particularly if they are taught in a form-focused way. This is why some students fail miserably in foreign language classes. CLIL offers such students a fresh opportunity to learn a foreign language in a more practice-oriented environment. In this way CLIL is 'inclusive'. Low intellectual ability is not necessarily a handicap (Marsh, 2002: 73). Learners who have previously found learning foreign languages difficult have blossomed in the CLIL classroom as the focus is not directly on the foreign language, but on the content.

CLIL does pose many challenges for learners. In the CLIL classroom, the student is a learner of both content and foreign language. These previously separate roles merge into one (Wolff, 2005: 16). If teachers adapt their teaching methodology, as has been stated they should, to a more thinking- and learning-focused approach which requires more active participation from learners as opposed to the more traditional transmission-oriented approach, then it is clear that learners will have to make more of an effort to adapt to this change in teaching style. Richards and Rodgers (2001: 213) emphasise these demands in CBI:

> CBI is in the 'learning by doing' school of pedagogy. This assumes an active role by learners in several dimensions. Learners are expected to be active interpreters of input, willing to tolerate uncertainty along the path of learning, willing to explore alternative learning strategies, and willing to seek multiple interpretations of oral and written texts.

Cognitive demands on learners are exacerbated in CLIL contexts. Learners have to process content given in another language code and be able to communicate their understanding of it during tasks involving others. The teacher has to be acutely aware of this (a difficult thing to be if s/he is also adapting to a new way of teaching) giving learners more support and time to decode and manipulate. Learner needs can be taken into consideration in the foreign language classroom if this is the same as the additional language of the CLIL class. If run parallel to CLIL lessons, foreign language lessons can provide important 'language rehearsals' for the CLIL class – key content words and structures as well as functional exponents common to academic disciplines. Learners can also be methodologically prepared if foreign language teachers use more task-based methods.

Concerns related to teachers of CLIL centre on linguistic proficiency in the additional language (see section 1.4.3. p. 64) and time and workload given that CLIL involves a change in practice for most (Mehisto *et al*., 2008: 22; Kiely, 2011: 165; Ludbrook, 2008: 21-22). Given the lack of ready-made materials that suit individual contexts, teachers need to spend more time (often unpaid) searching for materials or designing their own. There is a heightened productivity dimension to CLIL. In addition, more time is required to plan for CLIL lessons as this means a re-adjustment in methodologies (Coyle *et al*., 2009: 16). Time is also needed for teachers from content and language

areas to collaborate. Teachers share responsibility for learning across the curriculum. They must adhere to the same goals and cooperate effectively for the fulfillment of them. Thus, CLIL requires a very high degree of teacher commitment. It is easy to see how programmes will not be successful without this. Graddol, (2006: 86) suggests the "cultural change" in working relationships that CLIL demands is difficult to achieve. Sustaining CLIL may also be difficult on the grounds of teacher availability and commitment to continuity. This may involve teacher professional development which may be costly.

CLIL may also be perceived as a threat to teachers and their subjects, particularly language teachers. However, the support offered by foreign language classes in the curriculum is regarded as highly important to the successful functioning of many CLIL programmes. It is said that this kind of learner preparation may even raise the profile of L2 teachers (Clegg, 2006: 33). CLIL presents an opportunity and a means for language teachers to "regenerate their profession" (Coyle *et al*., 2010: 12).

5. CLIL vs. English Language Teaching (ELT)

There are a number of perspectives and conceptions of CLIL which make it comparable with modern foreign languages teaching and with English as a foreign language teaching (ELT) in particular. Dalton-Puffer *et al.* (2010: 2) state that it can be "construed as a foreign language teaching *method*". This view is supported by the all-encompassing umbrella of what could constitute CLIL. Content based instruction (CBI) of the type that is language-biased is considered a form of ELT and CLIL. It is this that has led many foreign language teachers to the claim that they have been doing CLIL for ages, and that it is 'nothing new'. Many of those involved in the conception of CLIL and responsible for propelling it forward are from the world of modern foreign languages teaching. The commercial side of ELT, in particular, has been relatively quick to profit from it.

The additional languages of CLIL are numerous though this is not to distract from the fact that English is the language which dominates most CLIL contexts. There are a number of reasons for this of which stakeholders are all too aware. The status of English as the global language of economics and commerce has put it in an unprecedented position. This has had a corresponding effect on national policies for foreign languages

and academic communities of all types. For example, English as a medium of instruction (EMI) is rapidly being taken up by tertiary institutions in an effort to attract international students to their faculties. The internationalisation of universities in Europe has become a highly competitive business. The popularity of English and EMI has prompted echoes of the linguistic imperialism debate (Marsh, 2006: 29-31). Yet, the fact is that English is shaping the 'new linguistic order' owing to the impact of the converging forces of globalisation and the new technologies which have taken it as the lingua franca of economics, trade and commerce, as well as virtual leisure, like surfing the Internet. For many, English is the obvious choice for the 'pragmatic' reasons mentioned above (see Marsh *et al*. (2013) for an in-depth analysis of EMI in higher education programmes). Dalton-Puffer (2011: 183) states that CLIL "effectively means CEIL, or Content and English Integrated Learning" owing to the prevalence of English as the additional language in CLIL contexts. It is often sold on linguistic aims rather than content (Dalton-Puffer *et al*., 2010: 6) largely ignoring all the other 'added value'. Stakeholder perspectives have also contributed to this in some parts of the world where the prevailing view is on the high stakes of language learning as opposed to the added value related to cognition and methodological change.

5.1. Similarities and differences

A closer look at ELT and CLIL will reveal that there are indeed similarities. As Dalton-Puffer (2008b: 16) acknowledges, "It is an important realization that CLIL and EFL are not only different from each other, as is routinely stressed in CLIL rationales, but that they are also the same in even more respects". In their summary of research studies Dalton-Puffer *et al.* (2010: 281-282), state that CLIL lessons provide similar contextual conditions to EFL such as roles of teachers and learners and discourse rules of interaction, but differ on other levels such as the redistribution of expertise, more semantic focus because of content, as well as limitations in role-flexibility, and exclusion of personal topics.

There are distinct differences which are wide enough to place CLIL in a category of its own. Owing to its dual focus, CLIL surpasses any claims to subject territory. Its objectives are broadly educational (Marsh, 1998: 52). CLIL is multi- and cross-disciplinary and a form of "linguistically-enhanced" education (*Ibid.*: 53). Kiely (2011: 158) adds further fuel to this stating that "understanding CLIL as innovation places the

language at centre stage: CLIL is not introduced because learning in subject areas such as science or art is ineffective or insufficient; rather it is to support more effective foreign language learning". Wolff (2002: 48) describes CLIL as "superior to traditional foreign language teaching and learning". One commonly cited reason for this is the greater exposure to the foreign language in CLIL programmes. However, there is much more to which it is owed this acclaim. Wolff goes on to suggest that there are three factors in CLIL which make learning optimal and reflect modern pedagogical principles. These are: authenticity related to content and interaction - in the foreign language classroom this is "pseudoreal and ficticious"; learning strategies and techniques to which CLIL is strongly geared owing to the nature of its content which leads to the development of study skills and more learner autonomy; and collaboration where learners work together on achieving relevant shared goals (*Ibid.*: 48).

5.1.1. Aims

The overall aim of ELT is communicative competence. The term BICS is often used to establish the difference in communicative competence as a goal of ELT, and CALP as a goal of CLIL. In the foreign language classroom, focus is essentially on the language. The language is the subject of learning. Focus on form has traditionally been paramount. There are aims for the development of language (structures, vocabulary, grammar) and language skills (reading, writing, listening and speaking). There is a prescribed order to what language is taught, 'simple' before 'complex' structures, for example. This does not apply to CLIL where the content determines the language used. Aims in CLIL focus on the subject content – its main principles, notions, concepts, - what the learners have to know, understand, and do. This knowledge, skills and understanding are communicated through the additional language. Meaning is paramount. Therefore, within this there are various other equally important foci or (sub) aims/goals – for language, cognition, and culture. Of course, in the foreign language classroom, content, cognition and culture also play a part. Language is seldom learned without content. A glance at the contents page of any English language coursebook will give an indication of the consideration of these 'goals' as will national programmes (see 'Metas Curriculares do Inglês[14]) with the exception of 'cognition' or 'thinking skills'

[14] The Metas Curriculares Ensino Básico: 2º e 3º Ciclo Inglês (2013) are a set of attainment targets for the English language in the Portuguese national context which cover seven domains of reference: listening, reading, spoken interaction, spoken production, writing, intercultural domain, and lexis and grammar.

(though this has very recently become a more explicit focus and something of a 'trend' in ELT). Thinking skills are seldom developed to any great extent in the foreign language classroom. However, the content of CLIL lessons is academic subject content which needs to be learned and understood in order to achieve success in that subject. In the foreign language classroom, the content is not usually related to academic subject content. This is not to say that it is less serious content (though frequently it is). The difference here is that in the foreign language class, content is used to achieve language aims whereas in the CLIL class, it is used to achieve content aims. Language is used to fulfill these content aims, and there may be focus on the language in the CLIL classroom, but for exclusively functional purposes. There is authentic use of language for the learning of authentic academic content. This is integrated and immediate. In the foreign language classroom, language is 'taught' for the express purpose of developing communication using activities which focus on accuracy and fluency. The language is practiced in the classroom for some future use beyond it, as in "learn now for use later" which make the circumstances a lot less authentic (Coyle *et al.,* 2010: 10).

5.1.2. Approaches/methodology

A review of ELT over the decades indicates an endless pursuit of the best method to teach the English language. Grammar translation and structuralist approaches treated the learning of language as mechanical operations involving transformations and substitutions. With the Audio-lingual method came a focus on oral drilling (based on behaviouralist approaches to learning). Situational Language Teaching was a move towards a focus on contextualising language needed for specific situations. With Communicative Language Teaching or the Communicative Approach (1970s) came a focus on meaning and function of language in authentic contexts. Techniques and strategies typical of this approach were based on the principle of the information gap and trying to authenticate a real need to use the language within the confines of the foreign language classroom. The Communicative Approach was, and still is, a dignified attempt to bring authenticity into the classroom. The Natural Approach (Krashen and Terrell, 1983) based on the natural acquisition of languages through exposure to input that is comprehensible was another such approach that attempted to make second

---

Domain levels for year groups across the two cycles are closely aligned with the CEFR. Available from: file:///C:/Users/User/Downloads/metas_curriculares_de_ingles_homologadas_13_de_maio_2013%20(1).pdf

language learning more authentic. Based on the way first languages are acquired in early childhood through exposure to comprehensible input, the Natural Approach is a genuine attempt to do this in formal learning settings. However, it is focused on language acquisition not content principles, though it is debatable if these can be completely detached. There is difficulty, too, where there are foreign language syllabi in schools and pressure on teachers to cover specific grammar and lexis within specific time restrictions which often forces less than natural approaches. This approach maybe suitable for early foreign language contexts where there are fewer syllabus restrictions.

Task based learning (TBL 1980s/90s) was an attempt to combine elements of the Communicative Approach within a tri-part framework involving problem-solving, dissemination of results, and focus on the foreign language. It was (and still is) seen by many as a welcome alternative to the traditional Presentation, Practice, Production procedure (PPP). In TBL the task is at the centre of the language learning process although language itself is not specifically focused on until after the task has been completed. TBL consists of the following procedure: a *pre-task* stage where learners are exposed to a model of the task through demonstration or text; a *task* stage where the task is done by students, usually in groups. This culminates in a dissemination of the task outcomes from each group. This allows learners to use the language to articulate their understanding of the task. Finally, there is a *language focus* stage where the teacher draws attention to language used during the task, highlighting strengths and difficulties of language functions and forms (see Willis, (1996) for a comprehensive account of TBL illustrated with sample lesson frameworks). TBL is frequently compared to PPP as the reverse of this procedure, allowing students to focus on the task as opposed to language. In principle, it is meaning-focused and aims are essentially task-oriented though it is difficult to separate them from language aims and indeed, difficult for teachers to consider tasks without first having thought about the language they want learners to use, which makes TBL less than authentic in many respects. TBL has not taken off to any great extent in state systems where restrictions on syllabi and time abound.

5.2. Mutual gains: incorporating best practices

It could be said that CLIL draws on many educational practices in ELT. It incorporates a number of features of approaches and methodology especially the Communicative Approach where focus is mainly on meaning, use and fluency rather than form and

accuracy. Marsh (1998: 53) suggests that CLIL can be seen as “a 1990s extension of the functional-notional (communicative) approach introduced in European language teaching in the mid-1970s”. Ioannou-Georgiou (2012: 495) states that CLIL “can be argued to be the most recent developmental stage of the communicative language teaching approach”. Darn (2006: 3-4) states that CLIL incorporates many aspects of communicative ELT methodology namely in relation to: situational learning in real-life contexts; language acquisition – the thematic nature of CLIL facilitates the creation of functional-notional syllabuses; natural approach – exploring the language in a meaningful context using the language to communicate for a variety of purposes where fluency precedes accuracy and errors are a natural part of learning; motivation – language is not an end-goal but a means to get to content which the students are interested in; current ELT practices which value lexis over grammar, fluency over accuracy, and language ‘chunks’ as in the lexical approach. He states that it is similar to an integrated skills approach and uses strategies to guide and support language learning in much the same way through reading and listening strategies and written and spoken frames.

TBL is often cited as a procedure which may well fit some CLIL contexts owing to its focus on task achievement bringing about communication between students within and between groups in the classroom. Ludbrook (2008: 23) states that in TBL, “two-way tasks force the actors, in this case the teacher and the learner, both non-native L2 speakers, to negotiate for meaning”. It is said that CLIL has “breathed new life” into such methods (Lorenzo, 2007: 28). It could be argued that both CLIL and ELT have something to offer each other. CLIL content teachers may use strategies and techniques common to language teaching such as those which draw attention to language - mini drills for pronunciation, language frames or substitution tables for writing texts, highlighting key words/structures, word families, lexical sets, prediction, inference and exploiting redundancy in text preparation, to name but a few. ELT teachers may address the role of content in their lessons, consider how they may develop students cognitive skills by, for example, asking questions which promote more higher order thinking skills; they may use more authentic materials and examine their cultural content, perspective and significance. CLIL may also offer the latter group a different perspective on language teaching itself, that it may go further beyond the language syllabus. CLIL and ELT have the potential to mutually shape best practice in each field.

6. ELT and/or CLIL for Young Learners

6.1. The case for the early start

Early foreign language learning, particularly of English, has become the prerogative of many ministries of education across Europe and is a trend that has gathered pace in recent years. In this thesis early foreign language learning is taken to mean that which involves primary school children between the ages of 5 to 10 years old. Justification for the early start has been based on European strategies to improve foreign language competences of school children in already tightly packed curricula. Lowering the starting age is one way of attempting to improve standards while not exerting undue pressure on existing curricula in lower and upper secondary schools. It is also based on hypotheses which suggest that the earlier children are exposed to other languages, the quicker and easier it is for them to pick them up. It is widely believed that 'younger is better' when it comes to foreign language education. Such beliefs are founded on issues related to first language acquisition and the apparent ease with which children seem to pick up their mother tongue. This has led to assumption that the same holds for second language acquisition. The overwhelming acceptance of the notion of a critical period in childhood beyond which it is believed languages become more difficult to acquire has formed part of the rationale on which ministries of education have been allowed to introduce foreign language learning into the primary curriculum.

Most support for 'younger is better' centres around the Critical Period Hypothesis (CPH) which suggests that there is a critical or sensitive period in a child's life beyond which the first language is difficult to acquire. This period is suggested to begin at around 5 years and end at around puberty when lateralisation of the brain is completed (Lenneberg, 1967). Before puberty, the plasticity of the brain allows certain functions to be assigned to either right or left hemispheres. It is believed that language functions are concentrated mainly in the left hemisphere. The neurological argument for the CPH has added weight to its application to second language acquisition to the point that is has become treated as "truth rather than hypothesis" (Snow, 1980: 149). This has led to the assumption that children will be able to acquire a second language as well as the first fluently and with accurate pronunciation. The CPH has been mainly applied to pronunciation (see Scovel, 2000) though some studies suggest it may also apply to other aspects of language acquisition, for example morphology (Patkowski, 1980, and Johnson and Newport, 1989, cited in Lightbown and Spada, 1993: 61-64). It is believed

that after the critical period, older learners are not able to acquire a language in the same way and must depend on other abilities in line with general learning skills. This has strongly supported the case for foreign language lessons commencing earlier than in secondary schools and in some cases as early as pre-school.

The 'readiness' for certain types of input is an important issue in teaching young learners. References are often made to Piaget's stages of cognitive development and in particular the transition from 'concrete' to 'formal' operations said to take place at around puberty when the older child becomes more capable of abstract thought. However, given appropriate support, young learners can break the barrier of readiness. In terms of second language learning, older children are able to understand the rule-governed system of a language and rely less on concrete support. They are able to learn about language and apply their knowledge consciously. Krashen (1989: 8) refers to this consciousness as a type of "monitor" controlling the output of utterances. Such ability facilitates quicker, more efficient learning and provides some justification for a later start. However, it is also said of older learners, that this increased awareness of language can make the learner more inhibited as they may not want to risk losing face should they make mistakes. Thus, too much awareness could have a negative effect. In contrast, younger children who are not capable of abstract thought, will not benefit from explicit reference to rules nor will they be able to draw on any knowledge of them unless they have 'noticed' patterns in the language. Younger children 'acquire' rather than 'learn' languages.

There are many affective factors which are related to age and second language acquisition. Motivation is a key issue, though whether this is age-related is very hard to prove. It is believed that younger children are more intrinsically motivated than older children who have the added preoccupation of exams. As children grow older they come to be more self-conscious and as a result may become more inhibited. In order to preserve their self-esteem they may hold back rather than offer or cooperate in the second language classroom. Such reserve may prevent them from succeeding in the language by creating psychological barriers to learning, strengthening what Krashen refers to as the "affective filter", (Krashen, 1989: 10). Peer pressure and a struggle to find one's identity make this a potentially difficult time with some learners even making a conscious effort not to sound native-speaker-like. Attitudes towards the target

language and learning in general will differ considerably and are influenced by numerous factors including self-esteem, success, peers, and parents' and teachers' beliefs and attitudes. Consciousness of all these factors is likely to increase with age.

Recent research has done much to counter the claim that younger is better. Much has centred around the validity of the CPH. Marinova-Todd *et al*. (2000: 10) claim that "introducing foreign languages to very young learners cannot be justified on grounds of biological readiness to learn languages". Much of this research has been concisely documented and critically debated (see Singleton, 2001; Nikolov and Djigunović, 2006; Marinova-Todd *et al.,* 2000; and Larsen-Freeman and Long, 1991). Evidence suggests that age is not a significant factor in the route of acquisition. Most research relates to the effects of age on the rate or success of SLA. It suggests that in fact older children are quicker, more efficient learners. This is aided by their greater cognitive maturity and awareness of learning strategies. Older learners may more easily grasp the mechanics of languages, understanding them against the backdrop of their own mother-tongue. They are able to understand meta-language and have meta-cognitive skills which allow them to understand how they learn. They may also understand the importance of learning foreign languages for their future study and employment and be extrinsically and intrinsically motivated to succeed.

Early exposure can foster positive attitudes towards the target language and culture and provide a short-cut through the syllabi of middle school and early secondary provided that this exposure is of quality. In other words, optimum conditions must be in place in order to capitalise on the early start. Such conditions would include highly qualified language specialists with pedagogic backgrounds in the teaching of foreign languages to young learners, or primary generalists with a language specialism and good awareness of how second languages are acquired. Stakeholder attitudes are highly important. Ideally the foreign language should be integrated into the curriculum so that it can be part of the holistic and cross-disciplinary ethos which makes up primary education. Primary education is integrationist by default where subject areas feed off each other to educate the whole child (Ellison 2008b). Adding it to the end of the school day would not favour these principles and lead to an isolationist approach. This is evident in many cases and especially in Portugal. Anyone involved in primary education is responsible for the education of the whole child. Quality exposure to the language is extremely

important. This does not necessarily correspond to frequency /length of exposure but a good context for learning, appropriate content, a good model of the language provided by the teacher, and appropriate methodology.

6.2. ELT for Young Learners in Portugal

English language lessons have been offered in state primary schools in Portugal as part of an extra-curricular programme since 2005. The announcement from the Portuguese Ministry of Education in June 2005 that English language would become part of primary education in an 'extra-curricular' or 'enrichment' capacity, met with a mixed response. Though delighted that the time had eventually come, most educationalists were fearful of the short and long-term consequences of what this innovation-at-short-notice could bring. No-one was prepared, least of all the large numbers of secondary-trained English language teachers who were to form the majority of primary modern foreign language 'specialists' in this new context. Lessons were initially offered to 3rd and 4th year primary children aged between eight and ten years old, and a year later the offer was extended to 1st and 2nd years aged six to seven. Lesson time for the former amounted to 135 minutes, and to the latter 90 minutes per week. The amount of time for single lessons varied per school and according to timetabling restrictions. This was 90 plus 45 or three lessons of 45 minutes for the older learners. In its policy statement the Ministry of Education justified the innovation by referring to Portugal's educational and economic deficits and the Common European Framework's goal for the development of a plurilingual and pluricultural consciousness. In addition, it suggested a strategy that seemed contradictory, one that would be generalised and progressive, but decentralised, flexible and consistent. Ministry of Education guidelines provided suggestions of themes (colours, number, school objects, family) and methodologies (Total Physical Response (TPR) and TBL) (see Orientações Programáticas do Inglês no Ensino Básico[15]), but there was widespread variation as to how these were interpreted over the country. Many short fee-paying courses (of around 25 hours in length) were offered to teachers, as well as a free, non-obligatory online course set up by the Ministry of Education for those who were interested. Town councils were in charge of coordinating and financing implementation at local level and could thus determine the distribution of

---

[15] Orientações Programáticas 1º e 2º ano and 3º e 4º ano available from: http://www.dgidc.min-edu.pt/aec/index.php?s=directorio&pid=18

ministerial funds. This resulted in a vast number of heterogenous projects, recruitment of inappropriately qualified teachers and mobility across projects of teachers who were tempted by offers of better payment.

The majority of lessons took, and continue to take place at the end of the school day which leaves both subject and teacher in a position of isolation from the rest of the curriculum and school community. Lessons are based on the learning of vocabulary and simple structures related to themes such as 'the family' and 'animals' which are often repeated over the four years of primary schooling. One of the main aims of the introduction of English language lessons in primary schools was to enrich the existing curriculum, though in the absence of a coherent national syllabus and attainment targets, and little or no horizontal and vertical liaison within and between schools this has little chance of being fulfilled. In addition, until 2013, no adjustments had been made to the English language programme in the second cycle which meant that children were introduced to the same basic structures using similar themes. The fact that English language lessons in primary schools were optional added to the heterogeneity of language knowledge and use in these classes. In short, there has been a definite lack of standardisation across the country despite the efforts of external monitoring from APPI (Associação Portuguesea de Professores de Inglês). With the prospect of English language being made an obligatory part of the primary school curriculum in the very near future, this offers some hope for standardisation in teacher education, recruitment and quality teaching at this level.

6.3. The limitations of traditional ELT for young learners

Traditional ELT methodology for young learners has tended to favour methods such as Total Physical Response (TPR) where emphasis is placed on the development of aural/oral skills, and understanding is usually demonstrated by physical movement (mime/gesture/drawing/colouring). Also common is teaching small numbers of vocabulary items in lexical sets such as colours, numbers, animals, food, and family members using flashcards and realia with further repetition and exposure through songs, stories, art and craft, games and so on, all of which are known to be liked by children and appeal to a range of learning styles. Teaching and learning are based around the fulfillment of basic language objectives and the teacher is in control of the 'learning' situation. Children frequently do exercises which involve copying or repeating words

out of context. Activities focus on testing memory and tend to be cognitively undemanding. There is no thinking apart from recalling words to match with pictures or putting the sequence of a story in the right order. There is little or no cognitive engagement which is essential for learning to take place.

The limited 'fixed' exposure to the language in such programmes does not provide for 'natural' input or opportunity for meaningful output, nor does it address the use of languages for learning (Coonan, 2005: 2). Cameron (2001: xii) states that this limited view does children a "disservice" and does not tap into their "huge learning potential". Identification, repetition or limited production of five or six words is not 'natural'. This is not what happens when a child is learning his/her first language. Children do not learn five or six words and then move on. And what is more, these lexical sets are repeated year on year throughout primary school with little or no adaptation save for a change of teacher. There is little use of the language and next to no learning by doing. Children are exposed to basic grammatical structures in a pre-set order, one structure at a time. There is nothing authentic about this. Making learning meaningful for children is making use of language in the school context itself and also allowing them to be active "sense-makers" in their own right (Cameron, 2001: 4). As Snow *et al.* (1989: 202) put it, "What children know and need to know more about is the subject matter of school". This is a real, authentic context with real content and will continue to be so for many years. This is what justifies an opportunity for CLIL. Snow *et al*. (1989: 202) emphasise the potential for learning that this provides:

> Content provides a cognitive basis for language learning in that it provides real meaning that is an inherent feature of naturalistic learning. Meaning provides conceptual or cognitive hangers on which language functions and structures can be hung. In the absence of real meaning, language structures and functions are likely to be learned as abstractions devoid of conceptual or communicative value. (Snow *et al*. 1989: 202).

Wolff (2005: 21) citing the extensive work of Wode (1999) in second language acquisition, states that younger learners are capable of learning a foreign language where content is more 'academic' and not simply ludic.

6.4. The case for CLIL

The primary context is fertile territory for the CLIL approach. It is, by default, content and language integrated learning in L1. Primary generalist teachers often use holistic, integrationist approaches and do not tend to teach subjects in isolation. A foreign language may also be brought into this 'integrated curriculum' in the same way which would be more 'natural' and in keeping with primary education. According to Coonan (2005: 4) the main tenants of the Natural Approach can be realised through CLIL in the primary context. These are that:

1. Input is central;
2. Respect for the learning rhythms of the learner. No output expected if not ready;
3. Comprehension before production;
4. Oral precedes writing;
5. No emphasis on correctness;
6. Present topics that interest the pupils;
7. Use the 'here and now' principle to aid comprehension;
8. No explicit teaching of grammar. Pupils learn through experiences with the language.

Bringing CLIL to the primary context would seem even more fitting than teaching the foreign language in isolation as a subject in itself. The major difference here, of course, would be that the content is that of the primary curriculum. Making the content of primary English language lessons more relevant to learners has been attempted through cross-curricular language learning using the content of the curriculum on which to pin language learning. It has even been mentioned that cross-curricular language teaching is also a form of CLIL (Brewster, 2004: 1) though it could be argued that there is a strong language bias in cross-curricular teaching. The Portuguese Ministry of Education guidelines for teaching English in primary schools ("Orientações Programaticas 3º e 4º anos", 2005: 14) suggest that teachers incorporate cross-curricular themes ("Temas Intercurriculares") though in the organisational framework for each main topic area (colours, numbers, family, etc) these are given only minor consideration.

Cross-curricular teaching shares characteristics with "theme-based teaching" (Cameron, 2001: 180) and an "activity-based approach" (Vale and Feunteun, 1995: 27). An approach involving the selection of topics which link with other areas of the curriculum is one means of attempting to go beyond simple word level teaching providing more

interesting, exciting ways of learning language through authentic, practical experiences (Brewster, 2006: 11). As Halliwell (1994: 126) puts it, "One of the best ways to make language real is to use it for other learning". Adopting the approach that children learn best by doing, engaging them in practical, hands-on activities will provide stimulating and meaningful exposure to the language. If such activities are cross-curricular, they may involve the use of procedures and techniques, concepts and skills common to other subject areas which are possibly familiar to the child, thus providing important scaffolding when introducing the language. Such activities provide a type of learning environment in which the children are encouraged to experiment and take risks in the process, as well as with the language. They provide for the development of a broad range of learning skills such as problem solving, designing, constructing, understanding a process, and enhance knowledge of notions of such things as weight, time and space. Vale and Feunteun (1995) claim many advantages to approaches of this type. Of the activity-based approach they say that:

- Children study activities which have practical educational value.
- Children are motivated and interested in what they are studying.
- Children are introduced to a wide range of natural English. This language is meaningful and understandable, because the activities are meaningful and understandable.
- Children are taught in English.
- Children are not introduced to English in an artificially pre-determined sequence of grammatical structures or functions; the input from the teacher, and their learning about their world, is in English.
- Children can be taught in mixed-ability groups: children with more English will speak more about the activity they are doing, and help lower-level classmates at the same time.
- The learning focuses on the individual child: each child is encouraged to acquire language at his or her own pace and own manner. (Vale and Feunteun, 1995: 27)

A typical procedure in cross-curricular language teaching is to select a topic, for example, 'the life cycle of a butterfly' and brainstorm activities which link to other areas of the curriculum. Activities may lend themselves to Maths, Science or Drama, for example. The topic provides the coherence and important cognitive organisation for children to relate to. For such activities the teacher will consider the language of the activity – the input and potential output. They will also consider the developmental learning skills which the children will be engaged in. Cross-curricular language teaching may import techniques from other areas of the curriculum such as use of graphs from

Maths or procedures for conducting small-scale investigations and experiments from Science (see Halliwell, 1992: 135-142, for examples of how this may be done). These are techniques which children may be familiar with which helps to reinforce and develop these skills across the curriculum. This approach involves practical hands-on experiences which are often inquiry-oriented and nurture curiosity and the development of cognitive skills. Primary science activities and investigations where there are clear procedures, plenty of demonstration to support understanding of underlying concepts and strategic, scaffolded questioning by the teacher are particularly enriching for children (see Brewster, 2006: 11-21; Gamboa and Linse, 2006: 48-53). Such activities demand a lot of prior planning and good classroom management. Teachers will need to have a very good awareness of children's cognitive needs - for example, concrete and visual support in order to facilitate understanding of abstract concepts. Such an approach is a brave attempt to cover broad educational goals in the language classroom enhancing developmental skills and concepts as well as vocabulary and structures. It is also one means of bringing together language and generalist teachers in a shared quest to make learning more cohesive and meaningful.

6.4.1. Examples of successful CLIL projects for young learners

There are a few published examples of successful CLIL projects at primary level. One such example is the Spanish Ministry of Education/British Council Bilingual Project which began in 1996 and involved 22,000 children aged 3 to 14 in 57 infant and primary schools across Spain. This continued into 38 secondary schools (for a synopsis of the project, see Reilly, 2006: 64-70. For a full description, see Bilingual Education Project Spain: Evaluation Report[16]). The project was a response to poor results of school leavers whose productive competence after years of formal schooling was very low. Around this time, there was a rise in the number of private bilingual schools in Spain. The Bilingual Education Project in Spain focused on mainstream schools and integrated subject areas of Language and Literacy, Science, Geography, History, Art and Design from both the Spanish and English national curricula, and was considered a strong form of CLIL with 8 – 10 sessions of content taught through the foreign language given per week. Teachers involved were a mixture of UK primary teachers, Spanish

[16] Bilingual Education Project Spain Evaluation Report available from: http://www.britishcouncil.org/spain/sites/default/files/pdfs/bep-ingles.pdf

bilingual teachers, Spanish teachers of English and Spanish primary teachers. Notable learner achievements by the end of primary schooling included near total comprehension of English; high competence in reading skills; high level of oral fluency; high evidence of cognitive functioning; ability to work collaboratively compared to non-bilingual peers; independent learning and study skills; personal confidence; higher expectations of achievement. However, the project did reveal some weaknesses in student output especially regarding inaccuracies in speaking and writing. Other challenges related to developing optimum conditions, collaboration between colleagues, training and development needs of teachers for the new approach, and sustainability in secondary schools.

Brewster (2004) comments on the success of a pilot CLIL project in Zurich where primary children were exposed to 90 minutes of language showers per week of rich comprehensible input through a range of topics including Maths and Sports. She mentions that "little output is expected and code-switching is acceptable as long as the children demonstrate understanding in English" (*Ibid.*: 2). Children acquired a large passive vocabulary, developed learning strategies and recognised basic differences between German and English.

From their experience in a Comenius project aimed at promoting foreign languages as tools for learning in CLIL activities in primary schools, Rampone and Krigere (2006: 60) found that cross-curricular language learning in which concepts were developed in both the mother-tongue class and the foreign language class was an effective approach. Both types of class developed concepts, skills and language in a reciprocal way by mixing known with new thus ensuring they were fully developed in both languages. They found that CLIL catered for a variety of learning styles, ensures fluency development and vocabulary enrichment, enhances children's confidence, and increases motivation through use of visual aids, realia, elements of research (experiments) and problems solving.

7. Implementing CLIL

This section examines the motives behind CLIL movement at grassroots level and the pre-requisites for successful implementation of CLIL programmes.

7.1. Grassroots initiatives

It has been said that CLIL has been propelled by a combination of 'reactive reasons' responding in educational terms to global changes, and student dissatisfaction and lowered motivation to learn modern foreign languages, to reviving minority languages under threat; and 'proactive reasons', to enhance learning in general terms and to reinforce the ideal of multilingualism in Europe (Coyle *et al*., 2010: 6-9; Pérez-Cañado, 2012: 315). CLIL is also mentioned as an educational approach that suits the spread of economic mobility and capital, not to mention more 'humanistic' outcomes such as development of communicative ability and intercultural competence. European supre-national institutions have been, and continue to be, actively supportive of CLIL grassroots initiatives in schools and other educational institutions across Europe as can be seen from the frequent publications and projects that they finance. Among more recent publications is 'Talking the Future 2010-2020: CCN Foresight Think Tank' (Asikainen *et al*., 2010). This publication, which received funding from the European Commission Lifelong Learning Programme, identifies needs and ideas for "re-shaping languages in education" (*Ibid*.: 3). It is interesting to note that participants and contributors to the publication were from a range of newly converging fields: e-learning, educational practice and administration, research, teaching training, publishing, and technology.

Curiously, CLIL has been a grassroots initiative on one level and endorsed by EU policy on the other leaving a middle ground of national educational policy for crucial decision-making (Hüttner *et al.,* 2013: 271; Dalton-Puffer, 2008: 1; Dalton-Puffer *et al*., 2010: 5). National education systems (with the exception of Spain and the Netherlands) have not taken it on board to any great extent, probably because CLIL seems to lack a "policy and practice perspective" (Kiely, 2011: 155) or the absence of a single model for replication, so it has been left to educational communities to take it forward. The pace of change can be slow in mainstream contexts. There are still only around 3% of European schools involved in CLIL. However, through small-scale initiatives and grassroots action supported by European institutions, CLIL is extending its scope through Europe. In this way, it has been able to propel itself forward and strive on its own momentum.

7.2. Reasons for implementation

CLIL may be introduced into a school for a number of reasons besides the need to improve the teaching of foreign languages. These may include changing attitudes to languages and cultures, learner motivation, the school profile, or changing the way we teach in general (Marsh, 2002: 65-66). This idea has led to claims that CLIL is more about education in general than plurilingual programmes (Baetens Beardsmore, 2002: 66). Marsh (2002: 66-69), presents five main reasons or 'dimensions' relating to learning and development outcomes each with its own 'sub-reasons' which account for the scope of European CLIL. These are:

1. The Culture Dimension: building intercultural knowledge and understanding; developing intercultural communication skills; learning about specific neighbouring countries/regions and/or minority groups; introducing the wider cultural context;
2. The Environment Dimension: preparing for internationalisation, specifically EU integration; accessing international certification; enhancing school profile;
3. The Language Dimension: improving overall target competence; developing oral communication skills; developing awareness of both mother tongue and target language; developing plurilingual interests and attitudes; introducing a target language;
4. The Content Dimension: providing opportunities to study content through different perspectives; accessing subject-specific target language terminology; preparing for future studies and/or working life;
5. The Learning Dimension: complementing individual learning strategies; diversifying methods and forms of classroom practice; increasing learner motivation.

CLIL may also be part of a 'bandwagon effect' whereby schools make decisions to implement it based on notions of prestige and keeping up with other institutions in the innovation stakes. The term has reached the status of 'brand name' complete with the positive descriptions and associations that this conjures up, 'innovative', 'modern', 'effective', and 'forward-looking' (Dalton-Puffer, 2010: 3). This may indeed raise a school's profile. There is also a misconception that CLIL is relatively simple to implement, requiring only minimal changes to the curriculum and content teachers who are reasonably proficient in speaking the foreign language. Such ill-conceived, poor notions of what CLIL is can have disastrous results for learners and teachers, and all-round embarrassment for school directors. Mehisto (2008) warns of the challenges facing stakeholders in CLIL programmes where changes in practices have not been

thoroughly recognised prior to implementation. These include subject-focused mindsets, lack of central coordination, poor materials development, lack of good public relations management, CLIL stakeholder cooperation, and little or no organisation of research. Such omissions, he states, lead to "disjuncture" which may serve as either a "learning opportunity or invoke defensiveness and rejection" (*Ibid*.: 93). For disjuncture to be beneficial, it requires stakeholders, particularly teachers, to "engage in self-reflection, stepping out of their comfort zones, and exploring the multiple factors that can potentially impact on CLIL" (*Ibid*.: 93). Of the 'counterweights' affecting quality CLIL provision, Mehisto (2008: 98) suggests that it is the integration of content and language that is the most difficult to achieve in the CLIL classroom. This is mainly due to teachers' inability to perceive themselves as both content *and* language teachers, inadequate teaching strategies to cater for content, language, and cognitive processes in the classroom, including meta-cognition and learning to be reflective, which make the overall learning process meaningful and memorable.

7.3. Essentials of implementation

There is no blueprint for CLIL. Its flexibility is what partly explains its success. Where CLIL has sprung up, it presents itself as a unique, innovative means of learning foreign language and subject content simultaneously. The academic subject content is what drives CLIL. Students are driven by the need to learn it. However, for that to be done successfully, certain conditions must be met by schools intending to implement this educational approach. Effective programmes do not work in isolation. Dialogue between communities of practice is essential for the grassroots initiatives to work well and learn from each others' measures and countermeasures (Salaberri, 2010: 153).

A number of authors have put forward recommendations for successful implementation of CLIL programmes. Marsh (2002: 81-83) suggests three broad 'parameters', each with a set of descriptors, which require clarity when putting together a CLIL programme: 1. The Situational Parameter (the institutional environment) which consists of Situational Clarification and an Action Plan. 2. The Operational Parameter (putting the CLIL/EMILE programme into practice). This consists of: The CLIL/EMILE curriculum; the CLIL/EMILE team; the CLIL/EMILE teacher; the CLIL/EMILE classroom. 3. The Outcome Parameter (foresight and future). This consists of the Institutional/workplace feeding systems; networking: local, national, international; and

CLIL/EMILE Programme results. Coyle *et al.* (2010: 14-15) highlight six operating factors which are essential considerations for schools embarking on CLIL. These are: teacher availability; teacher and student target CLIL-language fluency; time available; the ways in which content and language are integrated which will influence whether there is prior or parallel language preparation or embedded preparation in CLIL lessons; out of school or extra-curricular dimensions; and assessment processes.

To add to this, the characteristics of successful programmes as well as specific challenges have been noted. Navés (2009: 10-21) outlines ten characteristics of successful CLIL programmes:

1. Respect and support for the learners' L1 and home culture
   'Knowledge of one language bolsters knowledge of the other'
2. Multilingual and bilingual teachers to better understand students' needs
3. Integrated dual language optional programmes
4. Long-term stable teaching staff
5. Parental involvement
6. Joint effort of all parties involved
7. Teachers' profile and training
8. High expectations and assessment
9. Materials
10. CLIL methodology

These characteristics are compatible with those of Stoller's (2004: 264-265) four factors of successful content-rich primary foreign language programmes: flexibility to respond to unanticipated events; teamwork within stakeholders including support from local universities; leadership; shared commitment to the programme of providing foreign language education to young learners. In addition, she also identifies eight 'challenges' common to many programmes:

1. Identification and development of appropriate content.
2. Selection and sequencing of language items dictated by content sources rather than a predetermined language syllabus.
3. Alignment of content with structures and functions that emerge from the subject matter.
4. Choice of appropriate materials and the decision to use (or not) textbooks.
5. Faculty development that assists language instructors in handling unfamiliar subject matter and content-area instructors in handling language issues.
6. Language- and content-faculty collaboration.
7. Institutionalization of CBI in light of available resources and the needs of faculty and students.

8. Systematic assessment to demonstrate 1) students' language and content learning, and 2) programme effectiveness. (Stoller, 2004: 267-268).

These challenges provide a useful framework for teacher education for CLIL which supports a reciprocal relationship between faculty and school communities.

7.3.1. Stakeholder support

Stakeholders in the form of the school community which includes parents and teaching staff are often what drive CLIL at local grassroots level. Parents in particular, play a key role here, often creating the initial 'movement' for educational change having heard or seen about the benefits of a new innovation in another place. However, some stakeholders may need to be convinced of the advantages of implementing a new educational approach. Scepticism may be rife and convincing parents and some teachers may seem like an insurmountable challenge especially with a lack of published evidence and misconceptions about children missing out on key concepts and language in their mother-tongue, and the need for learners to have a certain competence in the foreign language to be able to cope in CLIL classes. For CLIL to be successful, all stakeholders have to be aware of the seriousness and importance of the undertaking. They need to be thoroughly briefed before programmes begin, and their support nurtured throughout.

7.3.2. Clear objectives and models

Certain prerequisites should be in place before any programme can begin. These include overall objectives within a coherent model which clearly states the vision of the project, the amount of CLIL, which subjects, length of time and exposure, and when and who will be involved. It is said that small amounts of quality exposure are more beneficial than high exposure (Marsh, 2002: 10). CLIL can be as little as 2-3 lessons within a single unit through to more sustained experiences of half a term or more (Coyle *et al.*, 2009: 7). Form, intensity and timing of exposure are important criteria which should be presented to parents who should be given the opportunity to voice their opinions and be reassured of any concerns by teachers with a clear notion and vision of what CLIL comprises in that particular institution. Takala, (2002: 42) suggests a comprehensive strategic approach to implementation which is "tailor-made to the national/local circumstances". Within this approach are a number of essentials: the requisite institutional and professional infrastructure; cooperation between policy makers, educational authorities, the academic community and the teaching profession; learner

involvement as a key element in the actual teaching-learning interaction in schools and classes, and public discussion informed by systematic research (*Ibid.*: 42).

Although CLIL is essentially driven by content, this may by approached in different ways and take different forms which will be determined by other factors. For example, the overall aims may be to raise standards in the foreign language in which case the methodological approach may be language-sensitive/oriented and resemble "language-driven content-based instruction" (Met, 1999: 11). In contrast to this, the focus could be on content and use of the foreign language, an important 'by-product' of this. Wolff (2005: 13) states that CLIL can be represented on a scale from pure language learning at one end to content teaching with no focus on language at the other, and influenced by foreign language teaching and mother-tongue content instruction methodologies respectively.

Lucietto (2008) presents a model of a framework for quality CLIL planning and organisation for the Autonomous Province of Trento which consists of organisational, methodological and institutional (management) factors. The model, claims its author, contributes to "good reflective practice in CLIL" (*Ibid.*: 83). Module organisation and institutional support were mentioned as crucial. The model is divided into three sections: organisation, methodology, and institutional support. Each section consists of a set of subheadings with further descriptors, for example, under the heading 'Methodology' there are a further eight sub-headings. A central feature of the model was an insistence on Teaching Teams made up of content and language teachers working in collaboration at all phases from planning to implementation and assessment. Such teacher roles were considered 'complementary', each teacher offering the expertise from their area. The model also makes use of an external consultant whose main role was to coordinate dialogue between subject specialists. The model insists on CLIL as a non-additional subject but included within the curriculum time of the content subject. This was to reinforce the principle that "a CLIL lesson is a content lesson in a foreign language, not a foreign language content lesson" (*Ibid.*: 87) and ensure greater presence of the content teacher. In terms of methodology, TBL and cooperative learning were advocated with the latter seen as being beneficial for teachers as much as learners. Emphasis was given to assessment which focused on content. The project highlighted the importance of institutional support that acknowledged the complexity of CLIL and

the demands on teachers in terms of planning, materials design, reflection and feedback and suggests additional budgeting for teachers' extra work.

7.3.3. Teachers and collaboration

A key operationalising factor in CLIL programmes is the teachers involved within the CLIL contexts and in teaching CLIL. According to Kiely (2011: 160) "CLIL works where there is commitment, energy, investment of time and a personal sense of professional stimulation and achievement on the part of the CLIL professionals". Such teachers may be content teachers, foreign language teachers, and foreign language assistants. A CLIL teacher may be any of the former two. A content teacher who possesses a good knowledge of and high degree of proficiency in the foreign language may be eligible. Similarly, a foreign language teacher with an in-depth knowledge of the subject content may also be eligible. However, neither could or should contemplate working alone.

Successful CLIL teaching depends on the close collaboration of both content and foreign language teachers. In this way, both would be involved in considering the contribution of their professional expertise and how their practice would need to be adjusted to meet the goals of CLIL in a particular context. This demands a high degree of reflexivity, commitment and responsibility as it requires the teachers to step out of their comfort zones and into an environment of challenge and uncertainty. It requires investment in time and effort, deep reflection on professional competences and learner needs (see Méndez and Pavón (2012) and Pavón *et al.* (2014) for an in-depth analysis on the importance of collaboration in CLIL settings).

CLIL is about breaking down 'territorial barriers' between subjects and establishing fresh new ground. Coonan (2003: 1-2) adds a cautionary note to collaboration in team teaching in CLIL environments. Based on a survey conducted by Pavesi and Zecca, (2001) in high schools in Italy, she concludes that there was a tendency for the subject teacher to present content first in L1 with L2 only being used by the language teacher. She suggests that the reasons might be the already well-established language role each teacher has, and the perceived lesser need for the L1 teacher to use the L2 where the L2 teacher is present and can perform this function. The L2 was also used for language

focus, thus redirecting its purpose as vehicular language for the learning of content to the subject of teaching.

8. Teacher education for CLIL

> Teachers undertaking CLIL will need to be prepared to develop multiple types of expertise: among others, in the content subject; in a language; in best practice in teaching and learning; in the integration of the previous three; and, in the integration of CLIL within an educational institution. (European Framework for CLIL Teacher Education, Marsh *et al.*, 2010: 5).

The quotation above emphasises the fact that CLIL is no easy undertaking for the teachers involved. It has already been mentioned that teachers need to be involved in a thorough (re)examination of their practice, whether foreign language teachers or content teachers, in order to see what contribution that can make to the CLIL classroom. This may give them confidence that there are indeed transferable credits from their subject area knowledge and professional competence to CLIL. That said, they must be prepared to develop their linguistic competences in the foreign language, adapt their methodology and consider new ways of teaching. All of this will require a great deal of introspection in order for teachers to recognise their strengths and limitations. Marsh (2002: 66) suggests that CLIL requires "an inter-disciplinary mindset". This may be difficult to achieve since teachers possess subject mindsets which are often difficult to break down. Mehisto (2008: 104) states that is it unrealistic to expect teachers to be expert in content and language integration and view themselves as CLIL teachers with a unique profile. Perspectives on who CLIL teachers are vary from context to context. Lucietto (2008: 84) highlights the view of language teachers and subject teachers alike in Italy that CLIL is within the domain of modern foreign languages teaching. Ludbrook (2008: 22) suggests that the type of teacher involved in CLIL in European settings is "as diverse as the models of CLIL themselves". The ideal teacher would be someone who has a teaching qualification in the foreign language and the content subject.

The uniqueness of CLIL as an educational approach warrants professional 'education' for successful teaching and learning to take place. CLIL requires significant change in educational systems, mindsets and training programmes (Ioannou-Georgiou 2012: 503). However, like so many innovations, teacher education has not always preceded implementation. Most higher degree courses in teaching focus on one particular subject

or combination of subjects, for example, Biology and Chemistry, Geography and History. It is rare to find teachers qualified to teach a modern foreign language and another subject, for example, Geography and English as a foreign language, though this is a possibility in some European countries, for example, Austria and Germany though these treat both subjects separately (separate pedagogies) and do not include CLIL. Some teaching degrees in primary education may include a compulsory or optional foreign language. However, as CLIL becomes more mainstream, it is essential that teachers receive quality pre- and/or in-service education to equip them with the skills (and reflective ability) necessary for a possible future CLIL teaching assignment.

8.1. CLIL training courses

CLIL has flourished in small localised contexts relying on local stakeholder goodwill and motivation to invest personal time in professional development, or the collaboration within institutions whereby language specialists and content specialists ‘work things out’ between themselves as to the best way to go about CLIL. This *ad hoc* procedure may of course not always lead to the best results. This has led to teacher education programmes springing up where they are needed to support the needs of local teachers. As the scope of CLIL increases, so does demand and provision for more teacher education and quality assurance in it. This can be seen in the steadily growing range of courses now on offer, from short intensive courses offered by universities such as Nottingham and Aberdeen, to reputable ‘training institutions’ such as NILE, International House, and the British Council, as well as those offered as Comenius courses. Interestingly, all of the above are renowned for foreign (English) language teaching and teacher education. The mentioned universities offer CLIL teacher education from their modern foreign language and foreign language teacher education faculties and schools of education.

It is important to critically examine the content of such courses in order to establish possible common foci which may contribute to the perception course developers/teacher educators have of the knowledge base of CLIL teacher education. A survey of short courses reveals that they contain both theoretical knowledge and principles of CLIL as well as the methodological implications of these in classroom practice. It is the latter which form the majority focus of these courses. There is plenty of focus on the methodology of CLIL and developing teachers’ linguistic competence and awareness of

their and learners language needs in the classroom, lesson planning, and designing and producing materials. There is a focus on technical aspects of teaching and little or no mention of organising implementation. Course delivery mode is frequently through workshops. Such courses are for subject teachers and foreign language teachers though participants tend mainly to be the latter. There is a need to reach out to more content teachers (Coonan, 2003: 2).

These courses provide a type of certification of CLIL for teachers. However, teacher certification for teaching CLIL is still not a pre-requisite in many contexts. That said, such courses are empowering the participants on them to become involved in teacher education for CLIL in their local context. Maurichi (2006: 54-58) describes her positive experience of being involved in setting up and conducting a 50 hour CLIL training course to a heterogeneous group of teachers (language and content, from primary to upper secondary school) in Sardinia. This is an example of grass-roots teacher development to respond to a need to implement CLIL in schools and equip teachers with the necessary knowledge and skills with which to do so. Initial objectives included: raising awareness of CLIL in schools; setting up collaborative groups of teachers; planning CLIL modules to implement in schools; and monitoring progress through observation. The course for teachers consisted of examining theoretical principles and practical planning activities. Maurichi reports that the planning stage was the most difficult. From this experience she arrives at a profile of a CLIL teacher who is "ready to manage the complex integration of knowledge in the Third Millennium. It is a reflective teacher who will monitor his/her work analytically and adapt it to the needs of the target class/es accordingly, always being aware of offering an added value to the standard school curriculum" (*Ibid.*: 57).

Some university degrees in teaching also offer modules in CLIL in pre- and in-service courses, and there are now even a few Masters degrees with substantial CLIL coverage. For example, the Stockholm Institute of Education offers a full-time pre-service training course in CLIL worth 15 ECTS. The course has theoretical and practical orientations involving participants in observation of CLIL practice in schools and subsequent report writing. Participants write weekly journal entries about the course and their own learning. They develop teaching materials and lesson plans.

There are eleven countries offering pre-service training for CLIL: Czech Republic, Denmark, Germany, Spain, France, Lithuania, Austria, Poland, Finland, Sweden and English (see Ludbrook, 2008b). In Finland, CLIL has been a part of initial and in-service training since the early 1990s for subject and foreign language teachers (see Marsh *et al*., 1998). The University of Jyväskylä has a large-scale in-service programme working on a modular basis incorporating three broad parameters: The situational parameter; the operational parameter; the outcome parameter (see Marsh (2002: 81-83). CLIL in Finland is a movement supported by subject teachers more than by language teachers.

There are also examples of communities of CLIL practice developing in localised contexts. Sasajima (2013: 60-61) implemented a form of collaborative CLIL teacher development, similar to action-based teaching, among a group of university lecturers at a Japanese university. His cycle of planning, simulating, doing, reflecting, and revising is not unlike that of action research. In his context, Sasajima and his native speaker ELT colleagues developed their knowledge, understanding, and practice of CLIL collaboratively. Their teacher development consisted of workshops about methodology based on their own reading and attending of seminars; materials development; team-teaching; lesson observations; reflective feedback through discussion about lesson observation, materials development, and through interviews and self-reflection reports.

Coyle *et al.* (2010: 161) argue that there have been many attempts to provide teacher education for CLIL but that many of these have only played 'lip-service' to it as an add-on extra and by tending to focus on language teaching techniques. They suggest that teacher education courses for CLIL should cover the following training needs:

1. Are research-led, international and collaborative, to crucially allow for the dynamic global picture to be interpreted at the local level.
2. Are online as well as face-to-face, to enable CLIL teachers to interact and to share ideas and practice.
3. Conceptualise the integration of content and language in a holistic way using principled approaches.
4. Bring together content teachers, language teachers, language support teachers and literacy specialists, at all levels of education.
5. Address the needs of learners in different phases of their education.
6. Encourage participants to become skilled in terms of language competence and content knowledge.

7. Empower teachers to create their own resources and share these using digital repositories.
8. Enable practitioners to work in interactive classrooms where learners and teachers engage in effective discourse and communication for learning.
9. Are both inclusive and holistic in terms of languages and literacies, including the appropriate use of more than one language for learning.
10. Make different aspects of high-quality CLIL experiences more transparent to all those involved. (Coyle *et al.*, 2010: 161).

These authors provide a 'Tool Kit' for CLIL teachers (2010: 74-85) which consists of "Six stages for reflection". Each stage comprises a series of questions to promote reflection on the following: 1. Vision; 2. Context; 3. Unit planning; 4. Preparation; 5. Monitoring and evaluating; 6. Reflection and inquiry. The CLIL unit checklist covers the 4Cs through a series of questions. In addition, there are questions related to activities, supporting learning, assessment, and reflection. They argue for quality assurance in such courses. The authors also suggest paying attention to the affective side, because for most teachers CLIL pushes them out of their comfort zone into a new space which could lead to anxiety and loss of confidence.

Any course, unless tailor-made to a local specified context, will always fall short of providing thorough focus given that the knowledge base of specific disciplines varies considerably. Wolff (2002: 47) states that a teacher who is expected to be involved in CLIL needs a "specific kind of training which goes beyond the training of a foreign language or content subject teacher". International courses can only provide general treatment of the subject-specific knowledge base relying on content teacher participants to apply broad theory to their specific subjects. Of course, this is not a bad thing as there is potential for encouraging reflection, further inquiry and critical application of programme contents. Mehisto (2008: 110) advocates a reflective approach to CLIL teacher education which also "implies the co-construction of knowledge rather than knowledge transmission". This will require a certain degree of reflexivity with teachers examining their own ability to reflect on their understanding of this process. A course which incorporates systematic reflection and operationalises a variety of strategies for this will greatly facilitate the process for teachers and is likely to be more effective.

8.2. Standardising competences for CLIL: Towards a CLIL teacher profile

There have been a few attempts to develop a standard profile for a CLIL teacher. Marsh (2002: 79-80) provides a list of "idealised competences" required of a CLIL teacher

who would teach cognitively demanding subjects extensively through the target language. This list consists of seven areas: language/communication; theory (related to language learning and acquisition); methodology (related to the identification of linguistic difficulties, interferences, and strategies for correction and modeling language as well as developing communication); the learning environment; materials development; interdisciplinary approaches; and assessment. Many of these competences relate to language. An interesting comparison can be made with Met's (1999: 16-17) suggested preparation for teachers on content-based programmes consisting of: content knowledge; content pedagogy; understanding of language acquisition; language pedagogy; knowledge of materials development and selection; understanding of student assessment. Here there is a balance of content and language preparation.

An attempt to standardise competences needed for teaching in CLIL contexts is provided by 'The CLIL Teacher's Competences Grid' (Bertaux *et al*., 2009). It consists of two sections: 1) underpinning CLIL; 2) setting CLIL in motion, each with macro- and micro-competences with accompanying descriptors of skills for each of the micro-competences. The section on 'underpinning CLIL' focuses on skills needed for setting up CLIL, designing programme parameters, policy, course development and partnerships in supporting learning with other stakeholders, as well as language competence for teaching. The section on 'setting CLIL in motion' focuses on skills for implementing CLIL in practice, for example: underlying principles of SLA, lesson planning, the learning environment, assessment. The grid is extensive and is intended to be used as a framework in the design of pre-service or professional development courses for teachers.

'The Planning and Observation Checklist' adapted by Mehisto *et al.* (2008: 232-237) from the Immersion Teaching Strategies Observation Checklist by Tara Fortune (Centre for Advanced Research on Language Acquisition at the University of Minnesota) consists of seven categories and their descriptors which identify key pedagogical goals in CLIL settings. The checklist consists of four columns: category labels with descriptors; indicators (observable features of goals achievement); a key to indicate if observed or not; and comments. Category labels are: integrate content and language; create a rich L2 learning environment; make input comprehensible; use 'teacher-talk' effectively; promote extended student output; attend to diverse learner needs; attend to

continuous growth and improvement in accuracy. This accounts for both planning and teaching in CLIL lessons. This checklist could be used by teachers to reflect, pre-lesson, as a guide to their planning, and post-CLIL lesson, to aid reflection on practice.

There have been attempts at standardising teacher education for CLIL through courses such as the 'Cambridge Teaching Knowledge Test Course for CLIL' (Bentley, 2010) after which an exam, the 'Teaching Knowledge Test for CLIL' can be done. Entry requirements for this course are a minimum of B1 and no previous teaching experience although it is mentioned that participants will normally have had some experience of teaching English to speakers of other languages or qualifications ('Teaching Knowledge Test Handbook for Teachers' p.3-4). This course is divided in two parts. Part 1 consists of five units about the knowledge and principles of CLIL. Part 2 consists of twelve units about lesson preparation, lesson delivery and assessment. Each unit in the coursebook follows the same format: learning outcomes; a brief introduction to the main focus of the unit, an outline of key concepts, a follow-up activity, a reflection section, discovery activities, and exam practice.

8.3. European support for CLIL teacher education

European supra-national institutions have actively been supporting teacher education for CLIL. European funded projects have resulted in broad frameworks as well as modules and materials for teacher education courses. Leading the way was the 'TIE-CLIL project'[17] (Translanguage in Europe), a European Cooperation Project Lingua A, 1998-2001'. Among the outcomes of this project were a CDRom containing five training modules on: 1. Main features of CLIL – methodologies and teacher profiles; 2. Second language acquisition for CLIL; 3. Practical aspects of teaching CLIL; 4. Language awareness in bilingual teaching; 5. CLIL for the learner. These modules offer in-depth comprehensive coverage of the theoretical background and principles of CLIL and implications of this for practice.

The European Centre for Modern Languages (ECML)[18] has been actively supporting CLIL since 1995 under the guise of bilingual education and languages across the

[17] TIE CLIL available from: http://www.tieclil.org/index.htm

[18] ECML The European Centre for Modern Languages is a Council of Europe institution

curriculum. From 2004 – 2007 it gave its backing to the CLIL Matrix[19] which was an internet tool designed to test whether teachers were 'professionally ready' to teach CLIL. The tool consists of sixteen core indicators organised into a 4 by 4 square matrix with a horizontal axis of four theoretical components (content, language, integration, and learning) and a vertical axis of four of practice (culture, communication, cognition, and community). Each square on the matrix is an example of the convergence of theory and practice. It can be used by experienced CLIL teachers to validate their work and by less experienced teachers as a developmental tool (Marsh and Frigols, 2007: 36).

'The European Framework for CLIL Teacher Education' (Marsh *et al.*, 2010) borne out of an ECML project is a broad conceptual framework which provides principles and ideas for "professional development curricula" and aims to "serve as a tool for reflection" (*Ibid.*: 3). It was derived after an analysis of CLIL teacher education courses developed by universities and other institutions and a perceived gap in such courses regarding pedagogical competences. Such courses focused on content to be studied rather than skills and expertise to be gained (see Wolff, 2012: 105-116 for a rationale for the framework). The framework consists of macro-level universal competences incorporated into a curriculum for teacher education which can be implemented across contexts. It lists target professional competences under eight headings that the CLIL teacher should acquire during a training programme. These are: 1. Personal reflection as "commitment to one's own cognitive, social and affective development is fundamental to being able to support the cognitive, social and affective development of students" (Marsh *et al.*, 2010: 17); 2. CLIL Fundamentals (understanding of the core features of CLIL and how they link with best practices in education, and inclusive and constructive stakeholder relationships); 3. Content and Language Awareness (and the reciprocal relationship between the two); 4. Methodology and Assessment (aspects of good pedagogy applied in a different manner in CLIL and require enhanced scaffolding); 5. Research and Evaluation (a dynamic CLIL teacher is a learner who follows a personal path of enquiry, reflection, and evaluation); 6. Learning resources and environments; 7. Classroom management; 8. CLIL Management (with all stakeholders). These competences can be realised through three key modules which the framework outlines

[19] CLIL Matrix available from: http://archive.ecml.at/mtp2/clilmatrix/index.htm

with a list of content for each module's main components. The modules and their main components are: 1. Approaching CLIL: situating CLIL; adopting action research; examining good pedagogy and CLIL; focusing on CLIL in the school context. 2. Implementing CLIL: designing CLIL classroom curricula; anchoring CLIL in the classroom; interweaving psychological and pedagogical aspects in the CLIL classroom; accessing and adapting CLIL learning resources and environments; becoming an evidence-based practitioner. 3. Consolidating CLIL: assessing for learning; networking locally, nationally and internationally; and practising CLIL.

'Teacher Education for CLIL across Contexts: From Scaffolding Framework to Teacher Portfolio for Content and Language Integrated Learning' (Hansen-Pauly *et al*., 2009) is the outcome of a European Commission funded Socrates-Comenius project involving six countries and nine institutions involved in teacher education at secondary level. Drawing on observations of CLIL in various contexts and literature underpinning the principles of CLIL, it offers those involved in or contemplating setting up a teacher education programme for CLIL, a conceptual framework for organising teacher reflection around eight areas of competence: context and culture, learner needs, planning, multimodality, interaction, subject literacies, evaluation, cooperation and reflection. For each of these areas of competence, knowledge, values, skills, activities, and outcomes are examined and presented with corresponding descriptors. These constitute the basis of a portfolio of what CLIL teachers need to know (knowledge), to appreciate (values), to be able to do (skills), to demonstrate all of these (activities) and provide evidence of their learning (outcomes).

There are a number of organisations offering expert information about CLIL. These include UNICOM[20] at the University of Jyväskylä, which also incorporates the European Platform for Dutch Education, The CLIL Cascade Network (CCN), The CLIL Consortium, coordinated by UNICOM, EuroCLIC - The European Network for Content and Language Integrated Classrooms, as well as an increasing number of other websites and online communities of practice. There have also been a number of major

[20] UNICOM is the Continuing Education Centre of the University of Jyväskylä, Finland.
CLIL Cascade Network available from: http://www.ccn-clil.eu/index.php?name=Content&nodeIDX=3488

international conferences on CLIL since the mid 1990s. It is clear that there is great interest (and curiosity) surrounding CLIL given the considerable and prolific activity it has generated. However, one area which needs to make a more significant contribution is that of research. There is a need for more research into CLIL and more communities of practice which enable teachers to share their work, develop theories of practice and understand them *in situ* and across communities (see Coyle, 2007 for the beginning of a debate about this need).

9. Research in CLIL

As CLIL has evolved and gathered pace over the last two decades, so has criticism of it. This criticism is levelled mainly at its lack of a strong evidence base and large-scale research projects. This criticism is, however, justified and welcomed, for it only goes to emphasise how seriously CLIL is taken and the commitment of those involved in establishing it as a legitimate approach complete with the necessary credentials. An understanding of CLIL must be weighted against evidence from research. Unfortunately as yet, there remains a dearth of large scale research projects into CLIL. This is because practice has largely preceded theory. Much evidence so far is anecdotal with reports of implementation in localised contexts or from small-scale research projects yielding mainly qualitative data, which, while interesting, cannot be generalised. Generalisation is a major issue with developing a research base in CLIL given its diverse range and scope of models across many different contexts presenting a vast number of variables and making comparisons and establishing outcomes to CLIL practice very difficult (Coyle *et al*., 2010: 165; Bonnet, 2012: 66). In addition, as CLIL fuses the fields of language teaching/learning and content teaching/learning this affords many different perspectives which require “multi-faceted research approaches” (Marsh, 2013: 19).

At this present time, CLIL has reached a crossroads. For it to move on and gain credibility as an educational approach, it needs a more rigorous evidence base of which early pioneers are all too aware (see Coyle, 2013: 248-249). Recent calls for this have been loud and clear, and fiercely critical (see Pérez-Cañado, 2012; Bonnet, 2012; Cenoz *et al*., 2017) and have detailed misconceptions and ambiguities, identified gaps in CLIL definitions and goals, as well as flaws in research. Bonnet’s bold claim (2012: 66) strongly reverberates the “naivety” with which CLIL has been accepted, and the “hope” that it inspires:

> [T]he powerful metaphors of ‘two for the price of one’ and the ‘added value of CLIL’ seem to have become accepted truths in the general CLIL discourse rather than hypotheses to be tested through evidence-based research. Still, they create a powerful atmosphere of optimism and almost limitless belief in the potential of CLIL.

Dalton-Puffer (2011: 186) states that most research is related to language outcomes of learners in CLIL which is not surprising given its role in languages education. She reports that studies into content learning are less conclusive as few countries conduct standardised tests in these areas. In a comprehensive critical review of CLIL research in Europe, Pérez-Cañado (2012: 330-332) calls for more thorough, extensive research into CLIL with more rigorous methods. This, she believes, is the only way to guarantee more “success-prone implementation” (*Ibid*.: 32).

Although research into CLIL is burgeoning, there is still a dearth of publications related to teacher perspectives and beliefs about teaching CLIL. Teachers’ reflections in CLIL contexts is an area cited by Ruiz de Zarobe (2013: 238) as “insufficiently addressed”. Hüttner *et al.* (2013: 269) state that “without addressing teachers’ pre-existing beliefs, changes cannot successfully be implemented in teacher attitudes or behaviour”. This in turn will have a significant effect on the attitudes of other stakeholders when policy statements are eventually drawn up.

It will be interesting to see whether any future analysis of teacher education courses for CLIL reveals features similar to a twenty-first century second language teacher education, or falls more in line with that which preceded it. If so, is there a ‘natural’ order to teacher education development? Must there be a number of years’ trial before teachers’ perspectives are taken into account? After all, it took second language teacher education a few decades to arrive at its current stance of accepting teacher beliefs and personal theories as important contributions to teacher education.

Summary

This chapter has examined CLIL as an educational phenomenon and surfaced complexity surrounding what it is, how it can be interpreted, what has influenced it, and the principles and theories of learning from which it draws. The fusing of subject

knowledge bases brought about by the integration of content and language in the learning process makes CLIL a unique educational approach with its own didactics. The 4Cs of CLIL, content, communication, cognition and culture, present educators with a conceptual framework for curricula and methodology which requires reorganisation and adaptation of existing practices in schools and a commitment to collaboration from all stakeholders, learners, teachers, parents and school directors. The change in educational approach demands teacher education which addresses the core features of CLIL, methodology and implementation. If teachers and school communities are prepared, then demands and challenges which accompany change will also bring benefits within the classroom and beyond, and school communities will be able to appreciate the 'added value' of CLIL.

This chapter has answered the question posed at the beginning, 'What do teachers and teacher educators need to know about CLIL?', and has also surfaced others: 'What actually happens in practice when teachers are experimenting with this educational approach?'; 'What are teachers' perspectives when they engage in CLIL?'. Teacher perspectives is an area considered lacking in the research base of CLIL. In order for teachers to surface their perspectives they must be engaged in reflective practices. What this is, and how it may be brought about in teacher education, is the focus of the next chapter of this thesis.

Chapter 3

Conceptualisations of reflection and reflective practice in foreign language teacher education

Introduction

So far in this thesis a type of foreign language teacher education for this century has been identified. This is one which is inquiry-oriented, reflective, and embraces change. Content and Language Integrated Learning (CLIL) has been identified as an educational approach which has the potential to drive change in foreign language teaching and teacher education. However, change will not happen unless it is preceded and accompanied by reflection. Chapter 3 addresses this complex subject. It begins by examining what 'reflection' and 'reflective practice' are before arriving at a conceptualisation of principles and practice which fits the English language teacher education programme at FLUP. Included in this is the notion of the teacher as reflective practitioner with an exploration of what forms the substance of teachers' reflections. This is discussed in terms of two dimensions of reflection – content and type, and how these may be evidenced. The ways in which reflective practice may be operationalised within teacher education programmes are presented through models, tools and strategies for stimulating reflective practices. The chapter ends with a description of the model of reflective practice used in the English language teacher education programme at FLUP and examines how CLIL may be incorporated within it.

1. Definitions and principles of reflection and reflective practice

Edge's (2011: 25) claim that "Reflection and reflective practice have become the watchwords of late twentieth and early twenty-first century professional life" would appear to be true given the abundance of the terms, yet clear definitions associated with teacher education are surprisingly elusive. Much of the literature on reflection points to the difficulty in defining what is meant by the term itself (Hatton and Smith, 1995: 33 Gimenez, 1999: 130; Jay and Johnson, 2002: 73). Notions of reflection and reflective practice are not only complex, but vague and ambiguous (Zeichner and Liston, 1996: 7). Moon (1999: vii-ix) highlights the difficulty in establishing a coherent definition given its varied use within and across a wide range of disciplines and contexts, topics within the area of reflection, and the vocabulary to discuss it which is either "overtly extensive or not extensive enough". Griffiths (2000: 539) goes a stage further by ironically suggesting that the frequency and complacency with which the term is used has meant that it is applied "uncritically and unreflectively". This is particularly the case with teacher education programmes, many of which make elevated 'seductive' claims to use,

teach or foster reflective practices, such is the appeal of the terminology (Loughran, 2002: 33). Burton (2009: 298) states that reflective practice has become a "slogan" despite the fact that within such programmes there is confusion as to what is meant by reflective practices as the term is used to describe a range of activities associated with teaching. She also acknowledges a further difficulty in defining the term, which is the cognitive nature of reflection. Jay and Johnson (2002: 73) caution that attempts to clarify reflection may remove from it its true essence because "in its complexity lies its worth".

It is to Dewey's seminal work, 'How We Think' (1933) that many revert for elucidation of the term or to be reminded of how it *should* be applied. Of "Reflective thought defined", Dewey (1933: 6) declares that:

> *Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends,* constitutes reflective thought.

Inherent in Dewey's (1933: 8-13) formula are a number of key characteristics of the nature of reflection. One is that reflection is a conscious act of thinking about something to which we have already attached value or significance. What prompts this activity may be a new experience or a puzzling thing which one ponders and evaluates against a backdrop of previous experiences. Continuous deliberation may reveal new insights which challenge initial affirmations and bring about different perspectives and meanings. For Dewey, central to reflective thought is 'belief', the challenge to the grounds on which that belief is held and the consequences that result which inevitably involve action of some sort. Beliefs which are accepted without consideration or challenge do not involve reflective thought. They involve thinking which is "uncritical" (*Ibid.*: 13). Dewey claimed that reflective thought demanded a certain frame of mind which could be trained. He believed that reflection consisted of a process of five logically distinct steps: "(i) a felt difficulty; (ii) its location and definition; (iii) suggestion of possible solution; (iv) development by reasoning of the bearings of the suggestion; (v) further observation and experiment leading to its acceptance or rejection; that is, the conclusion of belief or disbelief" (Dewey (1933: 72). It is a trained mind that is able to judge the relevance and extent of each of these steps. There is a

"double movement" in all reflection from the difficulty to proposed solution and back to the difficulty and so on, as a different picture emerges bringing about new meaning (*Ibid.*: 79).

Whilst Dewey's work foregrounded the principles and processes of reflective thought and action, Schön's (1983) strengthened the notion of the professional's active theorising of their practice through reflection. For Schön, this activity takes place in two distinct time frames, during and after the act of teaching, "reflection in" and "reflection on" action. Both reflection in and reflection on action involve different applications of theory and teacher knowledge. In the former, the teacher is engaged in a constant process of decision-making involving the application of theory to practice. It involves the rapid interactive decision-making and judgements based on knowledge and experience of what works or should work. The almost instinctive manner in which this is done reveals what Schön calls "knowing-in-action" and is evidence of the artistry of the professional's expertise. Knowing-in-action is intuitive and tacit, and is derived from a constant re-shaping of practice brought about by the experience of teaching and is thus distinct from blind application of the technical attributes of teaching. It is the knowing art of the professional over which they alone have ownership beyond academic control. It is not only an application of theory, but a moulding or a surrendering of it to suit contextual needs since these are unique instances over which there can only ever be limited prior preparation. This is what allows action to continue as it is not paralysed by a separation from thought. Where such instances yield surprise, knowing-in-action accommodates through reflection-in-action which may bring about a new perspective. Further exploration brings about new meaning and development of professional repertoire. However, he cautions that if repetitive, routine practice is not reflected upon it may lead to the nuances of practice being ignored as they become embedded tacit knowledge which may not be surfaced. They are missed opportunities to reflect about practice (see Schön, 1983: 21-69).

Reflection on practice is the conscious thinking about the teaching act once it has ended and the lesson is over. It is reflection at a distance. Here the teacher may theorise his/her actions by applying learned or espoused theories, or articulate their own. S/he may further problematise his/her teaching, question tacit knowledge and consider other ways of shedding light on practice in preparation for future action. Schön (1983: 132) states

that this involves spirals of "appreciation, action and re-appreciation". Reflection on action affords the teacher the opportunity to think further about their practice away from the firing line. In the heat of action, lengthy mulling over it may interfere with it by surfacing issues which lead to further complexity and possible paralysis. This is why both reflection *in* and *on* action are essential components of reflective practice. Taken together, they are illustrative of what Schön means by an "epistemology of practice" (1983: viii).

Between them, Dewey and Schön encapsulated defining issues in the reflective practice of teachers. Much of the work about reflection and reflective practice has been influenced by them. Edge (2011: 17) acknowledges the importance of this contribution to teacher education:

> [R]eflective practice has provided an approach to the development of professional praxis that allows us to explore the experience of craft learning and intellectual learning in mutually interpenetrative ways. It has also provided us with key concepts that have helped shift the understanding of teaching from being seen as a series of behaviours only, to being seen as a complex, multiply-influenced and motivated activity in which awareness and routine both play important roles. It has encouraged us to believe that while routine is important, awareness can help us shape the routines on which we are content to rely and also allow us to develop the innovations that will keep us engaged and alert.

Edge's words are particularly relevant to this study where a new educational approach (CLIL) is introduced into an already coherent and routinised programme as a stimulus for further reflection on existing practices with the potential to change them. Further contributions from other authors have accumulated a rich literature on reflection which have either teased out or added to its complexity. Boud *et al.* (1985: 11) identify three main ideas about reflection: that it is controlled by the individual, "only they themselves can reflect on their own experiences and reveal what they want about this"; it is "pursued with intent"; the process of reflection is complex where "both feelings and cognition are closely interrelated and interactive". Zeichner and Liston (1996: 7) state that the problem with the term 'reflective teaching' has to do with "the vagueness and ambiguity of the term, and with a misunderstanding of what is entailed in reflective teaching". It is not a question of any thought about teaching or any systematic action that constitutes reflective teaching. It is conscious, deliberate thought and action which

make it different from routine behaviours (Bartlett, 1990: 203). It is this type of thought which has the potential for bringing about change. And for this to happen, teachers need to be aware of the role of reflection and the processes which bring it about (Boud *et al.* (1985: 19). Such processes may be solitary and personal as well as collaborative. Kemmis (1985: 141) states that this is "dialectical" involving constant oscillation between inward-looking and outward-looking thought processes which lead to action and further reflection. Bailey *et al.* (2001: 45) highlight the paradox in the definitions of reflective teaching, "Reflection consists largely of affective and cognitive processes practiced by individuals. Yet, such reflection, at least as part of reflective teaching, operates within and is about social processes: teaching and learning". Zeichner and Liston (1996: 38) state the importance of teachers articulating their "practical theories" which offer a unique "insider perspective" and contribution to educational knowledge.
This is further elaborated by Moon (1999: 100) who suggests that reflection consists of inputs and outcomes as well as the state of or "capacity to be reflective". Inputs are usually "theories, constructed knowledge or feelings". Outcomes or purposes may consist of a range of things such as:

- learning and the material for further reflection;
- action or other representation of learning;
- reflection on the process of learning; critical review;
- the building of theory; self-development;
- decisions or resolutions of uncertainty;
- empowerment and emancipation;
- other outcomes that are unexpected - images or ideas that might be solutions. (Moon, 1999: 100).

She suggests that the complexity of reflection is due to the inclusion of outcomes or purposes into a general interpretation of process. A simpler view is offered by considering reflection as a process in itself and anything else as additional to this (*Ibid.*: 100).

The process inherent in reflection is variously interpreted as linear or cyclical. Burton (2009: 300) suggests a sequence that consists of the following: "Noticing a concern; clarification or expression of the concern in some form; response to the concern; explicit relation of the expressed concern or other experiences or input; collecting other responses or information; processing the response as a whole; acting on the insights

gained". However, a linear interpretation of this would suggest that there is an end point to reflection and ignore the notion of reflection as a continual process. Larrivee (2000: 304-306) presents a cycle which consists of phases which oscillate between an examination of current practice and a desire to change, to an inner struggle with what is secure and familiar with the uncertainty and fear of change. If the fear is too overpowering, then there is a reversion to the stability of current practice. Moving towards change requires a surrendering of this stability and uncertainty to take hold. A confrontation with uncertainty may bring about personal discovery, new perspectives and ultimately transformation. It is only through this highly tense process that new understandings, new ways of doing things become accessible.

Bartlett (1990: 208) proposes a cycle of reflective activity which consists of "mapping, informing, contesting, appraising and acting". Mapping emphasises the documenting of routine, conscious actions, critical incidents, experiences of teaching, beliefs, and influences on teaching. Informing involves re-visiting the maps and making sense of them. This may be done individually or in discussion with others as a way of the teacher identifying and understanding herself/himself within a community of practice which extends beyond the school to the wider society. The focus in this phase is on searching for principles behind actions. It is a form of theorising practice. Contesting involves the teachers in questioning their assumptions about teaching which have previously never been queried. Here the teacher addresses inconsistencies and contradictions between their convictions about teaching (theories) and that which confounds them in practice. This may include the teacher's preference for a particular strategy, for example, even though this may not benefit the students. Contradictions also extend to institutional requirements and the discrepancy between genuine and perceived needs. Appraising is when the teacher considers other means for achieving teaching goals in light of their new understandings. Bartlett (1990: 213) states that 'acting' is not the final phase, but that there is "a continuing dialectical relationship among the preceding phases and the idea of acting out new ideas in our teaching".

One of the most comprehensive and concise definitions of reflection is that of Jay and Johnson (2002: 76) which they used with students on a teacher education programme. Implicit within their definition is a continual process indicative of career-oriented lifelong learning:

> Reflection is a process, both individual and collaborative, involving experience and uncertainty. It is comprised of identifying questions and key elements of a matter that has emerged as significant, then taking one's thoughts into dialogue with oneself and with others. One evaluates insights gained from that process with reference to: (1) additional perspectives, (2) one's own values, experiences, and beliefs, and (3) the larger context within which the questions are raised. Through reflection, one reaches newfound clarity, on which one bases changes in action or disposition. New questions naturally arise, and the process spirals onward. (Jay and Johnson, 2002: 76).

As the process of reflection continues to spiral, so do reasons for engaging teachers in reflective practices. Roberts (1998) highlights a number of purposes of reflection which are related to a particular theoretical stance on teacher education. Purposes are: "to raise awareness of personal images of teaching" (socio-constructivist); "to raise awareness of one's personal theories, values and beliefs" (constructivist); "to reflect on one's own language learning style" (constructivist); "to raise awareness of one's current performance as a learner" (constructivist); "to develop ability to analyse teaching situations" (constructivism and observational learning); "to recall and analyse new and recent learning experiences" (constructivism and experiential learning); "to review and assess your own actions in class" (self-evaluation of personal experiences); "to raise awareness of one's routines and their rationale" (uncovering personal thinking); "to test the consistency between classroom events and educational theories" (experiential learning and social constructivism); "to become able to reframe interpretations of one's practice" (constructivist); "to become aware of the social and political significance of one's work" (critical theory: the impact of social forces on one's work) (see Roberts, 1998: 54-60). The theoretical stances underlying the purposes of reflection outlined above are all consistent with the attributes of the new knowledge base of second language teacher education which places the teacher in the pivotal position of realising and creating theories of practice.

Some scholars (Zeichner and Liston, 1996; Kemmis, 1985; Vieira, 2010) have seen the potential of reflective practice to bring about reform in educational contexts which take the consequences of it beyond the individual to social and political arenas. Teachers are instrumental in bringing about such reform. Vieira (2010: 151) describes a space between the real and the ideal as the potential for possible change. It is through teacher

education which incorporates reflective practice that this potential may be realised. Bartlett (1990: 205) explains that part of the process of becoming critical involves moving beyond the technicalities of teaching, "from the 'how to' questions, which have a limited utilitarian value, to the 'what' and 'why' questions which regard instructional and managerial techniques not as ends in themselves but as part of broader educational purposes". This affords teachers more autonomy, responsibility and the opportunity to ultimately exercise more control over their teaching where "we are both the producers and creators of our own history. In practical terms this means we shall engage in systematic and social forms of inquiry that examine the origin and consequences of everyday teaching so that we come to see the factors that impede change and thus improvement" (*Ibid.*: 205).

In much the same vein, Kemmis (1985: 149) states five propositions, quoted below, about the nature of reflection:

1. Reflection is not biologically or psychologically determined, nor is it 'pure thought'; it expresses an orientation to action and concerns the relationship between thought and action in the real historical situations in which we find ourselves.
2. Reflection is not the individualistic working of the mind as either mechanism or speculation; it presumes and prefigures social relationships.
3. Reflection is not value-free or value-neutral; it expresses and serves particular human, social, cultural and political interests.
4. Reflection is not indifferent or passive about the social order, nor does it merely extend agreed social values; it actively reproduces or transforms the ideological practices which are at the basis of the social order.
5. Reflection is not a mechanical process, nor is it a purely creative exercise in the construction of new ideas; it is a practice which expresses our power to reconstitute social life by the way we participate in communication, decision-making and social action.

The points above, which relate to educational reform, are key to understanding the relationship between reflection and change as brought about by internal and external forces operating within and beyond local contexts. Such is the case for change presented in this thesis which acknowledges the global drivers in foreign language teaching and the potential of CLIL to activate further cycles of reflection and change in teaching and teacher education practices. At this point in this chapter it is possible to summarise a set of principles of reflection and reflective practices which relate to this study. These are, that reflection:

- Involves examination of beliefs, values, assumptions, experiences, competences (Zeichner and Liston, 1996; Richards and Lockhart, 1996; Cruickshank, 1987);
- Involves articulating/making explicit our thoughts about our practice (Schön, 1983. Professional knowledge. Knowing in action);
- Allows 'theories' to be re-evaluated and understood in a new light; (Dewey, 1933. Reflective action – modified action; Schön, 1983. Appreciation, action, re-appreciation);
- Is action-oriented (Kemmis, 1985);
- Is transformative - of self, and beyond self (personal, social, political development and change) (Kemmis, 1985; Zeichner and Liston, 1996; Bartlett, 1990).

It is also possible to articulate a definition of a type of teacher or teacher mindset that engaging in reflection and reflective practices brings about. Dewey (1933) declared that such a state required 'mindfulness', 'wholeheartedness', and 'responsibility'. Nunan and Lamb (1996: 120) state that "Reflective teachers are ones who are capable of monitoring, critiquing and defending their actions in planning, implementing and evaluating language programs". Zeichner and Liston, (1996: 6) state that a reflective teacher:

- examines, frames, and attempts to solve the dilemmas of classroom practice;
- is aware of and questions the assumptions and values he or she brings to teaching;
- is attentive to the institutional and cultural contexts in which he or she teaches;
- takes part in curriculum development and is involved in school efforts; and
- takes responsibility for his or her own professional development.

These views are compatible with the principles of reflective practice outlined above. It is hoped that through constant development of the teacher education programme at FLUP to provide for reflection on different educational approaches that student-teachers will begin their process of becoming reflective practitioners.

2. Dimensions of reflection

In order to better understand the complexity of reflection and reflective practices in teacher education programmes, it is necessary to examine how this has been

conceptualised and the criteria which have been used to provide evidence of it. A number of studies attempting to capture this complexity have been carried out in pre- and in-service teacher education contexts. These studies have focused on two main dimensions of reflection, namely content and types of reflection (also referred to as 'levels' or 'quality' of reflection). In some cases rubrics have been designed as tools for analysis of these dimensions (see Appendix 2 for a list of studies on these dimensions and subsequent conceptual frameworks for reflection).

An awareness of both dimensions of reflection is vital in teacher education programmes which aim to develop and nurture reflective practices. Noffke and Brennan (1988: 5-6) suggest that a distinction between possible foci for reflection is important so that teachers can be more explicit as to on what and how they are reflecting, and what they can, should and need to think about. This is a starting point for constructing effective programmes of reflective practice which guide and support it, especially when these incorporate new foci or educational approaches where reflection may contribute to the knowledge base of teacher education.

2.1. Content - what teachers reflect on

Studies relating to the content of teachers' reflections fall into two categories, those which allow teachers more or less free reign to write or discuss topics of their choice, and others which direct teachers towards specific topics on which to reflect. The first type leads to analysis of emergent, inductive themes; the second begins by establishing deductive criteria for analysis which may include further aims related to types of reflection about this specified content. If this is done within a teacher education programme, the study may be influenced by the aims, purposes and content of this programme within which certain procedures exist, for example a practicum where there may be designated times and foci for reflection such as in pre- or post-lesson discussions. In addition, such programmes may well carry with them social, moral or political influences related to views of the potential of reflective practices.

Frequently cited in the literature about reflective practice is the work of Van Manen (1977) and his three-level framework for reflection. The three levels represent a hierarchy/continuum of reflection which consists of the following: 1. Technical rationality; 2. Practical application/contextual; 3. Critical reflection/dialectical. It could

be argued that Van Manen's framework has a dual-focus on content as well as well as on types of reflection because inherent within the descriptions of characteristics of each level are the foci and types of reflection (see LaBoskey, 1993: 26; Valli, 1992). However, Van Manen intended them to be “distinct ways of knowing and of being practical” (1977: 205) in which there is an inherent process (see Valli, 1992: 214; Noffke and Brennan, 1988: 6). This is most evident in his interpretation of technical rationality which is synonymous with a focus on the procedures and routine side of teaching according to pre-determined goals, and where there is virtually automatic acceptance of these goals. Practical application/contextual is, by nature of its label, synonymous with analysis and justification of the practice of teaching and its outcomes within the confines of specific contexts. Critical reflection/dialectical assumes a different positioning of the teacher and teaching on the grounds of social, moral and political concerns calling for a more holistic stance based on experience brought about by objective questioning, and interpretation and evaluation of the purpose and worth of teaching. Viewed as a hierarchy or continuum, the framework maps a developmental sequence of behaviours and attitudes in the gaining of knowledge and wisdom of teaching through experience.

It is easy to see why Van Manen's framework has become influential to other studies and resonates so much within teacher education since it covers much of the ground, content and attitudes of a teacher education which embraces reflection. It conceptualises teachers' growth from administrators of curriculum to being instrumental in its development. However, the framework has come under criticism for its hierarchical stance which LaBoskey (1993: 26) suggests “devalues the practical” and “overlooks many of teaching's more complex and comprehensive concerns in relation to instruction and curriculum”. Valli (1982: 214) cautions at interpreting Van Manen's levels as distinct levels of reflection warning that “treated in isolation, they seriously distort understanding and limit ways of being practical”. Noffke and Brennan (1988: 7) suggest that “[t]here is an implicit elitism that not only names the 'practical' of most teachers as lowly and less significant, but also offers no guidance as to how to raise their level of reflectivity”. They argue further that the “technical” side of teaching is essential:

> 'Technical' skills, those of creating experiences for children that are both meaningful and satisfying, are not merely valuable, they are essential to getting things done. Whatever system evolves for understanding teachers' reflections, it must not, explicitly or implicitly, denigrate those skills. Rather, it should build from these, allowing for a more 'connected' critique, one that leads from practice, through critical reflection, but always back to practice in a continuing dialectic. One must know how to, not just what and why. (Noffke and Brennan (1988: 9).

Noffke and Brennan (1988: 22-26) put forward a model of dimensions of reflection and accompanying suggestions for reflective inquiry. Their model, depicted as a multi-dimensional figure, like a cube, consists of "planes" or "fields" represented as sides of the cube which are non-hierarchical. The dimensions depict "the terrain of educational reality and therefore, its discourse" (*Ibid.*: 22) and are: the "sensory dimension", "ideals", "historical-comparative", and "determinants". The first of these, the sensory dimension, consists of participants in the social world, their material reality and their actions all of which can be observed. Reflective inquiry includes examination of artefacts, observation, interview, self-critique and dialogue. The dimension of 'ideals' emphasises moral thinking or ethical principles and an examination of the assumptions behind the roles and actions of the 'participants' in the sensory dimension which "expose the 'socially constructed' nature of reality and reveal relationships to the economic, cultural, and political structures of society as they interact along the dynamics of class, gender and race" (*Ibid.:* 24). The 'historical-comparative' dimension involves reflective inquiry based on understanding how educational practices came about in the local, national, international or personal sense through examining underlying beliefs behind practices. The dimension of 'determinants' represents cultural, political and economic structures "as they intersect with class, gender, and race" (*Ibid.:* 24). Reflective inquiry here could involve analysis of textbooks and curriculum development. There is no intention for the model to encourage any hierarchical proportioning. All dimensions are linked together and serve one another in some way. The authors state that the goal of those involved in education should be "understanding and action in relation to all dimensions" and that this can be achieved through reflection which draws attention to the dimensions when in dialogue with others (Noffke and Brennan (1988: 25).

In a study of seven teacher education programmes in the U.S, Valli (1993: 13) used Tom's (1985) "arenas of the problematic" to analyse the reflective content of teacher

education programmes. These arenas are not dissimilar to the dimensions of Noffke and Brennan mentioned above, and move from 'small to large': “the teaching-learning process, subject matter knowledge, political and ethical principles underlying teaching, educational institutions and their broad social context” (*Ibid*.: 13). Valli states that the teaching-learning process is the focus of most reflection. Within this area are a number of specific foci: “instruction, instructional design, individual differences, group processes and dynamics, research on teaching, learning, motivation, effective teaching behaviours, discipline and classroom organisation” (*Ibid*.: 14). However, programmes do not deal with these foci in isolation, but rather link them to broader areas, thus removing any overly technical orientations. Another theme that emerged from Valli’s study which did not fall into the other arenas was “self as teacher” or “reflection for self-enlightenment”. This is suggestive of conscious teacher development. Valli mentions that here official research is “de-emphasised” in favour of personal knowledge used “to transform or reconstruct experience” (*Ibid*.: 15).

Some studies have focused on the content of reflection when these have been directed to specific foci. For example, Ross' (1995) study into the level and content of the written “theory-to-practice” reflections of twenty-six students undertaking a teacher preparation programme at the University of Florida involving the students' use of teacher effectiveness research, revealed five main content areas: “examples of use or non-use of recommendations of teacher effectiveness research”; “problems, concerns, or limitations in teacher effectiveness research”; “beliefs or experiences that confirm the truth of teacher effectiveness literature”; “defining good teaching in the basic skills - reading and math”, and; “defining good teaching in general” (Ross, 1995: 27). Two questions guided students' writing: ‘What is good teaching practice?’ and ‘How does a teacher make decisions about which practices to use in any given situation?’ (*Ibid*.: 27).

Other studies have focused on what teachers reflect on when the content of their reflection is not determined by others. MacLellan (1999) used three descriptive categories to analyse the content of twenty-five final written reflective commentaries selected at random from students on a post certificate course in education. The students could write about a “topic of professional importance” to them (MacLellan, 1999: 437). The content categories used to analyse reflections were: “conceptualisation of the practice”; “implications of the practice”, and; “veracity of the practice”. The authors

considered these categories both manageable and a “comprehensive means of capturing varied and diverse content which was represented in written form” (*Ibid.:* 438). Korthagen and Vasalos (2005: 52) state that teachers' reflection tends to be focused on “the environment, “behaviour (of students)”, “competences (to deal with student behaviour)”, and “beliefs (about students' behaviour, teaching)”.

2.2. Types of reflection

A dimension which has intrigued scholars and researchers is 'types' of reflection, also synonymous with 'levels' or 'quality' of reflection in some studies. Regardless of the terminology preferred, knowledge of this dimension is vitally important to teacher educators as it may help them to devise strategies that encourage student-teachers to develop their potential to reflect as well as an indication of their development or growth in this ability. This in turn may determine the success of courses or programme goals. Indeed, prescribed assessment of student-teachers on these programmes may involve assignments which include ‘reflect’ or ‘reflection’ in their rubrics, which means that their work should provide evidence of reflection. However, students and even teacher educators often do not have a clear idea of the concept of reflection in such assignments or how this can be articulated (Calderhead and Gates, 1993: 3). Looking for evidence of reflection without any set criteria is difficult. The results of such endeavour may uncover reflection which is “productive” or “unproductive” (Davis, 2006: 282-283). Being able to identify the differences between these or changes in patterns of reflection, whether conducted by teacher educators or student-teachers themselves, would lead to more reflexivity.

A look into the ways in which types of reflection have been described in the literature reveals another side of its complexity. Types of reflection are a source of confusion and controversy (Valli, 1993: 18; LaBoskey, 1993: 26). This has a lot to do with how scholars and researchers perceive them. This may be as a series of developmental stages which teachers tend to move from or show evidence of in sequence. Types of reflection may be organised in hierarchies or along continua denoting quality of reflection. Some types of reflection may be preferred over others or all types may be viewed as necessary. Yet another difficulty in description is that type, content and process of reflection are often combined within the same description, or terms for each one are used interchangeably. This is seen in some of the most influential works (Dewey, 1933;

Van Manen, 1977; Schön, 1983; Zeichner and Liston, 1996). This is because terms such as 'technical' and 'critical' can be used to describe states of being (of teachers), performance (in the classroom), or features or attributes of the craft of teaching as in focusing on the technical side of teaching in terms of acquiring skills or demonstrating competences. These terms have frequently been used to describe very different levels of reflection within a single framework (see Valli, 1992; Hatton and Smith, 1995; MacLellan, 1999) or used within descriptions when other labels have been attributed (see Dinkelman, 2000; Pachler and Field, 2001; Jay and Johnson, 2002; Ward and McCotter, 2004; Thorsen and DeVore, 2013). Regardless of where they have been used, the terms 'technical' and 'critical' are viewed as distinctly different and occupy extreme opposing positions within frameworks. The term 'framework' is used here as a neutral term. The extent to which they are viewed as inferior or superior to one another depends on the perspective of those who created such frameworks i.e., whether they intended them to denote a hierarchy or continuum of low to high level of reflection, or as the rungs on a developmental ladder. In the case of a hierarchy, technical is placed at the lower end and critical at the higher.

Hatton and Smith (1995) argue that it is necessary to have a developmental sequence of reflection which incorporates a focus on the development of basic teaching competences which student-teachers need to master for survival. Thereafter, it is important for teacher education programmes to foster the development of "more demanding reflective approaches" affording the opportunity of the student-teacher to gradually become aware of the impact of their practice on others (*Ibid*: 46). Inherent in the typology of reflection of Jay and Johnson (2002: 77) is the process of reflection itself from "descriptive" (problem setting) to "comparative" (reframing the focus of reflection in light of alternative views, perspectives and research) to "critical" (establishing a new perspective from all considerations and implications). It is not intended as a hierarchy but "an instrument that encourages reflection on multiple levels and from multiple points of view" (*Ibid*.: 80). Pachler and Field's (2001) "differentiated model of theorising and reflecting" consists of the following levels: "technical", "practical", "critical or emancipatory" and "professional". Beginning teachers are encouraged to reflect on their work at each of these levels within situated contexts moving to ones that are less situated, skill or competence-based, and more abstract/conceptual. Kitchener and King's (1977) seven stages are developmental as they suggest that reflective

judgement becomes complex over time with further experience (Kitchener (1977) and King (1977) cited in Ross, 1995: 25).

The coding scheme of Sparkes-Langer *et al.* (1990) known as "The Framework for Reflective Thinking" consists of seven levels denoting types of language and thinking within reflections. The framework was devised from teacher educators' experiences of attempting to assess teachers' reasoning about classroom and school events, and an interview in which teachers were asked to identify a successful and unsuccessful teaching event and reasons for their choices. The seven levels of the framework are hierarchical with Level 1 representing the lowest level of reflection and Level 7, the highest:

Level 1: No descriptive language
Level 2: Simple, layperson description
Level 3: Events labeled with appropriate terms
Level 4: Explanation with tradition or personal preference given as rationale
Level 5: Explanation with principle or theory given as rationale
Level 6: Explanation with principle/theory and consideration of other factors
Level 7: Explanation with consideration of ethical, moral, political issues

(Sparkes-Langer *et al.,* 1990:27)

The framework was used to code the interview and journal reflections of twenty-four student-teachers from lower, middle and higher achieving ranges based on their coursework. This was done to ensure variability within the sample. Average interview scores paralleled course achievement which was expected. The student-teachers gave a lot of attention to the technical aspects of teaching and less to ethical and moral aspects. The authors themselves questioned the linear nature of their framework after further use of it revealed that some teachers jump levels whereas others are stalled at lower ones.

Across studies investigating types of reflection in pre- and in-service teachers' accounts of their practice, four broad categories of reflection can be identified. The types of reflection identified in the studies from which these broad categories are derived share similar characteristics and descriptions. To facilitate organisation in this section, they are referred to as Type 0, 1, 2 and 3, and a label which encompasses the characteristics of each type is attributed to each one. These four types of reflection were used in the construction of a rubric for the analysis of the types of reflection engaged in by teachers in the study described in Part II of this thesis (see Appendix 3).

Type 0

Mezirow (1991) cited in Kembler *et al*. (1999) separates "non-reflective action" from "reflective action". For him, non-reflective action is that which is "habitual", "thoughtful" and "introspective". Habitual action is that which has become routinised and done without thought, what Valli (1992) calls "behavioural" and Ward and McCotter (2004) call "routine". With regard to teachers' spoken or written accounts of their practice, this may consist of a description of procedures, routines and operations of practice without any justification. This resembles Hatton and Smith's (1995: 48) rubric criterion for descriptive writing. For Lee (2005) this is "Recall level" and for Chamoso *et al*. (2012) it is "Generality". Mezirow (1991) saw 'introspection' as that which relates to affective thoughts and personal reactions to experiences. However, the origin of these feelings is not examined and this does not result in any changes in practice and therefore remains at the non-reflective level. The label 'descriptive/behavioural' can be attributed to Type 0 reflection.

Type 1

This is characterised by low-level justification for actions based on unsupported personal beliefs, theory which is viewed as absolute and unquestioned, or compliance with course guidelines. It resembles routine action in that it is action carried out without thinking too much about the principles behind it. There is reference to 'critical' in the sense of blaming others or the teaching context for lack of success. Emphasis is very much on the teacher and their developing competences. This relates to Van Manen's (1977) level of "Technical rationality", Stages 2 and 3 of Kitchener and King's seven stages of reflective judgement (1977), and Levels 3, 4 and 5 of the framework for reflective thinking of Sparks-Langer *et al.* (1990). It also resembles Mezirow's (1991) "thoughtful action" described as applying theory without a consideration of its principles in context (1991). This level is also referred to as 'technical' by some authors (Valli, 1992; Hatton and Smith, 1995 where it is also known as "descriptive reflection" within the rubric for analysis of teachers' written accounts of their practice; MacLellan, 1999; Pachler and Field, 2001; Ward and McCotter, 2004). For Jay and Johnson (2002) this corresponds to the level of "description" in their typology of reflection. For LaBoskey (1993) the type of teacher engaged in this type of reflection most resembles a "Common Sense Thinker" who is self-oriented and relies on their personal experience in learning to teach. This teacher lacks awareness of what they need to learn and relies

on their own knowledge, experience and skills. This type of reflection may be attributed the label ‘descriptive/analytical’.

Type 2

Characteristics of this type of reflection are a shift in focus from the teacher to others involved in the teaching/learning process. Teachers understand the effects of their practice on others. There is a recognition of responsibility and a more heightened awareness of self in action. It is mindful, committed action (Dewey, 1933). Teachers are open to more perspectives, and begin to question their deeply held beliefs and their own practice. They demonstrate an ability to analyse and interpret their actions, and show signs of being able to theorise their practice using multiple sources. Their questions often lead to further problematising and hypothesising where solutions are considered. Thus, they frame and re-frame their actions (Schön, 1983). This corresponds to Stage 4 of Kitchener and King's (1977) seven stages of reflective judgement. For Mezirow (1991) it is the beginning of “premise reflection”. For Lee (2005) this corresponds to the “Rationalisation Level” where teachers look for connections within their experiences and interpret with more sophisticated rationale to the point of theorisation or generalised principles. This level is labelled ‘dialogic' by a number of authors (Hatton and Smith, 1995; MacLellan, 1999; Ward and McCotter, 2004) owing to the strong presence of the self in the teachers' reflections as they work through their understandings of their practice which leads to new insights. Hatton and Smith (1995: 48) state that this involves a “stepping back from events/actions leading to a different level of mulling about”. For Valli (1992) this corresponds to “Deliberative (social efficiency)” and “Personalistic” (developmental)” levels in her framework. For Jay and Johnson (2002) it is about being “Comparative” in the sense of reflecting in the light of alternative viewpoints (including one's own). In Pachler and Field's (2001) model this corresponds to the “Practical” level where the teacher is concerned with the “assumptions, predispositions, values and consequences with which actions are linked”. For Chamoso *et al.* (2012) this is “Argumentation” when the teacher argues, justifies, draws conclusions and makes new sense of their practice. For LaBoskey (1993) this type of teacher is an “Alert Novice”. The label ‘dialogic/interpretative’ may be attributed to this Type 2 reflection.

Type 3

Type 3 reflection is characterised by an acknowledgement of the potential contribution of the teacher's new knowledge and understandings to their teaching context and beyond. A new reformulated perspective is revealed, evidenced in a more objective, principled stance portraying views which relate to the social, moral and ethical worthiness of change. There is an understanding that one's efforts not only affect these realms of life but are also determined by them. There is an appreciation of this 'complexity' and how one fits into it. Reflections reveal a deeper, critical understanding of the teaching experience and open-mindedness to further opportunities to experiment in practice and effect change which, in turn, brings about new clarity and the potential to drive the momentum for further change. This relates to Van Manen's (1977) "Critical reflection/dialectical". A number of studies characterise this level as 'critical' (Valli, 1992; Hatton and Smith, 1995; MacLellan, 1999; Jay and Johnson, 2002). Pachler and Field (2001) call this "Critical or Emancipatory" and refer to the extent of the individual's freedom of action as determined by other contextual "forces". Ward and McCotter (2004) use the term "Transformative" which emphasises the potential for and impact of change on the individual and their ability to ask "fundamental questions" which bring about this new perspective. They use this label so as to avoid confusion between other interpretations of the word 'critical' as in the sense of blaming which is associated with Type 1 reflection. Chamoso *et al.* (2012) use the term "Contribution" which is indicative of the consequences of positive change in terms of improvements to understanding and the development of practices. In Kitchener and King's (1977) seven stages of reflective judgement (1977) this corresponds to Stages 5, 6 and 7 which focus on the ability of the teacher to modify their judgement and practice based on new understandings and contextual evidence. For Mezirow (1991) this corresponds to "Premise Reflection" which according to Kember *et al.* (1999) includes "perspective transformation", "a critical review of presuppositions from conscious and unconscious prior learning and their consequences" (*Ibid*: 23). For LaBoskey (1993) these are the attributes of a "Pedagogical Thinker", one who shows openness to learning, who is a strategic, imaginative thinker and whose reasoning is grounded in self-knowledge, knowledge of subject matter and awareness of learner needs. This type of reflection may be attributed the label 'critical/transformatory'.

Just as there are studies which have characterised a type of thought that is non-reflective and which can be situated at one of the extreme ends of a hierarchy/continuum, there are others that indicate an extreme higher level of reflection. Hatton and Smith, (1995) include the level of 'reflection-in-action' in their developmental framework recalling Schön's (1983) terminology and notion of 'knowing-in-action', the ability to call upon multiple perspectives to make on-the-spot adjustments to practice whilst in the midst of action. In a developmental framework, this ‘highest of levels’ is the one that marks attainment of expertise characteristic of professional practice. However, it is debatable that such a level should be included in a framework for pre-service teacher education, as such 'expertise' is likely to be unachieveable within the confines of a practicum (MacLellan, 1999: 438; Davis, 2006: 283). The framework of Pachler and Field (2001) contains “Professional” which is related to the concept of responsibility for continued professional development which lies with teachers themselves. It is possible to view this as the extent to which a student-teacher seeks out new ways of increasing their knowledge of teaching, for example, through reading or attending conferences, or considers further teacher development courses beyond the practicum.

A knowledge of types of reflection is important in the design of teacher education programmes which aim to guide teachers in becoming reflective practitioners.

3. Operationalising reflective practice

With an awareness of what reflection involves, what teachers may reflect on and the types of reflection they may engage in, teacher education programmes may set about operationalising effective reflective practices within them. A frequent criticism of such programmes is that, whereas they claim to incorporate reflective practices or have reflection as a goal, they rarely do what they set out to achieve, or practice what they preach. Dinkelman (2000: 195) states that “[t]hough reflective teaching is now firmly rooted in the mission of teacher education, not much is known about how this aim is accomplished”. Operationalising reflective practice is no easy feat given its many interpretations, teaching contexts and teachers' specific needs (Farrell, 2001: 24). However, ignoring this is tantamount to institutions of teacher education not accepting full responsibility to educate future teachers in extremely important practices which prepare them for life-long learning. Boud *et al.* (1985: 8) warn of the dangers of assuming that reflection is taking place as follows:

> The activity of reflection is so familiar that, as teachers or trainers, we often overlook it in formal learning settings, and make assumptions about the fact that not only is it occurring, but it is occurring effectively for everyone in the group. It is easy to neglect as it is something which we cannot directly observe and is unique to each learner (...).

Operationalising reflective practice will also depend on the principles and goals of the institution and course programme. Wildmen and Niles (1987) cited in Moon (1999: 68) identify three principles that influence reflective practice in teaching contexts: "support from administrators in an education system"; "availability of sufficient time and space"; and the "development of a collaborative environment with support from other teachers". In some contexts this may require a change in perspective of how the student-teacher is viewed and trained, from one who delivers a curriculum like a technician to one who actively seeks to investigate their practice (and that around them) and bring about change. Student-teachers may be prepared with a body of knowledge to get them through the practicum and be minimally encouraged to be adventurous at the cooperating school, to fall in line rather than take risks. The limited nature of some practicums may mean there is a focus on getting the technical side right as a demonstration of suitability for teaching and general competence. Student-teachers may struggle with preconceived notions of good teachers being expert technicians. Indeed this may be the expectation from schools where they are conducting their practicum. There may even be some resistance to reflective practice from those who view the process as extra work with no visible gains. Such views and expectations may have been influenced by traditional models of teacher education.

3.1. Broad frameworks: Traditional models of foreign language teacher education

Traditional models of teacher education have focused on the transmission of knowledge and skills about teaching. Such models are not exclusive to teacher education and mirror those of professional education in general. Drawing on the work of Schön (1983; 1987), Wallace, (1991) presents these models within the context of foreign language teacher education. They are described as the 'craft' and 'applied science' models. Wallace offers a third 'compromise' model in the 'reflective model'. The main differences between the three models are the source of knowledge and skills, the relationship between theory and practice, and the degree of teacher involvement. Another extremely

important issue is what constitutes the knowledge or content of teacher education programmes and where this comes from. The three models of teacher education are outlined below.

3.1.1. The Craft Model

This is a model whereby the student-teacher learns the 'craft' of teaching from a more experienced teacher within a real teaching context. The technical side of teaching is emphasised with student-teachers observing and then replicating what they have observed in their own practice contexts. This has been likened to an apprentice learning the tricks of the trade from a wise master craftsman, and is how the craft is passed on from one generation to another. The craft itself is rarely questioned, and the skill is pure mechanical transmission from master to subordinate. Applied to teaching, it is easy to see the drawbacks of such a model. Teaching is not a static craft and contexts differ considerably. The observe-replicate principle on which the craft model is based does not allow for the student-teacher to develop their own thoughts and ideas about teaching. S/he is not encouraged to think of why such strategies and techniques are used. There is little or no consideration of the theory behind them. Adopting this model runs the risk of producing teachers who replicate inappropriate methodologies, techniques and materials well into their professional careers and are resistant to change (see Wallace,1991: 6-7; Ur, 1991: 5; Edge, 2011: 15)

3.1.2. The Applied Science Model

In this model the student-teacher applies the 'science' of teaching i.e., the theory espoused during the teaching course, in their own practice contexts. This model sees teaching as a 'science' that was developed outside the classroom by academics and based on what empirical research states is successful student learning in the classroom. As with the craft model, student-teachers are not expected nor encouraged to question the authority of such theories, but merely to apply them, assuming that such theory can be applied to all contexts. However, all too often the gap between those delivering theory on teaching courses at universities, for example, is too distant from that of the school context and the complexities of the classroom, and teachers' professional lives. This can lead to miss-matches and inappropriate choices of methodology in the classroom in order to satisfy university assessment criteria. Such a model does not provide space for student-teachers to develop their own theories of their classroom

practice, but rather encourages them to theorise their practice with already existent theory deemed best practice. Whereas the craft model encourages a replication of practice with little thought of theory, the applied science model favours the authority of theory and its application in practice. To its credit, and where best administered, it does encourage thought albeit an identification of theory before and after practice (see Wallace, 1991: 8-10; Ur, 1991: 5; Edge, 2011: 15-16).

3.1.3. The Reflective Model

In the reflective model (see Figure 5 below), theory and practice are equally significant. Schön refers to theory in professional contexts as "professional knowledge" (1983: 6). Wallace (1991: 12) further divides this knowledge into "received" and "experiential" knowledge. Applied to teaching, this means that both theory received during a teaching course and that gained from the experience of observing other teachers as well as the act of teaching itself, fuse in a reciprocal relationship which contributes to a growing 'awareness' of practice. When this practice is reflected upon before, during and after the teaching act, awareness takes on a heightened state. This understanding of theory and practice is called 'praxis' or as Edge puts it, "mindful, committed activity" (2011: 17). In Schön's (1983: 50) terms this is "knowing-in-action". Reflection is the stimulus that drives the process towards personal and professional development. In a sense, the reflective model contains elements of both craft and applied science models, in the practice and theory of teaching respectively (Edge, 2011: 15). However, the major difference is that the student-teacher is directly involved in the process of their own professional development. They may be initially guided and supported in this process by a school mentor or university supervisor, who helps them to structure their reflection in preparing to teach and reporting on teaching, but the act of understanding their teaching lies with the student-teacher alone. The reflective model acknowledges that student-teachers have not entered their teaching course as blank slates and have their own pre-formed ideas about teaching, i.e., their personal knowledge. They should eventually adopt, as Richards (1987: 223) states "the role of autonomous learner and researcher, in addition to that of apprentice". Articulating this understanding of one's practice may be difficult. It is a type of tacit knowledge which is very often unconscious and rarely explained.

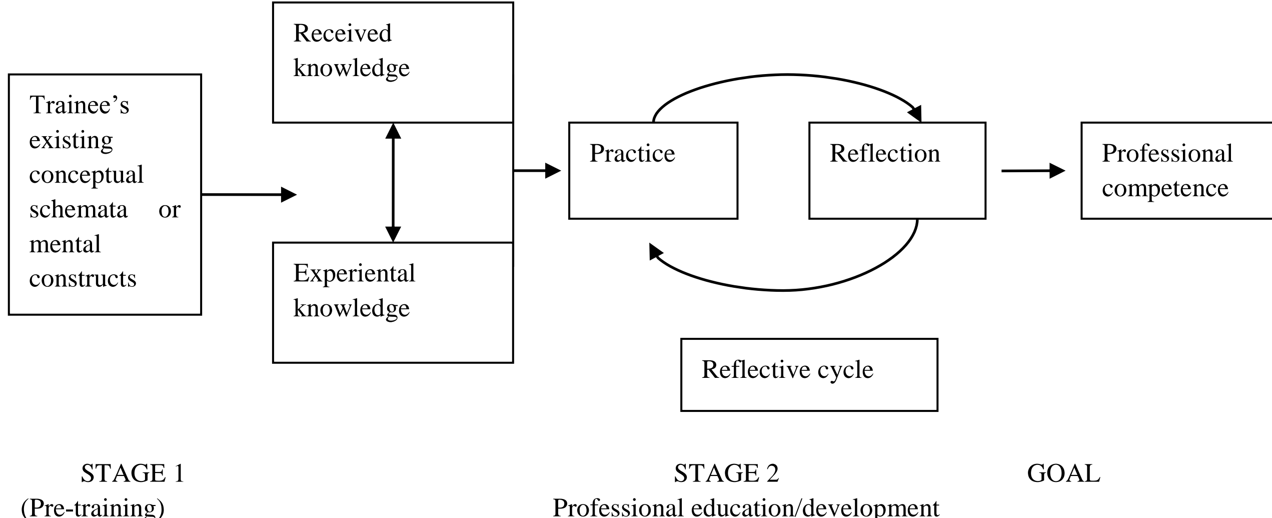


Figure 5. The reflective practice model of professional education/development (Wallace, 1991: 49)

In theory, the Reflective Practice Model accounts for the reconceptualised knowledge base which draws on teachers' knowledge brought to the context of the teacher education programme (Stage 1), knowledge gained from this programme, from theory and practice through observation and actual teaching which also acknowledges contextual knowledge from the institutions where this teaching takes place. A fundamental element in this model is how all of this knowledge is processed (Stage 2) in such a way that it leads to development (Goal) and lifelong learning. The key to this is the conscious thinking about teaching that takes place whether before or after teaching or during the act of teaching itself (Reflective cycle). The challenge for teacher educators and for teachers themselves is how to structure and sustain this reflection. The challenge is as great whether the teachers involved are beginners or experienced. Experienced teachers naturally bring different degrees and levels of knowledge than those without experience. This knowledge will already constitute practical knowledge gained from years of experience in the classroom. It is a knowledge that will also contain teachers' own theories of teaching. The challenge is to provide opportunities for the development of new knowledge which does not conflict with such theories, but rather allows these to be re-evaluated and understood in a new light, as well as test this in practice and ensure that this leads to development. But in order for this to happen, a framework of reflection needs to be developed. Wallace (1991: 54) cautions at programmes which do not account for this:

> The unthinking or rote application of innovation is an invitation to disaster. All too often, teachers attempt an approach or technique which has been reduced to a formula, with obviously no understanding of the rationale of the method or technique being used or its application in the particular context. The teacher has not been given, or has not taken, the opportunity to think the thing through, and to think it through in terms of her own context. (Wallace, 1991: 54).

Ur (1996: 6) speaks with reservation about the reflective model suggesting its tendency to "over-emphasize experience" with student-teachers' personal knowledge favoured at the expense of other external input which may help to make sense of it. She suggests that within such a model, teachers need support in processing both types of input for this to become "personally significant". This, she calls, "enriched reflection". Ur elaborates on Kolb's "Experiential Learning Model" (1984: 42) which accounts for four modes of learning in a recursive cycle of "concrete experience", "reflective observation", "abstract conceptualization" and "active experimentation". To provide for more enriched reflection, Ur (1996: 7) adds external sources to the model. These are "vicarious experience", "other people's observation", "input from professional research and theorizing", and "other people's experiments".

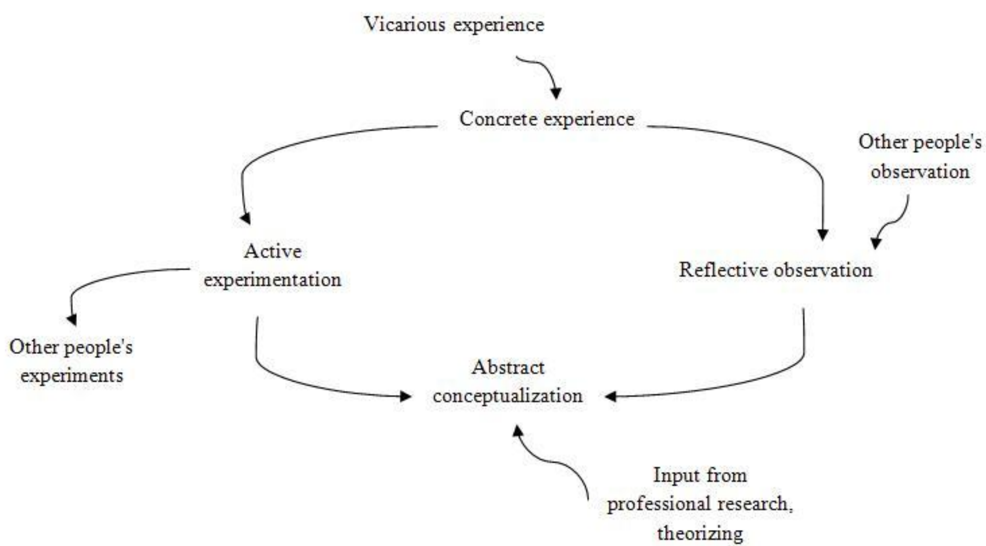


Figure 6. Enriched reflection (Ur, 1991: 7)

Ur's additions to Kolb's original schema broaden the holistic experience of reflecting. These are natural additions which rather than 'contaminate' individual thought and experience, provide opportunity for shedding further light on it by gaining new

perspectives. Ur (1996: 7) emphasises the impact of enriched reflection on the individual, "[T]he most important basis for learning is personal professional practice; knowledge is most useful when it either derives from such practice, or, while deriving from other sources, is tested and validated through it".

3.2. Supporting teachers' reflection: the role of the facilitator

Teachers need time and opportunities to reflect, and time and opportunities to learn how to reflect (Moon, 1999: 166). It is important that teacher education guides this process. Not only is it beneficial to student-teachers, but also for the profession, as from surfacing what and how teachers reflect, we learn more about teacher cognition and teachers' practical theories which can feed back into the knowledge base of teacher education. Burton (2009: 303) laments that much to do with teaching is being lost as teachers do not write about their insights. Teacher education practices must strive to understand what it is that makes teachers do what they do, that which Borg calls the "unobservable dimension" (2009: 163). Golombek (2009: 159) likens teachers' personal practical knowledge (PPK) to "teaching maxims" that teachers activate during practice. She goes on to further state that:

> Conceptions of PPK must embody that dynamic, holistic complexity resulting from teachers' interactions between making sense of their particular teaching context and students at a particular time, the images that anchor their teaching, and the pedagogical choices they make. (Golombek, 2009: 159).

This knowledge needs to be surfaced so that teacher education providers may be better able to give support where it is needed. C. Day (1993: 88) states that "reflection is a necessary but not sufficient condition for learning. Confrontation either by self or others must occur. Teachers need challenge and support if their professional development is to be enhanced". Those involved in this process with teachers must themselves be "skilled helpers" who do not control teachers but help them understand what they are doing and why (*Ibid.*: 88). This person can help bridge the gap between theory and practice which prevents important information and perspectives from remaining hidden (Harrison *et al.*, 2005: 421). Wallace (1991: 60) talks of this in terms of recalling "professional action" in order to make it available for reflection, and then analysing it within a "reflective process". He presents four key parameters which are a part of this process: "primary data" and "medium" which are part of recalling professional action, and,

"interpreter" and "interpretation" which are part of analysis (*Ibid.*: 60-62). Primary data are what constitute the events of professional action, for example, what happened during a lesson. This can also incorporate pre-lesson discussions as part of this experience. These events may be directly or indirectly experienced as in the case of viewing a film of a lesson. "Medium" refers to how primary data is recalled such as through "personal" or "documented recall", "audio", "video" or "transcript" (*Ibid.*: 63). The "interpreter" is the person or people involved in interpreting the primary data. This could be the student-teacher him/herself, peers, mentor and/or supervisor. The "interpretation" of professional action will depend on whether there are specific pre-determined criteria or not.

Handal and Lauvås (1987), place the teacher-learner at the centre of a counselling approach to teacher development where their personal practical theories are made more conscious to the teachers themselves. Adopting the ideas of LØvlie (1974), Handal and Lauvås (1987: 10-12) break down teachers' practical theory into three components, "personal experience", "transmitted knowledge and experiences, and "values". These authors state that this implies a process involving:

- helping the teacher realize what kind of knowledge and values underlie her practice;
- clarifying the reasons and justifications of significance to her;
- confronting her knowledge/values with alternatives outside, or already embedded in her practical theory;
- facilitating the teacher's own identification or internal contradictions and conflicts within her own practical theory. (Handal and Lauvås, 1987: 17).

This process, though not intended to be hierarchical or linear, is represented by a triangle divided into three levels (see Figure 7. below). The P1 level of action relates to what happens in the classroom and is essentially practical operations. P2 is prospective and retrospective, and considers practice in light of knowledge and experience. It is the mulling about and contemplation of what has happened and why, and the consequences for future experience. At the P3 level, the teacher questions the value of their teaching in light of ethical and political considerations.

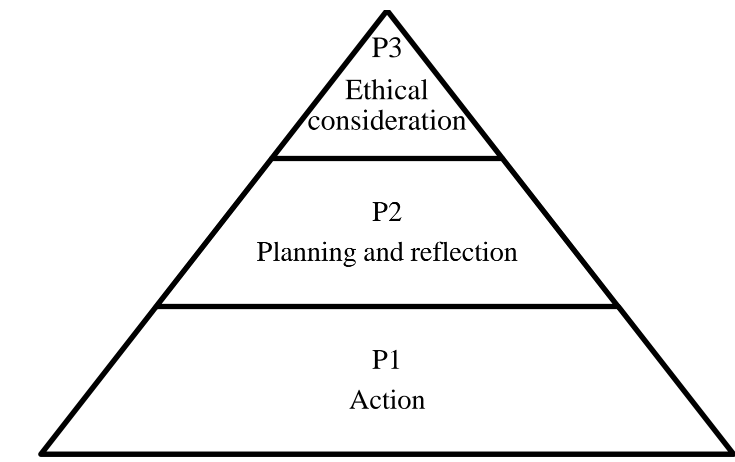


Figure 7. The Practice Triangle of Handal and Lauvås (1987)

Handal and Lauvås (1987: 27) argue that limiting discussion of teaching practice to the P1 level would be to ignore the scope and potential of teachers' practical theories. However, it is here that teachers often remain through lack of time to reflect or lack of awareness on how to reflect. They further elaborate on the potential of P2 and P3. The Level P2 may reveal teachers' theory-based and practice-based reasons in planning lessons. Theory-based reasons lead to "competing truths" in the practice situation and are therefore worthy of analysis by the teacher (*Ibid.*: 27). Practice-based reasons relate to evidence of what works in the classroom which questions the applicability and effectiveness of the teacher's choices. This may reveal tension between theory and practice. The teacher may opt for "practice-based" reasons as opposed to others that are theoretically grounded (*Ibid.*: 27). However, such reasons may not take into consideration other ethical or moral values as they have been focused on practical effectiveness of getting the job done. Here, a different stance is required to establish whether a particular form of practice is the right thing to do. A richer, more holistic type of practical theory can then be nurtured.

Boud *et al.* (1985: 11) suggest a model of reflection which gives prominence to the affective dimension of teaching and the teacher in particular. This dimension, they suggest, greatly influences reflection. Positive feelings can stimulate and enhance motivation and further interest in teaching, whereas negative feelings can distort perceptions of teaching and construct psychological barriers. They propose a three-stage model of reflective practices which consists of 1. "Returning to experience" and recounting events non-judgementally as they occurred 2. "Attending to feelings" by

identifying and utilising positive feelings and removing negative ones which could be obstructive to an analysis of experience. 3. "Re-evaluating experience" in light of perspectives gained from the new experience and how these may become integrated into a new plan of action (see Boud *et al.,* 1985: 26-31). These authors acknowledge that although the teacher can be actively engaged in this process him/herself, much more can be gained and the process accelerated, with others. An effective facilitator is important in helping the teacher to tease out the details of their practice. This can happen in an initial stage where the facilitator offers no interpretations or analysis. Following this, teachers can be encouraged to surface the feelings they experienced during teaching so that they can be clearly understood as barriers to learning which can be broken down or motivators which can enhance it. In the next stage, facilitators can act as a resource providing suggestions for further techniques or act as a "sounding board" to help clarify the teacher's ideas (*Ibid*.: 38).

Larrivee (2000: 301) emphasises the often negative influence of teachers' core beliefs on their practice which can "set teachers up for disillusionment and a loss of a sense of self-efficacy". She suggests that in the process of developing self-reflective practice the teacher can pass through levels of core beliefs which involves a "screening process" whereby they may consider an aspect of their practice, for example, a classroom incident, a reaction to a student, against a backdrop of "interpretive filters" (*Ibid*.: 299). From the stimulus to the response, the filters are: "past experiences, beliefs, assumptions and expectations, feelings and mood, personal agendas and aspirations" (Larrivee, 2000: 299). She suggests that by bringing more of the filters to their awareness and resisting typical, almost conditioned, thoughtless reactions, the teacher allows him/herself a broader range of considered responses, thus breaking the pattern and opening the door for new perspectives to enter. This heightened awareness brings challenge to every decision the teacher makes as it affords them a choice of responses and new possibilities (*Ibid*.: 301).

Another model which draws attention to the affective dimension of teaching and the role of facilitators in this is the ALACT model (Korthagen and Vasalos, 2005) named after the phases present within its cyclical process of reflection: "Action", "Looking back on the action", "Awareness of essential aspects", "Creating alternative methods of action" and "Trial" (Korthagen and Vasalos, 2005: 49). At each phase of this process,

Korthagen and Vasalos suggest types of interventions from those involved in the teacher education process, for example supervisors' questioning techniques. They state that such questions can touch upon further dimensions of "wanting, feeling, thinking and doing" which are highly influential affective factors for both teachers and learners (*Ibid*.: 50). It is this they say that sets the model aside from others where there is more of a focus on analysis of teachers' more rational behaviour.

As well as the ALACT model, Korthagen and Vasalos (2005: 53) present a more in-depth form of reflection which they term 'core reflection'. They represent this as an "onion model" which describes the different levels upon which reflection can take place with the outer layers and inner layers potentially influencing each other. The layers (outer to inner) are "environment", "behaviour", "competences", "beliefs", "identity" and "mission" (*Ibid*.: 54). An important and distinctive feature of this model is the attention to core qualities in people as well as competences acquired (*Ibid*.: 56). It is addressing these core qualities whilst progressing through the different phases of the ALACT cycle that enhances core reflection. The supervisor helps to emphasise the strengths of the student-teacher's personal qualities identified in earlier practice whilst drawing attention to what it is they need to develop in themself. It is all about identifying potential and developing it in new experiences. Core reflection is "a tailor-made approach to the promotion of reflection", a form of personal and professional development for individuals aided by attentive facilitators (*Ibid*.: 63).

No model of teacher education can claim to be truly educational or developmental in the sense of helping teachers to develop their knowledge, skills and understanding, unless there is deliberate and conscious reflection within it. Reflection of the type that leads to development does not just happen. This type of reflection needs to be planned for within teacher education programmes. Jay and Johnson's (2002: 76) "Typology of Reflection" attempts to scaffold thinking which "bridges theory and practice" in a pre-service teacher education programme at the University of Washington. Their typology consists of three dimensions, "descriptive, comparative and critical" each accompanied by a series of supporting questions which are used by students to help them frame their reflections in group seminars and in written portfolios. The typology serves a dual purpose of both modelling and encouraging reflection on different levels. It raises students' consciousness of types of reflection and their awareness of how to make their

own reflections deeper within a secure framework where they can articulate their ideas and feelings without fear of losing face. It is also useful for feedback on written work to encourage further elaboration within dimensions.

In any model of teacher education which is reflective there should be practices which are designed to encourage and develop reflection. As R. Day (1993: 11) states, "To be truly integrative, reflective practice activities have to be a critical part of the students' entire program of studies, and used in all courses, regardless of the type of knowledge with which they are concerned". In other words, reflective practice should be at the heart of the degree course, and methodology, techniques and materials used by practitioners on such courses should account for this.

4. Modes, techniques and tools for promoting reflection

In order to meet the claim that their teacher education programme is reflective, teacher educators must design programmes which incorporate direct teaching of reflection, or at least, procedures, techniques and tools which support and maintain systematic reflective practices. There are a number of means to do this on courses which include a practicum. These consist of different modes, written or spoken, and can be undertaken by individuals or groups. Providing student-teachers with a range of tools and modes through which to reflect will give them with the opportunity to find their preferred means of reflecting. Reflection may be structured or *ad hoc*. Structured reflection may lead to less guidance with time as the student-teachers become more autonomous and "self-directed" (Moon, 1999: 171). What is important is that reflection is supported within a process of accommodating new received and experiential knowledge into previous knowledge, and consciousness raised of how this is integrated within new patterns of behaviour (*Ibid.*: 179). This is particularly important for inexperienced teachers who may be less conscious of what they bring to teaching contexts (Roberts, 1998: 152). Richards and Farrell (2005: 37) mention the importance of "self-monitoring" which can be done by collecting and recording information about teaching as a basis for changing practices brought about by reflection. They say that "[self-monitoring] can help teachers develop a more reflective view of teaching, that is, to move from a level where they are guided largely by impulse, intuition, or routine to a level where actions are guided by reflection and self-awareness" (*Ibid.*: 37). Moon (1999: 180) puts forward a four-phase schema to guide reflective activity which is

essentially retrospective, but also involves anticipation. The phases are: 1. “Develop awareness of the nature of current practice”; 2. “Clarify the new learning and how it relates to current understanding”; 3. “Integrate new learning and current practice” 4. “Anticipate or imagine the nature of improved practice”. This can be built into any activity, mode or tool used to promote reflection during a practicum.

Given the personal nature of reflection, an important element regarding the circumstances in which teachers disclose their reflections to others is that of trust (Barnett, 1995: 53; Farrell, 2001: 36). Teachers are unlikely to open up about themselves and their practice if this brings about judgements from others. In the case of student-teachers, if they feel like their ideas are not likely to meet the approval of the teacher educator, they may not give honest reflections, preferring to adjust them accordingly. This is particularly the case if assessment is involved (Hatton and Smith, 1995: 43; Borg, 2009: 168). Regardless of the form and circumstances in which reflection takes place, there must be openness, honesty and respect from all parties.

4.1. Written reflection

Written reflections may take different forms, from short field-notes to longer accounts of lessons observed or given, or other aspects of the practicum experience. Such reflections may focus on particular features of teaching noted in diaries or journals which may be private or shared with others. It is important that these are maintained during the practicum. This serves two purposes, that the student-teacher may see evidence of his/her progress from their perspective, and to maintain the momentum of reflection, thus supporting good reflective ‘habits’. Bartlett (1990: 209) emphasises the contribution of writing to reflective practice, “In writing, we begin not only to observe, but we take the first step in reflecting *on* and *about* our practice”. This is echoed by Burton (2009: 303) who outlines the benefits of writing for this purpose:

> [W]riting can offer more than a strategy for documentation. Writing is a composing process, which means that it actually involves reflection. Moreover, writing can document reflection-in and on-action. So in itself writing has the potential to function as a uniquely effective reflective tool.

Writing can provide important evidence of reflection which may not be captured elsewhere unless teachers’ spoken reflections are audio or video-recorded. The

permanency of writing means that it can be revisited, and the ideas within it can be reviewed and re-evaluated, allowing growth or progress to be identified, and "learning can be upgraded" (Moon (1999: 187). It can "stimulate" and "shape" ideas (Porter *et al.,* 1990: 234). The act of writing can develop meta-cognitive processes and can bring about self-awareness (Wodlinger, 1999: 236). As Holly (1989) cited in Moon (1999: 188) states it "facilitates consciousness of consciousness which enables critical self-enquiry".

4.1.1. Journal writing

A common form of encouraging written reflection on teacher education programmes is through journal writing. Richards and Farrell (2005: 68) provide a comprehensive definition of a teaching journal:

> A teaching journal is an ongoing written account of observations, reflections, and other thoughts about teaching, usually in the form of a notebook, book or electronic mode, which serves as a source of discussion, reflection, or evaluation. The journal may be used as a record of incidents, problems, and insights that occurred during lessons; it may be an account of a class that the teacher would like to review or return to later; or it may be a source of information that can be shared with others.

They state that without such a "record" of practice, teachers have nothing to use as "a source for further learning" (*Ibid.*: 69). Moon, (1999: 188) identifies two rationales for journal writing as, "the potential for self-criticism" and "the development of the understanding of the personal construction of knowledge". Journals can be a means for teachers to explore and discover new 'territory' related to their practice. They can be used as a starting point for discussing their practice and development with others. Porter *et al.* (1990: 227) state that this is part of a process that allows teachers to "generate and connect ideas, change preconceived notions, and connect abstract ideas and experiences". Writing allows teachers to be detached and objective, yet remain intimately involved in the experience. Teachers may "step back from an experience for a moment in order to create an understanding of what the experience means" (Richards and Farrell (2005: 70). If this is done systematically, and if teachers review their journal entries regularly, then they may be able to 'see' their professional development unfold. Bailey (1990: 224) highlights the important "awareness-raising function" of journals, though she cautions that the level of introspection may be uncomfortable for some

teachers, and suggests that journals or diaries should be an option among other forms (*Ibid.*: 225).

Journals may be structured or unstructured, private or public. Structured journals may ensure that student-teachers reflect on specific issues (see Richards and Lockhart, 1996: 16-17, for an example of question prompts). There should be a purpose or focus to journal writing if it is to be truly beneficial for the student-teacher. In the initial stages of a practicum, this focus may be determined by the teacher educator. When, what and how much to write in journals will depend very much on the purpose, audience and criteria for assessment should this be included. Moon (1999: 203) cautions at journal exercises which become mere "recipes to be followed" rather than "used with awareness and concern [to] generate reflective activity". An example of the use of structured journals is provided by Surbeck *et al.* (1991) who analysed the biweekly journal entries of ten student-teachers who had been asked to reflect on the content and readings of their teacher education programme in relation to: 1) "their beliefs and knowledge about teaching"; 2) "how such information was applicable in field experience and/or other classrooms"; 3) "how children responded (or might respond) to methods students experienced in class"; and 4) "personal reflections and feelings about the teaching/learning process, both in the college classroom [and in their practicum schools]". These authors identified three broad categories within the journal entries each with its own sub-categories: Reaction (positive, negative, report, personal concern); elaboration (concrete, comparative, generalised); contemplation (personal focus, professional focus, social/ethical focus) (*Ibid.*: 25-27). The tendency of the student-teachers was to organise their reflections according to the broad categories. Surbeck *et al.* (1991: 27) also identified a "rough progression of thinking from personal and concrete to social/ethical perspectives". In student-teachers' answers to the question: 'Why should we write a journal?' there were comments about the increased comprehension of concepts when written, as well as the time taken to write which was seen as synonymous with time to reflect. The authors claim that the use of journals, "assists prospective teachers in becoming better thinkers who probe both professional literature and their own teaching/learning ideas and action" (*Ibid.*: 27).

Dialogue journals are an interesting alternative to individual journals. In the context of teacher education, these take the form of comments or questions from the teacher

educator on the student-teacher's reflections, which in turn, encourages response and further dialogue. Richards and Farrell (2005: 73-75) state that journal responses by supervisors or other teachers may be of different types: "affective and personalising comments", "procedural comments", "direct responses to questions", "understanding responses", "exploratory suggestions", "synthesis comments and questions", and "unsolicited comments and questions". Such 'dialogue' can help to guide reflection when needed, propel it forward and improve its quality. Lee (2007) used dialogue and response journals to encourage the reflection of thirty-one pre-service teachers in two universities in Hong Kong. Dialogue journals were what the student-teachers wrote and exchanged with the teacher educator; response journals were what the student-teachers used to write about teaching and learning issues raised in their course. The study revealed a number of benefits and problems of journal writing. Dialogue journals were appreciated as they offered support and advice on a personal level although Lee (2007: 327) warns that this could lead to a dependency on support or an interpretation of the tool as a means of getting advice rather than for developing autonomy. Thinking was facilitated by the flow of writing. The student-teachers viewed the process as something that could be transferred to their own future teaching contexts using their own experience as an authentic example. On the negative side, issues related to lack of ideas for weekly entries and the difficulty of sustaining interest (*Ibid*.: 327). Lee (2007: 328) suggests providing guidelines in the form of questions or other prompts to sustain reflection. Student-teachers should also be encouraged to re-read their entries to give them a sense of their own development.

Writing about teaching experiences does not appeal to all teachers. Farrell (2001: 34) believes that some teachers may prefer not to write journal entries because the whole act of writing is laborious and time-consuming. This is further exacerbated if programmes demand that it be done in a language which is not the mother-tongue of the teacher. He further states that the "time lag" in writing may be a hindrance compared with the here and now of a group discussion where ideas can be "tested" and instant feedback given. Ideas can also be created and nurtured in collaboration.

4.1.2. Lesson reports

Lesson reports are the student-teacher's written accounts of their teaching experiences. A lesson report may be guided via a list of questions or prompts which have been pre-decided by the teacher educator. Reports will likely include a description of the lesson, an evaluation of what went well or did not, accomplishment of lesson goals and possible lines for further improvement. Richards and Farrell (2005: 39-41) point out the advantage of such writing in developing insights which the teacher had no time to consider during the teaching act. They state that written narrative accounts of lessons can be both descriptive and reflective, and that in the latter, "the teacher critically reviews what happened and comments on what could be improved or what can be learned from the lesson" (*Ibid*.: 39). Lesson reports may complement a post-lesson conference between student-teacher and supervisor. This may help the student-teacher to consolidate their own thoughts as well as incorporate the perspectives of others into their thinking. If the lesson report precedes the lesson conference, it may well encourage more deliberate, focused and objective analysis of a lesson which often does not come from the immediate feedback in a conference where the student-teacher may be highly emotional and unable to think clearly.

4.2. Spoken reflection

In teacher education programmes, spoken reflections may take place during group seminars with student-teachers and teacher educators or in individual tutorials. Both present opportunities for reflection on and for practice. The advantage of group seminars is that student-teachers may gain perspectives from others in similar positions to themselves. The group dynamic may also foster a spirit of collaboration and a healthy sharing of experiences and ideas. Moon, (1999: 172-173) considers this to be of benefit to all, "[L]earning to be helpfully supportive to another person's reflective processes can be a learning process just as much as learning to reflect itself". Yost *et al*. (2000: 43) emphasise the importance of dialogue in pre-service seminars which "offers a way for students to externalise thinking skills and develop a clear, thought-out point of view". This is done through an examination of theoretical frameworks in relation to actual teaching practice. However, seminars may not always bring out the perspectives of all members of the group. Some less-forthcoming student-teachers may shy away from expressing their ideas. Others who are more outgoing may dominate discussion. Moon (1999: 173) cautions that group sessions can be "good hiding places for those

who want to avoid engagement with learning or reflection". For these student-teachers, tutorials with teacher educators offer another means of engaging in spoken reflection where they may feel less inhibited and are at less risk of losing face. A skilled teacher educator may be able to guide and tease out the thoughts of such student-teachers.

4.2.1. Pre- and post-lesson conferences

Pre- and post-lesson conferences are standard procedure in most teacher education programmes which involve a practicum, and form part of what is commonly known as 'clinical supervision'. However, much depends on the degree and approach to supervision during such conferences, and who might be involved. Gaies and Bowers (1990: 168) state that clinical supervision is "an ongoing process of teacher development that is based on direct observation of classroom teaching performance". These authors define the two roles of trainer and educator that language teaching supervisors must play:

> As trainers, supervisors are concerned with technical improvement: that is, in showing teachers that what they are doing can be done better. As educators, supervisors must be concerned with strategic change: that is, in showing teachers that what is done in the classroom might be done differently and in sensitizing teachers to alternative classroom practices. (Gaies and Bowers, 1990: 168).

These roles are closely aligned to the "supervisory behaviours" noted by Wallace (1991: 110) which tend towards either a "classic prescriptive" or "classic collaborative" approach. The former approach puts the supervisor in the position of extreme authority and expertise, one who has pre-defined ideas about lesson format and delivery. The classic collaborative approach, on the other hand, sees the supervisor as a facilitator who guides the student-teacher towards developing autonomy through reflection. Expertise is shared and decisions about lessons are in the hands of the student-teacher. In reality, supervision will probably contain a mixture of the two approaches. This may be in accordance with the development of the student-teacher's autonomy, from more to less reliance on the expertise of their supervisor over the course of a practicum. Faneslow (1990: 183) proposes a form of supervision that emphasises "self-exploration – seeing one's own teaching differently", one which is process-driven rather than product-oriented. Gebhard (1990: 156-166) highlights six models of supervision: "Directive", "Alternative", "Collaborative", "Nondirective", "Creative", "Self-help –

explorative", each demonstrating a specific set of behaviours. He states that supervisors tend to limit their approach to specific behaviours which runs the risk of "restricting" or "retarding" teachers' growth and responsibility (*Ibid.*: 166). He suggests experimenting with a range of supervisory behaviours.

The extent to which reflection will occur during lesson conferences will largely depend on the supervisor's ability to structure opportunities for it, for example in the form of a set of questions or prompts given to the student-teacher before or during the conference which may focus on specific aspects of the lesson and may be inclined to certain types of reflection. Here it would be important to ask a range of questions which promote lower as well as higher order thinking, from description of events to analysis and effect of actions. Knowledge gained from recent practice is not easy to surface and express (Moon, 1999: 179) and will depend on the supervisor's skill at noticing and teasing out elements in the student-teacher's discourse which could lead to further analysis. Barnett (1995: 53) emphasises the importance of such "probing". Student-teachers need first to describe the teaching event in as clear and precise a way as possible in order for it then to be explored more deeply. Encouraging student-teachers to order their thoughts on teaching events into a sequence of event description, analysis and interpretation would also help to promote different types of reflection. Gibbs, (1998) cited in Moon, (1999: 167) highlights such a framework or "reflective conversation" as consisting of:

- a stage of description of events, details, being objective, questioning how knowing has occurred, how the experience is similar or different from others;
- a stage entailing judgements about the quality of the experience, the best and worst features;
- a stage of analysis where there is deeper questioning of what happened, making sense of it and how it might be explained

The supervisor can help the student-teacher to articulate their thoughts within such a framework. Bailey (2006: 42-43; 2009: 274) draws on sociocultural theory to explain why the supervisor's role is important in helping the student-teacher access knowledge and skills within their zone of proximal development (see also Randall and Thornton, 2001: 51-56). The supervisor may adopt a specific role framework of scaffolding in order to encourage student-teacher reflexivity. Chamberlin's (2000: 656, cited in Bailey, 2009: 271) points about supervision mirror the reconceptualised view of teacher

education as embracing reflective practice and experimentation. Of the supervisor, she comments that, "once viewed mainly as an expert evaluator, [s/he] is now charged with the responsibility of gaining teachers' trust and creating an environment that cultivates reflection, exploration, and change". Supervision plays an essential and pivotal role in developing reflective practices in teacher education.

4.3. Techniques and tools

Teacher education can include a number of activities and experiences which incorporate reflective practices. These may be represented as clines (Wallace, 1991:90) or continua (R. Day, 1993: 3) which extend from low risk activities such as study and mock lesson planning and delivery in the teacher education institution, to higher risk individual and autonomous teaching of lessons in school as part of a practicum. Common techniques and tools are: micro-teaching, observation tasks, lesson plans, filming lessons, critical incidents, portfolios and action research. These are discussed below in terms of their potential for reflection.

4.3.1. Micro-teaching

Planning and delivery of 'mock' lessons or parts of lesson activities for peers on a teacher education course can be useful preparation and rehearsal for a real teaching scenario. Micro-teaching combines both received and experiential knowledge in a reflective cycle. Wallace (1991: 91) says that micro-teaching provides for " 'safe experimentation' in the gradual development of professional expertise". Here student-teachers can focus on both the technical side of teaching as well as discuss their choices and decision-making in light of their developing awareness of broader practices. Micro-teaching enables student-teachers to focus on specific aspects of teaching as they are learned. These can then be tried out during a short activity after which feedback may be given, and possibly a further opportunity to teach the same activity with planned improvement. Wallace (1991: 93) breaks this down into four stages: 1. "The briefing", 2. "The 'teach", 3. "The critique", 4. "The 'reteach". This organisation makes the process manageable, safe and incorporates systematic reflection.

4.3.2. Observation tasks

Observation tasks are normally structured tasks undertaken during a practicum where a novice teacher observes a more experienced teacher giving lessons. Tasks may focus on

a specific aspect of teaching, for example, the teacher's formulation of instructions or classroom management. The purpose of the task is for the novice to home-in on specific skills and strategies which they may find useful when they come to teach. They make lesson observation for novice teachers more manageable in that they focus on a specific aspect of teaching rather than the whole event which may be too overwhelming. Observation tasks may nurture habits of 'noticing' in student-teachers to the point where they no longer need the structured task itself, or they may design their own. In emphasising the importance of structured observation, Wainryb (1992: 1) says that "the ability to see with acuity, to select, identify and prioritise among a myriad of co-occurring experiences is something that can be guided, practised, learned and improved". If the same tasks are carried out by student-teachers observing the same class, or by teachers in different schools and then discussed in seminars, they will surface different and shared perspectives. Observation tasks can set the reflective process in motion and provide an important link between received and experiential knowledge. They can lead to a reassessment of personal assumptions about teaching in light of the practice of others (Cosh, 1999: 22). According to Gebhard *et al.* (1990: 21) observation tasks can provide the impetus for more classroom inquiry into one's own practice as they "set the groundwork for investigative projects which can provide student teachers with the methodology for understanding their own teaching processes and behaviors".

4.3.3. Lesson plans

Written lesson plans may take many forms and the amount of thinking which goes into their construction will depend on the individual teacher. It is obvious that in order to put together a lesson plan the teacher must consider a number of variables such as the students, learning styles, previous learning, as well as more fixed, predictable things such as time, as well as context. However, building reflection into lesson planning involves making direct links between variables and teaching acts explicit within a coherent sequence of events. This can be done by including procedural aims in the lesson plan. Such aims are the rationale for each lesson stage. The incorporation of procedural aims into the lesson plan makes teachers account for every step of the process. It forces them to answer the question, 'What am I doing and why am I doing it?' This encourages them to theorise their actions.

Ho (1995: 66) advocates the use of "reflective lesson plans" as an aid to developing reflective practices. Such lesson plans are those on which diary entries or notes are made about how a particular lesson went. These written comments serve as indicators for improvements for future lessons. In practice this would involve the teacher giving the same lesson more than once to different classes. The lesson plan is written on one side of A3-sized paper with space to write 'reflective notes' by each step in the procedure. Ho suggests that notes may relate to macro and micro aspects of teaching such as "principles and beliefs underlying teaching, and issues beyond the classroom", as well as "the mechanics of teaching" (*Ibid.*: 67). This procedure is similar to an action research cycle of reflect, plan, act, observe (Kemmis and McTaggart, 1982). It helps the teacher to focus on teaching as a process of decision-making and resultant action. As the same lesson is given shortly after, it allows teachers to reconstruct their practice and see the positive results of their limited experience. In addition, a combined focus on micro and macro aspects of teaching in relation to practical application helps to reduce the gap between theory and practice. Combined, these two elements are the motivation for further action.

4.3.4. Using films of teachers' lessons

In reality teachers rarely have opportunities to be observed teaching and still fewer to see themselves teach. They may have an awareness of their own ability and actions in the classroom, but this is highly subjective and often distorted from "objective reality" (Richards and Farrell, 2005: 36). Video-recordings of lessons can provide a valuable 'reality check' for teachers. As Schraz (1992: 89) cited in Richards and Lockhart (1996: 11) comments:

> Audio-visual recordings are powerful instruments in the development of a lecturer's self-reflective competence. They confront him or her with a mirror-like "objective" view of what goes on in class. Moreover, class recordings which are kept for later use, can give a valuable insight into an individual teacher's growth in experience over years.

Video-recorded lessons are a more objective, neutral means of capturing teaching events than others which rely on memory and subjective interpretation (Day, 1990: 46). It is easy to see how they may be a useful tool to aid self-reflection and collaborative reflection on teaching. They may enable teachers to spot things missed, focus on specific aspects of teaching, and can be a common frame of reference for reflections.

They can be returned to in order to examine different aspects or gain new insights into teaching. They provide important evidence to back up an observer's comments, and of a teacher's progress. Upon viewing themselves teach, teachers may feel the need to change their practice, and are more likely to remember to implement change where there are dichotomies between their ideas about good teaching and what they have seen as constituting their actual practice (see Tripp and Rich, 2012a). In the study of Eröz-Tuğa (2013) which used video-recorded lessons of student-teachers during their practicum to develop reflective feedback, results revealed that these had been useful in developing student-teachers' in-depth awareness of their teaching and that of their peers. There were improvements in terms of trying to remedy problems identified, their self-confidence, and their ability to reflect critically from one discussion to the other with the result that by the time they were to give assessed lessons, they were in a much better frame of mind and a lot less anxious. They also became a lot less dependent on others for feedback. The process "empowered and motivated the teacher candidates" (*Ibid.*: 181).

In their extensive review of sixty-three studies into the use of videos to help teachers reflect on their teaching, Tripp and Rich (2012b) identified six dimensions where studies differed. These were: 1) types of reflection task; 2) the guiding or facilitation of reflection; 3) individual and collaborative reflection; 4) video length; 5) number of reflections; and 6) ways of measuring reflection (see Tripp and Rich, 2012b: 680-686). Types of reflection task were identified as those which are undertaken while or after viewing the video of a lesson. Such tasks include using codes or checklists, interviews or conferences (for video-based feedback with the potential for different perspectives to emerge from those viewing), writing reflections, (notes, essays, questionnaire responses, journal entries) and editing videos to provide specific evidence to support reflection. Reflection was guided in the form of questions, rubrics, checklists, and providing a framework for systematic reflection as opposed to letting teachers select their own focus, though it could be argued that both are necessary and dependent on the teacher in question. The studies revealed that teachers actively sought and appreciated feedback from mentors, university supervisors or peers. Teachers also found group discussions highly beneficial because they helped them "clarify, examine and challenge their teaching assumptions and practices" (*Ibid.*: 683). In addition, group viewing of novice teachers' lessons helped these teachers to notice mistakes in each others' lessons

which they would become conscious of avoiding in their own as well as the progress their peers were making over a sequence of lessons. Peer comments were influential in bringing about change. Allowing teachers to select clips of their teaching helped them consider the justification behind their choices and allowed for more ownership and autonomy to choose what to focus on.

4.3.5. Critical incidents

Getting student-teachers to recount significant moments in their practicum which they feel were turning points in their own learning or the learning of their students, or evaluate the 'worth' of their actions is a necessary part of teacher education, but not easily done. These 'significant moments' may be termed 'critical incidents'. Richards and Farrell (2005) say that critical incidents can aid professional development in the following ways: they can "create a greater level of self-awareness"; "prompt evaluation of established routines and procedures"; "encourage teachers to pose critical questions about teaching"; "help bring beliefs to the level of awareness"; "create opportunities for action research"; "help build a community of critical practitioners"; "provide a resource for teachers" (see Richards and Farrell, 2005: 115-117). This may be facilitated by a series of questions that can tease out the details of the critical incident, thus deepening the quality of the reflection. This may be best achieved through conferencing than through writing as the face-to-face interaction with the supervisor can help to ensure that what is said by the student-teacher is explored at that moment. The critical incidents of individuals have benefits for the whole group as each member may learn something from the experience of others and may also offer essential new perspectives on practice. They have the potential to surface previously uncovered assumptions about teaching which may have influenced the incident, and for these assumptions to be weighted against new understandings.

4.3.6. Portfolios

A teaching portfolio is a holistic record of the events of the student-teacher's practicum. It is a map of their development which may contain concrete evidence of work accompanied by written records and reflections. It is not merely a collection of artifacts, but explanations and reflections which attribute meaning to them. The compilation of a portfolio helps to stimulate self-appraisal and encourages student-teachers to keep a record of their achievements over time. It is normally shared with others and sometimes

even 'showcased'. 'The European Portfolio for Student Teachers of Languages (EPOSTL): A reflection tool for language teacher education' (Newby *et al*., 2007) is a concerted attempt to encourage student-teachers to monitor and record their reflections on their developing didactic knowledge, skills and competences during their teacher education programme. The aims of the portfolio are indicative of the main principles of reflective practice:

1. to encourage students to reflect on the competences a teacher strives to attain and on the underlying knowledge which feeds these competences;
2. to help prepare students for their future profession in a variety of teaching contexts;
3. to promote discussion between students and between students and their teacher educators and mentors;
4. to facilitate self-assessment of students' competence;
5. to help students develop awareness of their strengths and weaknesses related to teaching;
6. to provide an instrument which helps chart progress.

(Newby *et al*., 2007: 5).

The portfolio consists of six main sections: a personal statement (initial statement at the onset of teacher education programme based on the student-teacher's own experience of being taught and his/her expectations of the teacher education course); self-assessment ('can-do' descriptors on key teaching competences related to: context, methodology, resources, lesson planning, conducting a lesson, independent learning, assessment of learning, a reflection grid to record reflections on the descriptors); a dossier for recording examples of work and evidence that is consistent with reflections on development of skills and abilities; a glossary of key terms; an index; and a users' guide. The portfolio encourages both personal and dialogic reflection. The 'can-do' descriptors for each of the self-assessment categories are accompanied by bars which may be shaded to chart awareness and progress during the teacher education programme. The portfolio acknowledges and builds on the concepts and formats of the Common European Framework of Reference, The European Language Portfolio and the European Profile for Teacher Education – a framework of reference. Its authors state that it is an attempt to "harmonise teacher education across Europe" (Newby *et al*., 2007: 83). The portfolio is extremely comprehensive in its coverage of descriptors which may be to its advantage. Richards and Farrell (2005: 42) advocate the use of checklists and questionnaires as they are able to cover a large number of issues related

to teaching which may be omitted in a written narrative. However, there is a danger that these may well turn into superficial checklists which do not prompt the depth of reflection for which they are intended (Moon, 1999: 172).

4.3.7. Action research

Action research is inextricably linked to reflective practice in its inquiry-oriented approach to classroom teaching, teacher development and professional responsibility. Although it is placed in this section on 'techniques and tools', it really merits full consideration as an inquiry-oriented approach to classroom teaching, a description and discussion of which is beyond the scope of this section. What is presented here is an overview of the potential of action research for developing reflective practice in pre-service teacher education.

Action research arises from the need to effect a positive change in the classroom context for which the teacher formulates and directs a plan of action which typically involves cycles of planning, action, observation and reflection. Nunan (1990: 62) states that the primary goal of teacher education is "to give teachers ways of exploring their own classrooms". Action research is important for all teachers but particularly for student-teachers who are learning about teaching and need the opportunity to formulate their own ideas about what is happening in their classrooms. Engagement in action research in pre-service teacher education is vital in that it helps to equip teachers with skills needed for life-long investigation into practice, and personal and professional development. If initiated well, it will be seen by student-teachers as an integral part of teaching. As Yost *et al*. (2000: 44) say, "[i]f pre-service teachers are engaged in action research projects, they will likely internalize the fundamental aspects of the inquiry process". Ponte *et al.* (2004: 596) emphasise that this should happen sooner rather than later in a teacher's career:

> If students are not introduced to the excitement and power of action research during the period of initial teacher education they may not turn voluntarily and readily to such a way of learning later in their career. The likelihood of teachers opting to learn from the thoughtful and critical study of their own practice is greater if such activity had been legitimized during initial education. (Ponte *et al.,* 2004: 596).

Indeed many practitioners avoid becoming involved in researching their own classrooms because of the associations research has with complex statistical methodologies. It is therefore vitally important to introduce student-teachers to small-scale research in their practicum as a default procedure for viewing their classrooms. Vieira and Marques (2002: 13) suggest that a lack of such pedagogical experimentation weakens the relationship between teacher education and school pedagogy. A research paradigm which allows student-teachers autonomy to choose what they consider worthy of improvement in their teaching or classrooms, to devise their own plans of action and construct practical theories is empowering and emancipatory (Edge, 2001; Reason and Bradbury, 2001; Moreira, 2001 and Moreira, 2010). This, provided of course that it is introduced to them as something that is useful, accessible and manageable. Action research empowers teachers by (re)enforcing habits of problematising practice, development of strategies to improve teaching and learning, and systematic reflection on action.

5. Operationalising CLIL within a reflective model at FLUP

In this section a means of operationalising CLIL within the Masters in Teaching English and another Foreign Language in Basic Education at FLUP is put forward. This is done within the broad framework of Wallace's Reflective Practice Model of Professional Education/Development (1991: 49) which has been in operation since 2006. Reference is made to the accumulating experience of the author with regard to CLIL and how this has been fed into the Masters programme. A consideration of how the reflective model can be adapted to incorporate CLIL is provided. This is done by taking into account the knowledge base of English language teacher education and what could be considered a knowledge base for CLIL teacher education (drawing on key areas from Chapter 2) against the backdrop of English language teacher education in basic education and primary English language teaching in particular, in Portugal where, to the author's knowledge, there is little CLIL activity. It is thought that by incorporating CLIL within a reflective model of teacher education more insights about this educational approach will be gained from student-teachers which may contribute to the knowledge base of teacher education at FLUP.

5.1. Masters degrees in Teaching English and another Foreign Language at FLUP

In order to teach foreign languages in lower and upper secondary schools in the state system in Portugal, teachers are required to have a professional/vocational Masters degree or equivalent[21] in teaching two foreign languages. At the time the study of this thesis took place (2010/2011) there were no further requirements to enter the teaching profession in Portugal. Two Masters degrees in teaching English and another foreign language were introduced in 2007-2008[22]: Master in Teaching English and another Foreign Language in the third cycle of Basic Education and Secondary Education (MEIBS); and Master in Teaching English and another Foreign Language in Basic Education - covering primary, middle and lower secondary education (MEIB). It is the second of these Masters degrees (MEIB) which is of interest to this thesis. Both Masters degrees consist of core and optional subjects taught over two years, and a one-year practicum in the second year of the degree. The main difference between the two Masters degrees in Year 1 are the optional subjects available to students. For MEIBS these include Production of Teaching Materials, and for MEIB, the study of children's literature for both foreign languages.

The 'Introduction to Professional Practice' in the second year of the Masters degrees corresponds to the practicum and pre-service seminars at FLUP. The practicum for MEIBS takes place in a single school with which the university has established a protocol. In this school, student-teachers, (usually between 2-4) are assigned two 'mentors', one from each foreign language area. Mentors are experienced teachers of foreign languages. Student-teachers observe these mentors teaching and then teach lessons in their classes. In the case of MEIB, the practicum took place in different schools owing to the coverage of three compulsory cycles of education in this Masters degree.

Pre-service seminars take place at FLUP and operate in alternate weeks with one three-hour seminar in one foreign language taking place each week. During the second year of the Masters, student-teachers are required to conduct small-scale action research in

---

[21] The precursor of the current Masters degree was the Curso de Especialização em Ensino de Inglês e outra Língua Estrangeira. This consisted of a four-year Bachelor's degree which included methodology of teaching foreign languages and a one-year practicum.

[22] See Decreto-Lei nº 74/2006, de 24 de Março e Decreto-Lei nº 43/2007, de 22 de Fevereiro.

schools. This action research is the focus of a teaching practice report (a type of dissertation) which must be written and submitted to a jury before being defended at a later date. All taught and practical components of the Masters degree are assessed. In order to obtain the Masters in Teaching English and another Foreign Language (MEIBS and MEIB), students need to have successfully completed and satisfied assessment criteria in all compulsory elements of the two-year programme.

5.1.1. Master in Teaching English and another Foreign Language in Basic Education (MEIB)

One of the main reasons for introducing this Masters degree was the need to provide better qualified teachers for teaching English in primary schools. When English language teaching began in primary schools in 2005, very few people who occupied teaching posts for teaching English in schools were qualified for such a role. There was a desperate need for appropriately qualified professionals for this area. A number of short teacher training courses became available including an online course developed by the Ministry of Education, but nothing as substantial as a Masters degree with a year-long practicum.

FLUP became involved in the recruitment and pedagogic support of primary English language teachers in schools in Porto in 2005 through a protocol with Porto city council as part of the Ministry of Education's initiative to provide extra-curricular enrichment activities in primary schools. It was for this reason that the STEPS-UP project (Support for Teaching English in Primary Schools – University of Porto) was set up in the academic year 2005-2006. The STEPS project provided support to these teachers through a variety of means, both face-to-face and virtual, creating and nurturing a community of practice of primary English language teachers in the city of Porto. The project created a number of products such as a four-year primary English language syllabus, and a set of guidelines for collaborating with primary generalist teachers produced by the author, as well as other criteria such as that for assessment developed by primary English language teachers in working groups. Under the auspices of the STEPS-UP project, the faculty gained knowledge and experience of implementing English language lessons in primary schools. Experience had also been gained through short in-service teacher development courses in teaching English in primary schools given by the author. A large quantity of material had been produced along with a variety

of techniques which had already been ‘piloted’ with participants. The vision of the Masters degree at FLUP was to provide better qualified teachers for positions in those primary schools which would involve Masters students and student-teachers. There was also the potential for conducting research within and between the cycles of education covered by the degree. However, owing to incompatibility within the Ministry of Education’s system of coding qualifications and allocation of teaching positions which led to difficulties for graduates of The Masters in Teaching English and another Foreign Language in Basic Education obtaining positions within some school clusters, this Masters degree has not been offered by FLUP since 2012.

5.1.2. Content of the English language teaching programme for MEIB

Like all other institutions of higher education in Portugal, FLUP enjoys a high degree of autonomy as to the content of its degree courses. The broad frameworks of degree programmes are decided by specialist scientific committees within the faculty. Once subject components have been established, it is the responsibility of the teachers of these subjects to devise suitable content and assessment procedures for them.

The didactics of ELT programme for MEIB covered two semesters and consisted of two two-hour lessons, one theory and one practical, per week. The theory lessons in both semesters were attended by students from MEIB as well as MEIBS. Thus, these lessons covered broad-ranging underlying principles of English language teaching such as the history of ELT, SLA, the Common European Framework of Reference, learning styles and multiple intelligences (Semester 1), lesson planning, theories of teaching grammar, vocabulary, and the four main language skills – reading, writing, listening and speaking (Semester 2). For practical lessons, students were divided into the two Masters groups, MEIBS and MEIB, thus allowing for more focus on teaching in the specific cycles for these degrees. Content of the practical lessons for MEIB related directly to the practical implications of the theory and principles for the teaching of younger learners including cross-curricular language teaching and CLIL as well as that appropriate for older learners. As English was the only foreign language being taught in both primary and middle school contexts, the onus and responsibility at faculty level lay within the didactics programme for English and not that of other languages. The methodology employed in both theory and practical lessons focused on student participation and

group work. In practical lessons, students were also involved in micro-teaching lessons planned for younger learners in primary schools.

In the second year of this Masters, student-teachers were placed in lower secondary schools with which FLUP had a protocol. Within these schools they were supervised by two mentors, one for each language level. Student-teachers following both degree programmes are obliged to teach foreign languages at two distinctly different educational levels. As the MEIB Masters degree covered three cycles of basic education, student-teachers undertook part of their practicum in primary schools, and where possible, middle schools, within the same school cluster. If the student-teacher was already teaching in a primary school outside of this cluster of schools, they were allowed to conduct their practicum within that school with the consent of the school authorities. In the case of this school being situated a considerable distance from the lower secondary school, the main responsibility for supervision lay with the university supervisor (the author) and not the school mentor from this school.

5.2. Stages of the reflective model and CLIL

The stages of the reflective practice model within the English language teacher education programme at FLUP are now examined in turn for how they can account for the knowledge base for English language teaching and CLIL. In Chapter 2 seven areas of the knowledge base of teacher education were outlined. These are: 1) content knowledge of the subject matter; 2) pedagogic knowledge of generic teaching strategies; 3) pedagogic content knowledge - the how to related to the teaching of the specific content including methods, materials, assessment; 4) support knowledge – the knowledge of the disciplines that inform an approach to teaching and learning such as linguistics, SLA and psychology, research methods; 5) curricular knowledge (of the official language curriculum and resources); 6) contextual knowledge (of learners, the school and wider community); and 7) process knowledge (consisting of enabling skills – ability to relate to learners, other teachers and parents; study skills, collaborative skills, inquiry skills – for observation and self-evaluation; and meta-processing – of self-awareness and self-management).

The knowledge base may be adequately realised over the two years of the Masters degree programme where there are separate but reciprocal elements of theory and

practice which form part of a mutually beneficial process within the reflective cycle realised within the practicum year. It is vital for student-teachers to have the opportunity to test theory in practice and the possibility to develop new practical theories of their own. As Lasley (1989: i) cited in R. Day (1993: 6) states, “Too many of us as teacher educators concern ourselves singularly with communicating content rather than attending to how prospective teachers transform that content into pedagogical practice”. The process benefits all involved – student-teachers, faculty, and school mentors, from whose actions and perspectives the knowledge base develops. It cannot be assumed that all theoretical knowledge will be applied appropriately which is why a practicum is an essential element of teacher education programmes. As R. Day (1993: 7) puts it, “Theoretical understanding of pedagogical content knowledge is only partial understanding”.

The stages of Wallace’s Reflective Practice Model of Professional Education/Development (1991: 49) are: “Stage 1. Pre-training. Trainee’s existing conceptual schemata or mental constructs”; “Stage 2. Professional knowledge: Received and experiential knowledge”. Both stages lead towards the goal of “Professional Competence” (see Figure 5. p.146). These stages were being developed to incorporate CLIL at primary level more extensively at the time when the study of this thesis was taking place.

5.2.1. Stage 1. Pre-training. Trainee’s existing conceptual schemata or mental constructs.

It is likely that student-teachers will have beliefs and hold values about English language teaching which have come from their own experience as students of the language at school in Portugal or limited experiences of teaching. It is less likely that they will have had any significant experiences of learning foreign languages as children or of CLIL during their schooling in Portugal unless they attended fee-paying foreign language medium instruction international schools in the country. CLIL would likely be an abstract concept at this stage with little for student-teachers to draw upon from the context in Portugal. They may have heard of the acronym and may have an understanding of the broad concepts underlying it. Therefore, this needs to be teased out and clarified. An obvious way to do this is via a comparision with foreign language teaching which is also favourable since it at least partially covers student-teachers’ own

experiences from which they may contribute an understanding. During didactics lessons in the first year of the Master's programme, students could be encouraged to reflect on their experiences of ELT, their beliefs and values regarding teaching English across the range of levels, and CLIL as it is introduced to them in theory. The principles behind CLIL could be presented, as well as internal and external forces such as European policy which have propelled it forward.

5.2.2. Stage 2. Professional education/development

In the reflective practice model, professional education/development comes about from a fusion of professional knowledge and practice within a reflective cycle. Professional knowledge consists of received and experiential knowledge. This may be divided into that received during university courses, observing others teach, and the experience of teaching itself. In the context of this Masters degree, the former relates mainly to the didactics of English language classes. Here the knowledge base is dealt with in theoretical terms. However, students are encouraged to engage in reflective practices on that theoretical input, and pseudo practice in micro-teaching and lesson planning. The fact that the teachers of didactics for ELT also coordinate the seminar programme in the second year of this Masters and supervise student-teachers during their practicum in schools, provides for important coherence within theoretical and practical elements of the course. It is also necessary to see to what extent theoretical and practical input at the university are relevant and can be realised in the school context.

A teacher education programme which incorporates different educational foci and approaches can be complex as knowledge bases differ. In the case of English language teaching and CLIL, there are distinct differences as well as similarities in each knowledge base which may be taken advantage of in the process of developing received and experiential knowledge for both. Taking the seven different elements of the knowledge base outlined above, this would imply the following:

For 1) content knowledge of the subject matter, student-teachers need to know the English language, as well as the subject content of the primary curriculum, and the English language for this content. As one of the pre-requisites for entry into this Masters degree is C1 level proficiency in the English language according to the CEFR scales, an in-depth study of the language is not required, but what needs to accompany a

pedagogic study of it is a focus on language that needs to be taught according to the content of the primary national curriculum of Portugal. Students can be introduced to the constituents and objectives of the primary curriculum. This could be analysed for key concepts, language and implied methodology. There should be particular focus on the Social Studies component ("Estudo do Meio") from which themes can be explored for their potential in primary EFL lessons and for CLIL. Analysis of national primary coursebooks for Social Studies could be carried out;

For 2) pedagogic knowledge of generic teaching/learning strategies, beliefs can be challenged in terms of perspectives on learning the language as a subject, as in the foreign language class, and using the language for other learning, as in CLIL. Language use across the curriculum can also be examined as well as a consideration of cross-curricular language teaching and 'borrowing' techniques from other disciplines to use in the foreign language classroom. There could be a focus on learning environments which foster acquisition as opposed to those where there is a conscious focus on learning the language in a comparison of the different cycles of compulsory education and age/cognitive-appropriate methodologies. Theories of learning such as socio-constructivist theories may be presented as being inclusive of both knowledge bases as well as those which focus on cognitive developmental strategies and foster collaboration;

For 3) pedagogic content knowledge there are major similarities as well as differences. These should be considered, namely in terms of aims, methods and teaching/learning strategies. The influences on CLIL methodology from various approaches and methods in ELT should be emphasised, such as the Communicative Approach, the Structural Approach, TBL, and cross-curricular language teaching. This could be done alongside the contribution that CLIL can make to language lessons in terms of content foci and cognitive developmental strategies. The uniqueness of CLIL methodology would need to be emphasised as it fuses specific subject content teaching methodologies within a language sensitive approach. There should be a consideration of the 4 Cs of CLIL and scaffolding for each type in lesson planning and delivery. Lesson plans can be produced for ELT lessons and for CLIL lessons and comparisons drawn between the two types. Attention would need to be given to the production of materials and possible assessment for the different purposes and goals in ELT and CLIL;

For 4) support knowledge, this would draw on such areas as SLA and cognitive theories, psychology, motivation, and research methods that could nurture practitioner research in each area, ELT or CLIL, or combine the two. These may be dealt with in didactics lessons, but also as separate subjects within the Masters course;

For 5) curricular knowledge, students would need to know about European and national language programmes and goals, and the content and goals of the primary curriculum as well as how these are realised through separate or interdisciplinary and holistic methodologies;

For 6) contextual knowledge, it would be especially important for students to consider the wider European and national contexts, as well as local contexts of practice for ELT as well as their potential for CLIL. This would be analysed in more depth during the practicum when students experience local contexts and gain awareness of school communities – learners, teachers, and parents and their expectations and contributions to education as well as the constraints and limitations of practice;

For 7) process knowledge, students can be guided on how to learn for themselves and develop an awareness of their potential as contributors to the learning process of others through considering the merits of their future teaching experiences and how both ELT and CLIL may mutually contribute to best practices in each, and educational practice in general. The importance of collaboration with other teachers should be emphasised especially with regard to primary teaching. This is important in all teaching contexts, but an essential element in CLIL where content and language teachers need to work together towards shared goals. A focus on what each teacher can offer CLIL is crucial to establishing the necessity and importance of both in the CLIL context. All of this is dealt with in theory and, where possible, guided towards realisation during the practicum.

The way in which the content of the didactics course is presented to students i.e., the methodology of the course itself will determine the degree of reflection in it. A purely transmission-oriented course will not provide for this. A course in which students are encouraged to think, compare and challenge new input against their existing beliefs and values, to listen and discuss issues with others, and to work on practical tasks, will

create more opportunities for reflection. This can be made explicit to students so that they become more aware of their own learning, and the need to reflect. Student-teachers are introduced to the reflective model in the first seminar at FLUP and reflective practice is outlined to them in terms of what it means, its benefits to teachers and how it is realised within the programme.

Experiential knowledge is acquired in three main ways in the Masters degree programme, from observation of experienced/expert teachers, the student-teacher's own teaching, and discussions related to teaching and teaching contexts within seminars at the university. These are all features of the practicum year. Both received and experiential knowledge feed into the reflective cycle of practice and reflection during the practicum. Systematic reflection *for, in* and *on* practice is accounted for in observation tasks, lesson plans which include procedural aims which make student-teachers aware of what they plan to do at each stage and why, pre- and post-lesson discussions with mentors, peers and the university supervisor, and seminars at the cooperating school and university where student-teachers can articulate their experience and gain further knowledge and perspectives from others.

The Practicum

The practicum of the Masters degree in Teaching English and another Foreign Language in Basic Education covers the three cycles of compulsory education. This involves a large degree of logistical and strategic manoeuvring related to cooperating schools, mentoring, observation, and actual teaching. The practicum needs to be carried out within a cluster of schools ("Agrupamento") consisting of all three school cycles which also includes primary schools where English language classes are offered. Lesson observations and teaching by student-teachers should be distributed over these cycles. The student-teachers need to have a mentor or mentors whom they observe and who guide and support their teaching. This may be an individual from one of the cycles who coordinates the whole mentoring process which involves colleagues from other cycles and schools within the cluster. This may be complicated in the area of primary English language teaching given that teachers involved in this have no professional status and could not act as mentors. Experienced and qualified professionals who may act as models of good practice in this area may also be difficult to locate and involve in this procedure.

Incorporating CLIL in the practicum would require further adjustments as it would need to involve primary generalist teachers as well as primary English language teachers (and primary CLIL teachers, if the context provides for this). Thus, a practicum for a student-teacher on this Masters degree would require the collaboration of a number of different teachers, each specialist in specific areas and levels of education. They would contribute to a potentially rich educational experience and the professional knowledge of the student-teacher. Supervision would be more collaborative and inclusive of the perspectives and support of others such as the generalist and a more experience language teacher. Listening to the voices of all is important and should be done within a symmetrical framework where each person's contribution is recognised.

Observation

Student-teachers are assigned observation tasks to do during lessons given by their mentors. These tasks mainly focus on the strategies the mentor uses for conducting lessons, their techniques, as well as the language they use. Such tasks help the student-teachers to focus on specific aspects of teaching, in a type of bottom-up approach rather than focusing on the bigger, more overwhelming picture. Observation is then guided towards the students in the classroom. Student-teachers are encouraged to create their own simple observation tasks for this. It is these observation tasks which train the student-teachers towards noticing where there are gaps or problems in their contexts. These are potential foci for action research which student-teachers are obliged to conduct as part of their practice. Student-teachers are introduced to structured observation tasks adapted from Wajnryb, (1992) at the beginning of the year to guide the observation of their mentor and their students. These tasks set the reflective process in motion and provided the vital link between in-service seminars and practice in schools. Observation tasks also provide the impetus for the introduction of student teacher-led action research. The observation tasks and action research carried out by the student-teachers during their teaching practice make reflection systematic.

The observation process could involve all types of teacher. Structured observation tasks could be designed for each type of teacher focusing on specific aspects of teaching and learning. If CLIL is not in operation within school clusters, then videoed lessons of CLIL teaching could be used. Observation of generalist teachers in the primary context

could focus on the content and language input, methodology and teaching strategies used where L1 is the medium of instruction. This would give the student-teachers an important indication of the linguistic and cognitive demands made of children in their mother tongue. Student-teachers could focus on the methodology used for specific subject content, and materials and strategies used to make input comprehensible. In addition, they could identify techniques which could be transferred to the language class. From the observation of primary English language teachers, they could observe language teaching strategies with young learners and identify content in lessons. From observations of all these teachers who each offer different types of expertise, a range of perspectives and insights into teaching will be gained. Collaboration between these teachers and the student-teachers during mentoring seminars would also bring professionals together. This is especially relevant for preparation for CLIL which may develop into better teaching partnerships and new ways of working in these school clusters making them more receptive to innovation.

The practicum of these student-teachers could consist of them giving English language lessons and CLIL lessons to the same or different groups of learners in primary schools and in the presence of 'mentors' and peers who may provide focused feedback. The implementation of CLIL classes must be negotiated with school stakeholders and a model for CLIL drawn up with all necessary pre-requisites determined including aims, subject content, amount of CLIL, assessment, and degree of involvement of generalist and English language teacher. If this is not possible, CLIL-type lessons could be undertaken in the foreign language class. This could consist of a sequence of lessons where some are language-focused and consist of language rehearsals and preparation for more content-focused lessons given later within the same sequence.

During the practicum, the university supervisor usually observes three lessons given by the student-teacher over the academic year. These lessons must be from different levels within or between cycles of education. An initial lesson observation will usually focus on basic teaching competence, attitude and rapport. Subsequent observations for third cycle and above focus on the teaching of language skills or grammar. For primary levels, observation focuses on the context in which new language is introduced, opportunities provided for acquisition and use, as well as attention to the holistic development of young learners (see Appendix 4). If CLIL is involved, then observation

will need to be focused on how the 4Cs are accounted for within or between lessons. The scaffolding taxonomy (see Appendix 1) could be used as an observation tool to check aspects of CLIL methodology, planning and execution of lessons. Student-teachers may also be encouraged to combine best practices from ELT and CLIL within both types of lesson such as the use of more participative methodology, thinking skills development, and attention to cognitive and linguistic demands in tasks and materials.

Pre- and post-observation discussions

During the practicum lesson plans are usually discussed pre- and post-observation with the student-teacher, mentor(s), university supervisor and other student-teachers from the same practicum group. In the pre-observation discussion, the student-teacher presents their ideas for the lesson and may be asked to explain their decisions and rationale which stimulates further reflection for practice. Ideas and suggestions by others in the discussion group may also be given. Post-observation feedback usually follows a specific sequence of commentaries, first the student-teacher's, then his/her peers, followed by the mentor and the university supervisor. At the beginning of the practicum student-teachers are given a set of questions to guide their spoken reflections on their lessons (see Appendix 5). This is useful for student-teachers as well as supervisors and mentors. Questions are broad-ranging and may easily be adapted to CLIL lessons. The student-teacher gives a general overview of how they felt the lesson went and then draws on strengths and weaknesses. Their peers may focus on one or more aspects of the lesson. This focus has previously been identified as an area which the student-teacher giving the lesson wishes to improve upon, or be made more aware of. Through this narrower focus, other student-teachers are able to support the learning of their colleague more constructively than an overview of the entire lesson would provide which tends to be vague, all-encompassing, and often leads to criticism. The school mentor and university supervisor provide feedback on the student-teacher's progress which may be related to specific competences, and suggest areas they need to give more attention to related to their preparation and performance, and that of the learners. The same procedure could be carried out for discussions about CLIL lessons though clearly these will need to address the unique features of this methodology and teacher competences for CLIL.

Seminars

Further opportunities for reflection are provided within the seminar programme at the university. Seminars are an opportunity for student-teachers from different placement schools to meet and share experiences about their teaching practice. They are also a crucial element in the reflective model of teacher education adopted by the English language teaching lecturers. The approach adopted is essentially reflective with the act of reflection explicitly incorporated into seminar sessions. It is in seminars that student-teachers are introduced to the reflective model of teacher education (Seminar 1). Here they meet the term 'reflection' head-on and are provided with opportunities to reflect individually and together with other student-teachers.

Prior received knowledge is weighed against attempts to realise it in practice and new knowledge obtained from these attempts. Seminars are key to maintaining momentum in reflection over the practicum. Where a teaching practice includes CLIL, seminars need to provide for discussion related to practice of CLIL within teaching contexts as well as the multi-faceted nature of such contexts including the role of all stakeholders within them. A large amount of university seminar input is related to preparing student-teachers for action research and monitoring the stages of the research process during the practicum. Action research is something that is new to the majority of student-teachers and as such great attention is given to each student-teacher's projects in their unique contexts. Student-teachers are encouraged to keep a researcher diary during their action research project. This may be structured or *ad hoc*. Guidelines for entries are provided should student-teachers opt for a more structured approach. This is intended to help them monitor significant steps in the research process as well as their own thinking. As reflection is central to action research, student-teachers are guided through cycles of systematic reflection throughout their project experience. Students also attend tutorials about their individual projects. Towards the end of the academic year they present their action research to their peers in the university seminars. These presentations are critically discussed. Where a teaching practice includes CLIL, student-teachers may be encouraged to carry out action research in their CLIL contexts. This would contribute greatly to an understanding of specific areas of practice within CLIL from the perspectives of those involved.

Portfolios

Student-teachers are encouraged to keep a portfolio during their practicum. The organisation of the portfolio is the responsibility of the student-teacher, thus providing for personalisation and autonomy with regard to layout and content. Generally speaking, the portfolios consist of initial expectations of practice, reflection on progress at the interim stage of their practice, and a final refection on the whole teaching practice; school policy documents; annual planning of English language lessons; information about classes and individual students; lesson plans and materials; tests created and administered, and results; and school seminar work and reports on other events attended or school activities they are involved in during the practicum. The portfolio is usually kept at school and monitored by the school mentors. Some student-teachers keep an electronic version of their portfolios. A practicum that includes CLIL will naturally lead to more varied portfolio entries. The portfolio itself would remain with the student-teacher and taken to schools where the practicum is conducted in order to share with mentor(s) and other teachers. This portfolio could well be a means of documenting and disseminating important information which could influence educational practices within and between schools.

Assessment

The Masters degree course contains statutory obligatory elements of assessment which are part of formula from which a final degree classification is calculated. This is a combination of marks attributed to both years of the degree. However, within certain course components, in this case the didactics course and seminars, there is a degree of autonomy as to how assessment is organised by university teachers. Assessment in the didactics course for ELT consists of written tests and coursework on theory and a practical component of language lesson plans and micro-teaching. If CLIL is involved, then the practical component could include CLIL lessons within a primary teaching portfolio. Seminar assessment consists of a 60% written component and a 40% oral component. This weighting is obligatory. The written and oral components consist of the following:

Written:

- Description of school and class teaching context;
- Reflection observation process – to include: brief context description, lessons given by mentor/peers, references to specific observation tasks (FLUP and own), and conclusions about own learning;

- Report on first taught unit.

Oral:

- Participation in and critical reflection of the action research based oral presentations of colleagues;
- Participation in FLUP in-class/seminar activities.

In a practicum that incorporates CLIL, both written and oral components can quite easily be accommodated in seminar assessment. The written component may include the CLIL teaching context; the reflection on the observation of the primary generalist and primary English language teachers if this is possible, as well as the English language mentor from the third cycle; report on both ELT and CLIL teaching experiences over the academic year – how they developed and influenced each other. The oral component should include a discussion of the varying teaching experiences of teachers over the academic year, and more specifically, a comparison of practice in terms of how similar and distinct they were from each other, and the competences each demanded and developed. Action research conducted by student-teachers may be related to CLIL experiences or some aspect of them.

5.2.3. Goal: Professional Competence

Professional competence gained from a Masters degree which includes CLIL would be extremely rich as it would incorporate different facets of teaching and foci from the varied experiences of the teaching practice resulting in the development of multiple teaching skills and competences which provide for extended real-world opportunities.

Summary

This chapter has explored the complex nature of reflection and reflective practices in teacher education. It has identified key processes, dimensions, models, tools and strategies for developing reflective practices in foreign language teacher education, as well as suggested how CLIL at primary level may be operationalised within a reflective model. CLIL has so far been incorporated into the English language teacher education programme for the Masters degree in English and another Foreign Language in Basic Education on a very small scale. In order to find out whether an educational approach such as CLIL can benefit student-teachers of English as a foreign language as well as the teacher education programme, it is necessary to conduct further research into CLIL within this context. This needs to be done within a reflective practice model where

different dimensions of teachers' reflections on CLIL experiences maybe captured, analysed and interpreted systematically. These perspectives may contribute to a better understanding of CLIL and reflective practice in the teacher education programme. It is this that the study described in Part II of this thesis aims to do.

Part II

The Study

Chapter 4.

Design and Methodology of the Study

Introduction

This chapter begins with a description of the purpose of the research which includes the special circumstances in which the study came about, and the aims and research question which it sets out to answer. This is followed by a rationale for the choice of research paradigm, qualitative research, and within that, case study, as the methodological approach. The type of case study is identified and its boundaries explained. These include the main units of analysis, the three teachers, their teaching contexts, as well as the context of the seminar programme at FLUP, and the three phases of the study: Pre-action, Action, and Post-action. Opportunities and tools used to collect data are then described. The final section explains how the data were treated and analysed along two dimensions of reflection: the content and types of reflection.

1. Purpose of the study

It is important to begin this chapter by describing the circumstances in which the study came about which have influenced its research design and methodology. The study is situated within the practicum year of the Masters in Teaching English and another Foreign Language in Basic Education (MEIB) in the academic year 2010-2011. Included in the student cohort for this year were three experienced primary English language teachers who had entered the second year of the Masters degree having obtained equivalent qualifications from their previous studies in the Curso de Especialização em Ensino de Inglês e Alemão no 3º Ciclo e Secundário[23]. The author was responsible for the supervision of the practicum of these teachers as well as the provision of seminars at FLUP as part of the pre-service teacher education programme within the Masters degree. These three teachers are the main units of analysis in this study.

The presence of these teachers in this second year of the Masters programme presented both a dilemma and an opportunity. The teachers had amassed a considerable amount of experience as primary English language teachers and had also written coursebooks for English language teaching in primary schools. The challenge the author was faced with was devising ways in which the Masters degree could contribute to their professional

[23] The Curso de Especialização em Ensino de Inglês e Alemão no 3º Ciclo e Secundário was required to enter the teaching profession in Portugal before the Bologna agreement and the introduction of Masters degrees in teaching foreign languages.

development. As experimentation is central to the model of English language teacher education that is being nurtured at FLUP, it was decided that these teachers would experiment with a new educational approach during their practicum. They were to set up and conduct CLIL lessons in the primary schools where they were working. In a preliminary meeting with the teachers in July prior to the onset of the new academic year, it was revealed that none of them had ever engaged in CLIL teaching nor did they know anything about it. It was suggested they read about CLIL during the summer holidays. The book, 'Content and Language Integrated Learning', (Coyle, Hood and Marsh, 2010) the most recent publication about CLIL at the time, was recommended.

The author was also faced with the further challenge of developing a teacher education programme that would provide the guidance and support the teachers would need during their CLIL experience. This challenge also afforded the author the opportunity to further investigate the perspectives of teachers carrying out CLIL in primary contexts over a longer period of time (an academic year). The CLIL experiments of the primary English language teachers in the STEPS (Support for Teaching English in Primary Schools) project undertaken in the academic year 2008 - 2009, and those of two student-teachers of the Masters cohort of the academic year 2009 - 2010, had provided only limited evidence of teachers' perspectives as experiences were, in the majority of cases, of single lessons. Obtaining the perspectives of teachers would require them to be involved in systematic reflective practice. This would be done within the reflective model of English language teacher education previously established at FLUP. This model would need to be adapted to incorporate CLIL. The study would thus serve the dual purpose of developing reflection and reflective practices within the model, and deepening knowledge about a new educational approach, CLIL, in practice within the contexts of the primary schools in which the teachers carried out their practicum. CLIL would function as a catalyst for reflection which would be systematically monitored before, during and at the end of the teachers' CLIL experiences. Richards (2003: xix) acknowledges this form of teacher preparation when he says that "[t]he integration of research into teacher education programmes at all levels is an encouraging endorsement of the extent to which teaching is an exploratory activity, drawing strength from an understanding of the educational and social world it inhabits". Teacher perspectives are an important contribution to the knowledge base of teacher education especially when

these are related to experimentation with new practices. They help to construct new knowledge about practice.

1.1. Aims and research question

The study focuses on reflection and CLIL, and explores them simultaneously. It has the following aims:

1. To develop an understanding of CLIL as taught by English language teachers in primary school contexts;
2. To develop an understanding of reflection and the reflective practices of teachers when experimenting with a new educational approach;
3. To apply the above to improving the reflective model of the English language teacher education programme at FLUP.

These aims relate to “new understandings and appreciations” (Boud *et al.*, 1985: 19) which reflective practice may bring about with regard to, and as a result of, CLIL. The aims are indicative of a process of learning and development within and for teacher education.

The study is anchored in the research question below which has helped determine its focus and course of action.

1. What are the perspectives of teachers during their CLIL experience?
    a) What do the teachers reflect on during their CLIL experience?
    b) What types of reflection do they engage in?
    c) Do the foci and types of reflection change over time?

2. Research paradigm

‘Listening’ to the teachers’ voices is central to this study. These voices, revealed in both written and spoken forms, provide evidence of their perspectives and changes in them brought about by reflection over time. The study involves identifying emergent themes and patterns within perspectives, and an analysis and interpretation of these within the unique contexts in which they came about. This contributes to a deeper

understanding of the main object of study – CLIL as a catalyst for developing reflective practice. Holliday (2002: 5-6) explains the role of interpretation in qualitative research:

> It maintains that we can explore, catch glimpses, illuminate and then try to interpret bits of reality. Interpretation is as far as we can go. This places less of a burden of proof on qualitative research, which instead builds gradual pictures. The pictures are themselves only interpretations – approximations – basic attempts to represent what is in fact a much more complex reality – paintings that represent our own impressions rather than photographs of what is 'really' there. They are created by collecting a number of instances of social life.

This study attempts to shed light on the complex issue of teachers' reflections. It is 'interpretation on interpretation' in the sense of understanding how others understand CLIL in practice. The teachers' voices in this study make it compelling. Miles and Huberman (1994: 1) recognise the power of such "words" when they state that they are "more convincing to a reader – another researcher, a policymaker, a practitioner – than pages of summarized numbers". The study combines elements of the aims of study juxtaposed in Stake's (2000: 21) comment that "[w]hen explanation, propositional knowledge and law are the aims of an inquiry, the case study will often be at a disadvantage. When the aims are understanding, extension of experience and increase in conviction in that which is known, the disadvantage disappears." 'Understanding' in this study is of CLIL and reflection. This understanding is brought about through cycles of reflection initiated at Faculty and undergone by all participants within a reflective model of teacher education; 'extension of experience' refers to the teachers' and author's experimentation with CLIL and their co-construction of knowledge about it, as well as (in the case of the author) teacher education for it; and 'increase in conviction in that which is known' can refer to the author's belief in reflection and reflective practices as essential in teacher education programmes, and CLIL as a catalyst with the potential to bring about change.

It can be said that the broad paradigm of this study is qualitative research or 'qualitative inquiry'. Richards (2003: 9) favours the term "inquiry" instead of "research" which he suggests "sits more comfortably with the broader notion of personal inquiry and discovery". This study embraces these concepts and seeks to facilitate processes which lead to them.

A very comprehensive definition of qualitative research in which the characteristics of this study may be identified is that of Denzin and Lincoln (1994: 2):

> Qualitative research is multimethod in focus, involving an interpretative, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical materials – case study, personal experience, introspective, life story, interview, observational, historical, interactional, and visual texts – that describe routine and problematic moments and meanings in individuals' lives. Accordingly, qualitative researchers deploy a wide range of interconnected methods, hoping always to get a better fix on the subject matter at hand. (Denzin and Lincoln, 1994: 2).

These characteristics will be further explored in the subsequent sections of this chapter. Qualitative research is frequently contrasted with quantitative research (see Holliday, 2002: 6; Richards, 2003: 8-11 for comprehensive summaries of these differences). This is often done so from the perspective of trying to prove the worth of the qualitative paradigm against the more established, numerical, large-scale, statistically-driven quantitative paradigm from which generalisations may be established. However, it is qualitative research which allows for complexity to be surfaced and interpreted, and a strong sense of reality to be gained, which is appropriate for this study. Qualitative research leads to "thick descriptions" (Miles and Huberman, 1994: 10) from which other practitioners may gain insights which is where the inherent value of this type of research lies. It embraces a number of traditions, each drawing on specific features of the paradigm (see Richards, 2003: 13-28 for details of seven core traditions). It is the tradition of Case Study which best suits the study of this thesis.

4. Case study

In Chapter 2 it was mentioned that CLIL is a flexible educational approach, and that generalisations from studies about it are difficult to come by owing to the variety of models and contexts in which it takes place. It could be said that each CLIL context represents a unique case study. In many such cases CLIL will have begun as an experiment and will probably have drawn on features of other such experiences within or outside the national context in which it takes place, and/or possibly the literature which pertains to the core features of the educational approach and the principles to

which it adheres. This study follows similar lines. As it attempts to understand more about how CLIL unfolds in practice, it can be considered a type of case study, too, unique in its contexts, subjects and complexity.

At this point, it is important to establish what is meant by the term 'case study' and what aligns the study described in this thesis with this term. A single, precise definition of a case study is not easily arrived at. Its various labels in the literature reflect the viewpoints from which it is seen. These are as an "approach" (Wallace, 1998: 160), "method" (Yin, 1994: xiii; Stake, 2000: 19), "strategy" (Yin, 1994: 1), and even "paradigm" (see Gomm *et al.*, 2003: 3-7 for an overview of the distinction between 'method' and 'paradigm' with regard to case studies). In this study, where there is an object of study (CLIL through the process of reflection), and units of analysis (the teachers), case study is seen as a method. Adelman *et al*. (1976) cited in Nunan, (1992: 75) refer to case study as the study of an "instance of action", and Bell, (2005: 10) as "free-standing exercises". Gomm *et al*. (2000: 3) suggest that arriving at a clear definition is difficult:

> In one sense all research is case study: there is always some unit, or set of units, in relation to which data are collected and/or analysed. Usually, though, the term 'case study' is employed to identify a specific form of enquiry; notably, one which contrasts with two other influential kinds of social research: the experiment and the social survey. And we can use these contrasts to mark the boundaries of the currently accepted meaning of the term; though a range of dimensions is involved, so that the meaning is fuzzy-edged.

However, there are a number of common features of case studies in descriptions in the literature. These are that case study research usually focuses on a small number of cases, or even on only one, in great depth, in naturalistic settings and with the intention of developing further understanding of the case (Gomm *et al*., 2000: 3; Yin, 1994: 2; Wallace, 1998: 161; Bell, 2005: 10; Miles and Huberman, 1994: 25; Nunan, 1992: 76; McDonough and McDonough, 1997: 205). Case studies usually have 'boundaries' within which they occur (Miles and Huberman, 1994: 25; McDonough and McDonough, 1997: 205; Wallace, 1998: 164).

There is, however, a considerable degree of variation in the form that a case study can take. Gomm *et al*. (2000: 3-4) consolidate this variation into five points: "in the number

of cases studied, and the role of comparison; in how detailed the case studies are; in the size of the case(s) dealt with; in the extent to which researchers document the context of the case, in terms of the wider society and/or historically; in the extent to which they restrict themselves to description and explanation, or engage in evaluation and prescription".

Other authors focus on the variation in the purposes of case studies. Wallace (1998: 164) states the aims of case studies as "solving problems", "applying theories to practice", "generating hypotheses" and "providing illustrations". Yin (1994: 1) says that case studies can be "explanatory", "exploratory" and "descriptive". Stake (1995) cited in McDonough and McDonough (1997:207) distinguishes between further types of case study, "the intrinsic" (interest is in the case for its own sake), "instrumental" (selected to help in the understanding of something else) and "the collective" (coordinating data from several people/institutions). Thus, case studies are broad-ranging in form and purpose. This makes them attractive as a research strategy and, as Wallace (1998: 161) suggests, "more accessible" to all types of researcher including teachers carrying out action research. This is a point he emphasises:

> Action researchers are usually interested in their own unique situation: *their* students; *their* lessons; *their* classes; and so on. The *specific focus* of the case study therefore becomes a positive advantage for action researchers, since it may meet their professional needs better than more traditional empirical research studies relating to large target populations. (*Ibid.*: 161).

In this study, the author and the teachers are action researchers in that each is involved in investigating and improving their teaching through cycles of planning, acting, observing and reflecting (Kemmis and McTaggart (1988: 11).

The accessibility of case studies is echoed by Stake (2000: 19) who further merits them, particularly those about people, as being "down-to-earth and attention-holding" and "epistemologically in harmony with the reader's experience and thus to that person a natural basis for generalization". Hence readers of case studies may be able to relate to them by means of personal experience or intrigue, more so perhaps than statistical analysis in research undertaken outside and about, as opposed to within and for

classroom practice. McDonough and McDonough (1997: 212) emphasise the importance of the case study to teachers' everyday practice:

> Teachers study cases to enhance their own understanding; to share that understanding with others who may then carry out parallel work of their own; perhaps to change their teaching methodology; and sometimes to collaborate with a researcher, because teacher and researcher studies should be complementary not incomparable. (McDonough and McDonough, 1997: 212).

In this case study, the author is enhancing her understanding of reflection and CLIL in practice. Sharing the results of this study with others may lead them to experiment with CLIL and/or to further research partnerships involving faculty and schools.

Frequently cited in the literature (see for example Nunan, 1992: 78; Cohen and Manion, 1994: 123; McDonough and McDonough, 1997: 217) are the advantages of case studies as outlined by Adelman *et al*. (1980). These are that:

1. Case study data is 'strong in reality'.
2. Cases studies allow generalizations either about an instance, or from an instance to a class.
3. They recognize the complexity of 'social truths' and alternative interpretation.
4. They can form an archive of descriptive material available for reinterpretation by others.
5. They are 'steps to action' (for staff/institutional development; for formative evaluation).
6. They present research in an accessible form.

(Adapted from Cohen and Manion, 1994: 123)

Despite these positive features, the case study as a research method has come under attack. Case studies are often unfavourably compared with traditional empirical research for lacking in rigour, ability to confirm or create theory and produce conclusions which are generalisable. However, and in the same breath as pointing out their 'weaknesses' as not being scientifically rigorous forms of enquiry, many authors defend case studies on precisely the same grounds (Wallace, 1998: 160; Yin, 1994: xiii; Stake, 2000: 19; Lincoln and Guba, 2000: 27).

A frequently mentioned criticism is the lack of generalisabilty of case studies, since they often deal with unique contexts, the results of which may not be easily

transferrable. It is said that the unique nature of small-scale case studies does not allow for firm conclusions or generalisations to take place. However, collectively, case studies can make a contribution by generating theories and providing illustrations (McDonough and McDonough, 1997: 204; Wallace 1998: 165). The criticism that it is not possible to generalise theory or practice from a single case study is challenged by Yin (1994: 10-11) who argues that this depends on the researcher's goal which in case study research is usually to investigate single or multiple units of analysis in depth which can relate to theoretical propositions but not with the intention of producing statistics.

The attention to detail in many case studies allows for what Stake (2000: 22) terms "naturalistic generalization". He commends the attributes and application of this type of generalisation:

> Generalizations may not be all that despicable, but particularization does deserve praise. To know particulars fleetingly of course is to know next to nothing. What becomes useful understanding is a full and thorough knowledge of the particular, recognizing it also in new and foreign contexts.
>
> That knowledge is a form of generalization too, not scientific induction but *naturalistic generalization,* arrived at by recognizing the similarities of objects and issues in and out of context and by sensing the natural covariations of happenings. To generalize this way is to be both intuitive and empirical, and not idiotic. (Stake, 2000: 22).

Such generalisations are very much a part of reflective practice where teachers are drawn to mulling over the behaviour observed in their classrooms and their own action. If these experiences are shared with other teachers in similar contexts, it is likely that they too will benefit from them. Lincoln and Guba (2000: 36) remind us of the strength of the case study in its ability to reach others. They say that "if you want people to understand better than they otherwise might, provide them information in the form in which they usually experience it. They will be able, both tacitly and propositionally, to derive naturalistic generalizations that will prove useful extensions of their understandings". Bassey, (1981: 85) cited in Bell, (2005: 11), prefers the term "relatability" in the sense of other practitioners being able to identify with or relate to the details of the case with regard to "decision making" in their own context. This implies practical application which may be a form of validating the case by replicating some aspect of it elsewhere. The study undertaken by the author may not be entirely

relatable to teachers in other contexts in Portugal as CLIL is not prevalent. However, primary English language teachers in Portugal may identify with the teachers of this study and their school contexts, benefit from the knowledge generated by their experience, and see in their own schools the possibility of experimenting with the CLIL approach.

3. Boundaries of the current study

The case study described in this thesis can be termed a "multiple-case study" (Yin, 1994: 21) with each teacher considered an individual case. The teachers conducted their CLIL projects in a different school context with unique and influential factors which affected their practice. This contributes to the complexity of the study. It also allows for separate exploration and interpretation of cases as well as cross-case analysis given that the core features of the teacher education programme (seminars and reflective model) and CLIL project requirements were the same for all three teachers.

It has previously been mentioned that one of the common characteristics of case studies is that they are 'bounded systems'. It is the boundaries of the case which keep it in focus and enable a rich description of it to be obtained. Stake (2000: 23) comments on the necessity for case studies to keep within their boundaries:

> It is distinctive in the first place by giving great prominence to what is and what is not 'the case' – the boundaries are kept in focus. What is happening and deemed important within those boundaries (the emic) is considered vital and usually determines what the study is about, as contrasted with other kinds of studies where hypotheses or issues previously targeted by investigators (the etic) usually determine the content of the study.

To this he adds a cautionary word, "The case study, however, proliferates rather than narrows. One is left with more to pay attention to rather than less. The case study attends to the idiosyncratic more than to the pervasive" (*Ibid.:* 24). Broad boundary definitions are helpful when determining those of specific case studies. These relate to units of analysis, context, and time (see Miles and Huberman, 1994: 25-27; Yin, 1994: 19-52 for details of these boundaries). The boundaries of this multiple case study are summarised in Table 2 below. The boundaries were determined both by the author and the contexts in which the teachers conducted their teaching practice. Thus, there were

varying degrees of control within the study. The boundaries determined by the author relate to the teacher education programme, the requirements of the CLIL projects and the time allocated to the study. Each school context presented unique conditions at the operational level for the realisation of the teachers' CLIL projects. These particular conditions were among many aspects which made up the larger holistic picture of each context over which the author had less control.

<table>
<tr><td>Object of study</td><td>CLIL as a catalyst for developing reflective practice</td></tr>
<tr><td>Units of analysis</td><td>Teacher C
Teacher CD
Teacher R</td></tr>
<tr><td>Contexts</td><td>School C
School CD
School R
University (seminars)</td></tr>
<tr><td>Specific requirements of the CLIL projects</td><td>to introduce CLIL to the school community;
to teach CLIL lessons with a 3rd year primary class;
to teach CLIL lessons within the generalist teacher's class time with the generalist teacher present;
to use the content of the primary curriculum (namely "Estudo do Meio");
to negotiate the lesson content with the primary generalist teacher;
to teach three CLIL lesson sequences;
to produce lesson plans and materials according to the 4Cs framework.</td></tr>
<tr><td>Time</td><td>One academic year September 2010 – June 2011
Three phases of the study:
Pre-action
Action (CLIL teaching)
Post-action</td></tr>
</table>

Table 2. Boundaries of the study

In the context of the university seminars, more control was exercised by the author in terms of organisation of seminar content. Both contexts can be said to be naturalistic in

that they represented worlds of work and study. The author's involvement in these contexts encompassed the roles of teacher educator and supervisor, and included laying the foundations for reflective practice, setting it into motion and sustaining the momentum during the academic year. In addition to this, the author was also a practitioner-researcher conducting the study. Her close proximity to the subjects, their CLIL projects and contexts was inevitable and unavoidable.

The boundaries of the study are now described. For convenience, the teachers are described alongside their teaching contexts. This study focuses on three teachers who had returned to FLUP to up-grade their teaching qualifications to Masters level. They entered the second year of the Masters in Teaching English and another Foreign Language in Basic Education (MEIB) as they had obtained qualifications for courses which preceded this Masters, ("Licenciatura em Línguas e Literaturas Modernas – Variante Estudos Ingleses e Alemães – Ramo Educacional"; "Curso de Especialização em Ensino de Inglês e Alemão no 3º Ciclo e Secundário"). The second year of the Masters degree consists of the practicum in local schools and seminars at FLUP. For these teachers, the schools had to include a primary school and/or middle school ("1º and 2º ciclos") where English was being taught, as this was what their other teaching degrees did not incorporate and for which they were unable to obtain equivalent/transferrable marks. Their practicum would consist of English language teaching (ELT) and CLIL in primary schools. The main reason for including CLIL within the practicum of these teachers, all experienced in teaching English in primary schools, was to provide them with the opportunity to experiment with a new educational approach through which they would extend their professional development. Each of the teachers was expected to initiate and carry out a CLIL project in their primary school. Specific requirements of the CLIL projects were determined by the author in order to provide a framework and guide to action which would also allow a degree of flexibility within each teaching context.

3.1. Project requirements

To introduce CLIL to the school community

Before introducing CLIL into the schools it was necessary to make the school community aware of these intentions and the potential for CLIL. This would give both parents and teachers the opportunity to voice opinions, to clear doubts, reassure and

garner support. Stakeholder support, particularly that of parents, is crucial to the successful implementation of CLIL. Strategies were discussed as to how the school community could be introduced to CLIL in seminars at FLUP. The final decision as to how this was done was that of each teacher in consultation with the generalist teacher with whom the teacher would liaise during her CLIL project, since they were familiar with the school community.

To teach CLIL lessons with a 3rd year primary class

Third year classes were selected as it was felt that younger children may prove too challenging for such an experiment. If the children had been regularly attending English language lessons offered by the schools as part of the Ministry of Education's extra-curricular enrichment programme, (commonly referred to as the AECs programme[24] which since 2005 included English language), they would have had two years of English and thus sensitised to exposure to the language in the school context, and would have begun developing basic interpersonal communicative competence (BICS). Older children in the fourth year of primary school were not considered as they would be undertaking national exams in Portuguese and Maths, the preparation for which would take up a lot of class time. In addition, and with particular regard to the circumstances of contexts in which the three teachers were working, third year classes were the level that each teacher had access to.

To teach CLIL lessons within the generalist teacher's class time with the generalist teacher present

Conducting the CLIL lessons in the generalist teacher's time and in her presence would provide a number of assurances: coherence in the sequencing of the content covered by both the CLIL teacher and the generalist; a 'monitoring effect' with regard to the children's progress in learning, behavioural patterns of which the generalist would have a better idea, and discipline; the seriousness of the project as it is taking place in normal curricular time and not in that of the AECs which is usually at the end of the school day, detached from the curriculum; parental support given the trust placed in the generalist teacher to be part of a quality endeavour; and a secure teaching/learning environment owing to the children's familiarity with the classroom and the generalist teacher. The

[24] AECs: Atividades de Enriquecimento Curricular

responsibility for giving the CLIL lessons would be that of the CLIL teacher and not the generalist teacher. The generalist teacher would not be directly involved in the lesson, but would be an observer. Children would be informed in advance that the CLIL teacher would give the lesson in English.

To use the content of the primary curriculum (namely "Estudo do Meio")

The aims of the Portuguese national curriculum had to be adhered to with regard to content and learning competences, skills and understanding. It was felt that the broad area of Social Studies ("Estudo do Meio") offered a wide range of choice with regard to the content of the CLIL projects. The exact content area selected would not be repeated in Portuguese, nor would a rehearsal of the content and key concepts in the mother-tongue be given.

To negotiate the lesson content with the primary generalist teacher

Successful CLIL projects are those in which content and language teachers work together exchanging ideas about content, methodology and materials. The generalist teacher is more aware of which type of content children find easy or difficult to assimilate in the mother-tongue. For this reason she may give important advice as to which areas are less likely to cause difficulty for the CLIL teacher and learners especially early on in the project where it is important for everyone to feel comfortable and confident, and to get off to a good start.

To teach three CLIL lesson sequences

Three lessons sequences were considered important so as to provide ample opportunities to reflect within and between sequences and allow for progress to be made. The number of lessons within each sequence of CLIL lessons could vary depending on the content chosen, amount of time available and preferences of both generalist and CLIL teacher. A minimum of three lessons of 45 – 90 minutes per sequence was suggested.

To produce lesson plans and materials according to the 4Cs framework

This was not so much a requirement as a useful framework for the teachers to plan their work which could be discussed pre- and post-lesson.

3.2. Teachers and their teaching contexts

The three teachers are the main units of analysis of this research. These teachers are referred to as Teacher C, R and CD, and as 'the CLIL teachers', in this study. It is important to point out that there are a few similarities among them. All three were women in their early to mid-thirties at the time of the study. All had obtained a degree from FLUP in modern languages and literature in English and German which incorporated methodological disciplines for the teaching of these languages at lower and upper secondary school levels, as well as a one-year practicum in a school in the Porto area which they all completed in 2001. Since obtaining their degrees, they had undertaken various teacher development courses in the teaching of English to young learners. They each had between 10 – 12 years experience of teaching young learners. All had been involved in writing English language coursebooks for this level, two of whom had been involved in joint collaborations. All three teachers knew each other well. They all shared the same motivation for returning to FLUP which was to up-grade their teaching qualifications to Masters level within the area of teaching foreign languages in the cycles of basic education which covered primary to lower secondary. It was the primary level, in particular, for which they wanted to have this Masters. This would contribute to a recognition of their many years of experience for which they did not have a higher professional qualification. Few tertiary institutions were offering such vocational Masters degrees, and positions for teaching English in primary schools were becoming more competitive. The English language level of all three teachers was in accordance with Level C of the Common European Framework of Reference. This is the level that students attending Masters in teaching foreign languages are expected to have obtained before admission to the course.

At the start of the academic year 2010 – 2011, each teacher had obtained a teaching position within a different cluster of schools on the outskirts of Porto. Teacher CD and Teacher R had positions teaching English in primary schools as part of the Ministry of Education's AECs programme. These teachers had been recruited by local town councils. Teacher C had obtained an English language teaching position within a middle and lower secondary school. The director of each cluster of schools in which the teachers were working was contacted by FLUP in order to obtain permission for the teachers to conduct their practicum in the schools in which they had obtained teaching positions (and carry out small-scale CLIL projects) and for the author to supervise this

practice. The practicum would consist of teaching both English language lessons and CLIL lessons. Teacher C obtained permission to carry out her CLIL project within a primary school within the cluster where she had obtained a position in a middle and lower secondary school. This was facilitated by the fact that in previous years she had taught English in this primary school. In addition, permission was requested from the director of each school cluster for the author to film the teachers' lessons for her doctoral research. All three teachers requested permission from the primary schools to carry out their CLIL projects in negotiation with and in the presence of a primary generalist teacher. Teachers, C, CD and R signed a research project agreement (see Appendix 6) drawn up by the author requesting collaboration and permission to use data gathered during their practicum related to CLIL for research purposes. In all of the above instances where requests were made, permission was granted.

Further details specific to each teacher as well as a brief description of their teaching contexts are provided below. The teachers were asked to check this description and to provide additional information about themselves and their school contexts to support these profiles if they felt it necessary. Such reviewing by participants in case studies is part of a "validating procedure" which adds "construct validity" to the research. (Yin, 1994: 144-145). In order to avoid confusion, the schools in which the teachers taught will be referred to using the same initial as that given to each teacher. Thus, Teacher C taught in School C. All three schools were state schools.

3.2.1. Teacher C

In addition to her degree in teaching English and German, Teacher C had also obtained a Masters degree in Anglo-American Studies from FLUP in 2004. She had co-authored a series of English language coursebooks for young learners with Teacher R, and coursebooks for older learners. She had 10 years' teaching experience. Teacher C was not officially teaching English in primary schools at the onset of the academic year having been placed by the Ministry of Education in a middle and lower secondary school just outside Porto. Here she had been given a full time-table teaching fifth, seventh and eighth year students. She had been teaching within the same cluster of schools for four years. Teacher C had, in previous years, taught in a primary school which belonged to the same cluster. She was able to obtain permission from the director of the cluster of schools to carry out her CLIL project in this primary school. Thus, her

practicum constituted teaching English in a middle/lower secondary school and CLIL in the primary school within the same school cluster.

Context: School C

School C forms part of a cluster of schools located in an area south of Porto considered by Teacher C to be a lower-middle socio-economic catchment area. It is one of nine primary schools. The school is situated in a rural town. The school building is modern and consists of six classrooms on two floors. The classrooms are large and equipped with a laptop and a desktop computer, projector, interactive whiteboard and internet access. The school has its own kitchen and canteen. There are also two prefabricated classrooms outside the main building. These are where extra-curricular activities including English take place. The school is surrounded by a large playground. There were 180 children in the school at the time of the study. Owing to the number of children to classroom ratio, the school operates a shift system whereby children attend classes either in the morning or afternoon. The extra-curricular activities such as English operate around these shifts. The classroom were the CLIL lessons took place was the children's regular classroom. It was large with plenty of display space and paired desks arranged in rows.

English language teaching

English language lessons take place in the school and at the time of the study were being given other teachers as part of the AECs programme. Teacher C was aware that the English language teachers were using a coursebook and following the Ministry of Education's guidelines on primary English language teaching (Orientações programáticas), but felt that they were also given a lot of flexibility as to how they went about this and that they could choose what they wanted to teach. When she was an English language teacher at this school, she used a coursebook and a lot of games, songs and role-plays. According to Teacher C, once in a while she taught CLIL, as in the coursebook there were some activities related to academic school content. According to Teacher C, there was a good relationship between the English language teachers and generalist teacher though the main focus of their collaboration was for end-of-term shows. Despite many efforts to secure a meeting with the English language teacher of the children involved in Teacher C's CLIL project, the author was unable to meet her.

CLIL project class

Teacher C collaborated with the generalist teacher of a 3rd year class whom she knew from her previous experiences of teaching at this school. According to Teacher C, the generalist teacher was very strict and well-organised and had almost 30 years experience of primary teaching. Teacher C had taught English language to this same class of children for the previous two years so was familiar with them. There were 20 students in the class, twelve boys and eight girls. All were Portuguese. The children attended lessons in the morning shift. Seventeen of the children attended the extra-curricular activities including English in the afternoon. All had had English language lessons since their first year at primary school, though three dropped out in the previous year. Teacher C described the children as highly motivated towards learning English which they found fun and enjoyable. They particularly loved songs and games.

Teacher C negotiated to conduct short sequences of CLIL lessons using the content of the national primary curriculum for Social Studies ("Estudo do Meio") during the generalist teacher's class time. A plan of what content Teacher C would teach was drawn up by both teachers. The plan covered three terms of the academic year. It consisted of the content themes, corresponding references to pages in the Social Studies coursebook, and the approximate amount of time allocated. Ten areas of content were scheduled for the academic year. The approximate time allocated was 19.5 hours. As this was not part of her official timetable, Teacher C would not be paid for these lessons.

Introduction of CLIL project to school

The CLIL project was presented to the parents of the children of this class in a meeting held at the beginning of the academic year. Teacher C gave a powerpoint presentation outlining the importance of English in the world which promoted CLIL as a new and effective way of learning it. In addition, she gave parents an article about CLIL in Europe (see Appendix 7). Parents were also told that the generalist teacher would always be present during these lessons.

3.2.2. Teacher R

Teacher R had twelve years' experience of teaching young learners. She had co-authored a series of English language coursebooks for young learners with Teacher C.

At the time of the study she had an 18 hour timetable in one primary school teaching English. She had four classes of 3rd year students and two of 4th year students. This was the fourth year that she was teaching in this school. In addition, she also taught English in a kindergarden. Her practicum consisted of teaching English across these primary classes and CLIL in one primary class.

Context: School R

School R forms part of a cluster of schools located in an area north of Porto. It is situated in an urban area. According to Teacher R, the catchment area was of a low to middle socio-economic level. New school premises were being built at the time of the study. The temporary premises consisted of seventeen pre-fabricated classrooms. The classrooms were small and equipped with the basic essentials for teaching – a whiteboard, minimal storage space and display areas. They did not contain computers. There was a staff room, a library containing technological equipment such as computers, television, DVD player and two interactive whiteboards, a canteen, a music room and a small gymnasium. However, there was no Internet access or printers. There was a small playground. Children tended to congregate in the areas near the pre-fabricated classrooms. This area could get quite congested during break-time causing noise levels to escalate. The number of children at the school was 400. The school operated a single timetable for all students – from 09.00 to 17.30. The classroom were the CLIL lessons took place was the children's regular classroom. It was small and desks were arranged in a U-shape with some desks in the centre of the U.

English language teaching

At School R there were two English Language teachers and within the school cluster there were a total of five. According to Teacher R, there were regular meetings of English language teachers within the cluster of primary schools with the coordinator of the 2nd cycle schools. In addition, meetings of all teachers, English language and generalists, were held regularly at each primary school. There is a good supply of English language teaching materials at the primary school which includes resource books, CDs and storybooks. A coursebook series was used to teach English. Teacher R taught two different levels, 3rd and 4th year at this school. She described herself as a well-organised teacher who planned her lessons with great care and consideration of appropriate models and teaching methods (such as TPR and TBL), and aware of the

need to articulate objectives, content, strategies and evaluation. She believed she also tried to take into account the students' interests and needs, appeal to their emotions and learning styles, stimulate their active development, imagination and creativity. She planned activities that included games, movement and interaction, songs and rhymes, stories and project work. As far as the teaching/learning environment was concerned Teacher R tried to maintain a relaxed but disciplined atmosphere. All the English language classes taught by Teacher R, with the exception of the CLIL class, used a coursebook which she frequently supplemented with her own materials and audiovisuals to enrich the lessons and motivate students. She also used portfolios for children's work.

CLIL project class

The class that Teacher R chose to do her CLIL project with was a third year class consisting of twenty-four children of which ten were boys and fourteen were girls. All children were Portuguese. Almost all students had been having English language lessons with Teacher R since their first year at primary school. In this current year there was one student who had never attended English language lessons before and another that was not currently attending. This was the only class that Teacher R had thought possible to conduct her CLIL project and the only generalist teacher in the school who had expressed an interest. The main reason for this was related to the methodological approach adopted by the generalist teacher of this class. Teacher R described the generalist teacher as being very experienced and at the top of her career with more than 30 years experience. Though following the national curriculum attainment targets for skills, understanding and competences, the generalist teacher chose her own themes through which to do this and did not use coursebooks for Maths, Portuguese or Social Studies. Her thematic approach allowed for integration of all subject areas. Children develop their own portfolio of work over the academic year. Teacher R had worked alongside this generalist teacher in previous years adopting a cross-curricular approach to teaching English language which was compatible with the generalist teacher’s own approach. This involved reinforcing content from the primary curriculum in the English language lessons. This class was described by Teacher R as a complicated one where lessons were often stopped to reinforce rules for appropriate behaviour.

Teacher R negotiated with the generalist teacher of this third year class to teach two whole themes of Social Studies over the entire academic year. These themes were 'Animal Life' and 'Growing plants' which would only be taught through English by Teacher R in the time allocated for English language lessons in the same classroom where the generalist teacher taught, but not in the generalist teacher's time. This gave the generalist teacher more time to work with the children on the other areas of the curriculum. The generalist teacher would, however, be present during the CLIL lessons. A plan was drawn up between both teachers and Teacher R developed sequences of language and CLIL lessons for each theme across the academic year (for a sample from Teacher R's long-term planning see Appendix 8).

Introduction of CLIL project to school

The CLIL project was presented to the parents of the children of this class in a meeting at the beginning of the academic year. Teacher R provided parents with information about CLIL in the form of a short text which was a shortened version of that used by Teacher C for the same purpose. According to Teacher R, as the students were used to working with different activities, tasks and a different methodology than the rest of the school, they were glad to know that the English classes were also going to be different. They understood they were going to work a whole topic from their curriculum in the English classes during the year.

3.2.3. Teacher CD

Teacher CD had twelve years' experience of teaching English to young learners. At the time of the study she was teaching English to eight classes across all four primary levels in two primary schools within the same cluster. Six of these classes were in School CD. Teacher CD had worked in this school for the previous two academic years.

Context: School CD

School CD is located in the east of Porto and is one of seven primary schools within the school cluster. According to Teacher CD it was a mainly middle level socio-economic catchment area. The area in which the primary school is situated is rural, but within a short distance of the urban centre. It is a small, modern school consisting of four classrooms on two floors. It is equipped with a library, computer room, gymnasium, playground, and its own canteen. Adjacent to the school are the old premises. It is here

that the AECs classes take place. There were 153 children in the school at the time of the study. The school timetable operates a morning and afternoon shift for teachers and children. The classroom were the CLIL lessons took place was the children's regular classroom. It was a large classroom with plenty of storage and display space. It was not the classroom where the English language lessons took place. These lessons were given in the old school adjacent to this building. Here Teacher CD had her own large classroom for English language lessons.

English language teaching

English language teaching is coordinated through the language department of the school cluster which consists of teachers from middle and third cycle schools. Meetings are organised once a term where issues related to the various school contexts and long and medium term planning are discussed. Teachers and children are provided with English language coursebooks. Teacher CD describes her teaching of young learners as that of a typical language teacher who uses a communicative approach where vocabulary is taught in context and there are plenty of opportunities for oral practice. She also follows the Ministry of Education guidelines ("Orientações Programáticas").

CLIL project class

The class that Teacher CD chose to do her CLIL project in was a third year class consisting of twenty-one children. She was the English language teacher of this class. However, only sixteen children, seven boys and nine girls, were attending the English language lessons. All of the children had had English language lessons in the first and second year at primary school and six since kindergarten. Teacher CD describes the children as excellent learners who were very curious, hardworking, motivated and participative. Teacher CD negotiated with the generalist teacher of this third year class to initially teach small CLIL sequences of Social Studies through English. Teacher CD described the generalist teacher as open-minded and always willing to help. She had between 15 to 20 years' experience. The CLIL lessons would take place in the generalist teacher's class time in her classroom. This was not part of CD's timetable at the school. Hence, she would not be paid.

Introduction of CLIL project to school

Teacher CD approached the director of the school for permission to conduct her CLIL project. The director helped Teacher CD choose the class and generalist teacher to work with. Teacher CD also had to write her own letter to the director of the school cluster requesting permission. This letter provided an outline of what CLIL is, its scope across Europe, the influence of the European Commission's MT + 2 initiative, advantages of CLIL for students, and how the project would be conducted. She made a specific request for lessons to take place in the generalist teacher's time given that not all students attended English language lessons at the school. Teacher CD then arranged a meeting with parents of the class she would teach her CLIL project in. At this meeting she showed them a powerpoint presentation which explained what CLIL was and what she intended to do with the students. She discussed some points or doubts parents had and asked for their permission to conduct the project to which they all signed their agreement.

3.2.4. Other participants

The generalist teachers and the classes of children with whom the three teachers worked were instrumental in the CLIL projects of the three teachers. The three teachers did not have mentors in their schools so the generalist teacher was their main support, and with whom they could talk about the children and their lessons. The generalists negotiated the content of Social Studies to be taught through English with the teachers. They also provided feedback on these lessons as they were present whilst they were being carried out.

The children in the classes selected for the CLIL projects were all in the third year at primary school. At the beginning of the academic year it was felt important to carry out a diagnostic test on the children in the CLIL classes and another third year class not involved in the CLIL projects within each school. The purpose of this was to determine the initial competences of the children in English at the start of the project and to compare them with their 'exit' competences at the end, and with the non-CLIL class with a special emphasis on oral output of their understanding of academic concepts in English. It was thought that the CLIL class would be better able to articulate this than the non-CLIL class and that their overall competence in the English language would be higher. A test was designed by the author which was a type of picture dictation

consisting of listening to instructions given in English by the CLIL teacher and interpreting them through drawing and adding words to a picture, as well as demonstrating understanding and ability to articulate this orally using the English language (see Appendix 9). This was divided into eight stages. The level of difficulty within the test increased with each stage from simple listening and responding through pointing, colouring and drawing, to responding to questions which require more higher order thinking and oral responses.

The test was carried out by the three teachers in their primary schools with their CLIL class and another class of the same year group that had English language lessons. In all classes, the teachers noted that the stage in the test related to concept checking (Stage 8) was the most difficult. The majority of children did not respond to questions asked. Where there were responses, these did demonstrate understanding but were either single-word answers in Portuguese or English or short sentences in Portuguese. There were slight variations in the means that the teachers approached the test. For example, Teacher C said she provided gestures during the 'Listen and draw' stage and did not ask some questions in the subsequent stages. The test needed further piloting and a more thorough standardising procedure determined among the teachers.

However, at this very preliminary stage, it was decided to abandon the idea of comparing CLIL and non-CLIL classes for the rest of the academic year. This decision was made for a number of reasons. The teachers of the CLIL and non-CLIL language lessons were not the same in two of the contexts, Schools C and CD, which made it difficult to control and describe input given to the non-CLIL classes; it was not known exactly how many CLIL sequences and how many lessons there would be per sequence at this stage. If the sequences of lessons were short, this may not have a significant effect on the linguistic or cognitive competence of students which would make any comparisons with non-CLIL groups difficult. It was also considered too much extra work for the teachers' already busy workload during their practicum.

3.3. University seminars for the CLIL teachers

This study also incorporates the context of the university, in particular the seminars which formed the teacher education programme for the three teachers. The seminar programme for student-teachers at FLUP usually consists of weekly 3-hour seminars

which alternate between the two language areas. Thus, the English language teaching seminar takes place every other week, alternating with the German teaching seminar, for example. However, the three teachers in this study had already done a post-graduate course in teaching English and German in the third cycle of compulsory education and secondary education some years ago and as German is not a language offered in primary or middle schools (1st or 2nd cycles), these teachers did not have seminars for this language. Instead they agreed to attend seminars for English language teaching every week at the faculty. These consisted of joint seminars with three other student-teachers of MEIB and occasionally those of MEIBS, as well as seminars just for them. The joint seminars were of two types – with the larger group consisting of MEIBS student-teachers these were generally about action research and with the MEIB group (three inexperienced student-teachers) the focus was on discussing the teaching of young learners. Here the three teachers of the study were able to offer advice about the latter, suggest activities and share materials. There were also dual CLIL-focused seminars for this group where films of lessons from previous years were viewed and analysed.

However, it was felt that these teachers constituted a specific group with different needs to those of the other student-teachers. These needs differed in the following way: they were experienced teachers of English to young learners whereas the other student-teachers had no experience of teaching; they did not have mentors in schools; and they did not have any prior experience of teaching in CLIL contexts. The experimental nature of their work demanded more specific guidance, attention and reflection. Seminars for them therefore served the purpose of providing input about CLIL theory and practice as well as reflecting on the teachers' CLIL experiences. These seminars were useful for providing feedback and comparisons of how their projects were going since they were not all together in any other circumstances. These were important opportunities for cross-case comparisons to be made since they were each in different schools implementing CLIL. In addition, they were also opportunities for pre-observation discussion and the distribution and completion of questionnaires to the teachers about their developing understanding of CLIL and their CLIL experience, as well as their other foreign language teaching experience.

An overview of the content and aims of the seminars for the three teachers is provided in Table 3 below.

SEMINAR CONTENT	AIMS
PRE-PHASE (September – November) • Preparing for CLIL; • Viewing/analysing CLIL lessons; • Features of CLIL lesson plans; • CLIL lessons vs. ELT lessons; • Supporting learning in CLIL lessons; • Task and materials design – balancing cognitive and linguistic demands; • Observing generalist teachers; instruction in the L1.	To introduce CLIL in theory; To consider core features of CLIL methodology; To consider teacher input and roles; learner involvement; To consider the methodological differences between CLIL and ELT; To identify scaffolding strategies for supporting learning; To consider how to introduce and set up CLIL projects in schools; To prepare teachers for teaching CLIL in their contexts; To design observation grids for observing generalists; To find out teachers' perspectives on their up-coming CLIL experience.
ACTION-PHASE (November – June) • Guest speaker from Catalonia: Workshops on EducTech tools and CLIL; • Planning next CLIL lessons; • The role of teachers' questions to promote thinking in lessons; • Scaffolding over a sequence of CLIL lessons; changing levels of scaffolding: linguistic and cognitive demands of tasks; • Analysis and interpretation of teachers' filmed lessons for degree of scaffolding; compatibility with lesson plans; teachers' questions; notable moments of learning; • Primary science experiments – analysis of concepts, materials, language and cognition; methodology and procedure in experiments; • Preparation for final lessons: assessing children at school.	To find out about teaching CLIL in other contexts; To support teachers during CLIL projects; To develop awareness of teachers' activity within and across lesson sequences; To provide further input on scaffolding strategies; To develop awareness of how to scaffold language and cognition; To consider other types of CLIL lesson; To consider features of tests for CLIL; To find out perspectives on CLIL during their experience.
POST-PHASE (May – June) • Concluding CLIL at school – deciding on presentations, questionnaires for parents; • Final reflection and feedback on CLIL projects; • Orientation for final written reflection.	To prepare for disseminating information about CLIL projects; To consider means of collecting stakeholder views; To find out teachers' perspectives on the whole CLIL experience; To find out what teachers thought of the teacher education programme.

Table 3. The seminar programme for CLIL teachers during the phases of the study

There were a total of 32 seminars during the academic year. Seventeen of these were exclusively for the three teachers of this study. The content of seminars for these teachers was a mixture of that which had been planned from the outset and that which came about as a result of their practice. These seminars were prepared once it was understood that a need for something specific had arisen. Thus, the seminar programme was constructed and re-constructed over the academic year.

3.4. Key phases of the study

The study was divided into three key phases: Pre-, Action-, and Post-phase. This allowed for a broad range of perspectives to be collected across the academic year and comparisons to be made within and between phases for each teacher as well as between teachers. This would enable the author to consider factors related to the effect of time on teachers' reflections, such as length of time and experienced gained, proximity of reflection to action, and changes in the foci of teachers' reflections over time. The Pre-phase was from September to November before teachers started teaching their CLIL lessons. This phase covered the introduction of CLIL to the school communities and the teachers' preparation for CLIL activity. This constituted reflection *for* action. The Action-phase was further divided into an early action phase and a late action phase in order to find out perspectives from first attempts at teaching CLIL and before the completion of the projects. Within this broad phase were cycles of reflective activity, *for*, *in* and *on* action as sequences of CLIL lessons were planned for, given and reflected on. This phase was from November to May. The Post-phase was after all lesson sequences had been given and no further CLIL activity was scheduled. In this phase reflection was *on* action and provided teachers with an opportunity to reflect and draw conclusions on the whole experience at a distance. This phase was in May - June.

4. Dimensions of reflection of the study

The study aims to develop an understanding CLIL and reflection. CLIL is considered the catalyst for reflection, and reflective practices are used to engage teachers in reflection about CLIL, thus developing understanding of both. In order to answer the research question of this study, specific foci were determined and incorporated into the design of data-gathering tools. These relate to the two dimensions of reflection mentioned in Chapter 3, namely content - what teachers reflected on, and the type of

reflection teachers engaged in when carrying out their CLIL projects. These are explained below in relation to the study.

4.1. Content - what teachers reflected on

The subjects of this study were three experienced primary English language teachers each teaching within a different school context. They had been given a new professional challenge – to set up and carry out short sequences of CLIL lessons with one class of third year primary school children. Given that this challenge was taking place within the practicum year of a Masters in Teaching English and another Foreign Language in Basic Education, and that CLIL was unknown to the teachers and the school communities where they were working, it was important to find out what the perspectives of these experienced foreign language teachers were with regard to their CLIL experience. Such perspectives would be important for developing a more in-depth understanding of CLIL and reflective practices as well as the development of the teacher education programme at FLUP. For these reasons, and to provide for as full a picture as possible within the boundaries of this study, eight broad areas of focus for reflection were determined. These foci are: Context; Understanding of CLIL; Methodology; CLIL vs. ELT; ELT for young learners; Learners; Teacher Competences; and Personal and Professional Development. The foci formed macro deductive categories for the organisation and analysis of the content of the teachers' reflections. Data-gathering tools were designed to stimulate reflection on these foci throughout the study.

4.2. Types of reflection

In this study it was not only important to find out the content of teachers' reflections, but also the type of reflection they engaged in when carrying out CLIL projects. This would help to develop the reflective model of teacher education at FLUP whilst it accommodated a new addition to the knowledge base of foreign language teacher education, CLIL. The review of the literature on studies about types of reflection in Chapter 3 revealed four broad types of reflection which the author labelled as follows:

Type 0: Descriptive/behavioural
Type 1: Descriptive/analytical
Type 2: Dialogic/interpretative
Type 3: Critical/transformatory

The main influence on the labels for reflection is the study of Hatton and Smith (1995) whose criteria for the identification of different types of reflective writing of student-teachers were: “descriptive writing”, “descriptive reflection”, “dialogic reflection”, and “critical reflection” (*Ibid*.: 48-49). The decision to add another descriptive term for each label is to provide an indication of the orientation towards a particular ‘behaviour’, ‘state of being’ or ‘action’ which would also account for different modes of reflecting – in written or spoken form and multiple data collection types (interview, questionnaire, lesson discussions, seminars, written reports etc). This is something that Lee (2005: 712) suggests is needed in order to value “multiple systematic aids” in qualitative research. Restricting analysis of reflection to written accounts would not take into consideration a range of preferences. In addition, unless otherwise instructed, teachers' may write reflections which include a large amount of description in order to contextualise and recall events and participants' action, which tend toward Type 0 reflection (see Hatton and Smith, 1995 for a discussion of academic writing and reflection types). Providing other means of reflecting may help to re-dress the balance of this tendency.

The author could not find a rubric which suited her research design. This prompted the development of a new one using the descriptions of the four types of reflection from Chapter 3 for the analysis of the types of reflection of the teachers in this study. Characteristics of each type of reflection are listed within the rubric as sets of descriptors (see Appendix 3). In the initial design process of the rubric, these were compiled in a single list. It became apparent during the piloting of the rubric that there were similarities in groupings of characteristics across each of the descriptions for the different types. These characteristics were then grouped under five headings by the author in order to facilitate the use of the rubric when comparing types of reflection in the data. The headings are: Discourse type; Rationale; Level of inquiry; Orientation (position of self); Views of teaching. It also became apparent during piloting the rubric that a single reflection would not necessarily be a pure form of any type of reflection and would likely contain elements of others which is why the labels are accompanied by the words “Elements of (…) plus:”. It is also indicative of a continuum from thought which is not reflective, (0) Descriptive/behavioural, to that which is increasingly more reflective and complex, (3) Critical/transformatory. An explanation of how the rubric was used as an analytical tool is provided later in this chapter.

5. Data-gathering opportunities

This study took place within a practicum which incorporates a reflective model of teacher education programme which utilizes a number of strategies and tools to promote, sustain, as well as document reflection. These are: observation tasks of generalist teachers/videos of CLIL lessons of student-teachers from previous years; seminar discussions; pre- and post observation discussions of lessons; lesson plans and materials; written reflections on lessons, the observation process and a global written reflection on the CLIL project. These incorporated different modes of reflection. The teachers reflected in spoken form and in writing, and both privately and together in seminars. This provided teachers with multiple ways of reflecting which would therefore appeal to a range of preferences and thus bring about as full a picture of reflections as possible. Despite also being encouraged to keep a diary/journal of their teaching practice, none of the teachers did. Most strategies and tools were routine and non-intrusive except for the audio recording of a seminar and post-lesson observation discussions which would not normally take place.

It should be said that the practicum and seminars of the Masters degree consist of work which is assessed. A written reflection on the observation process is a standard piece of assessed work for all student-teachers. The three teachers in this study had no mentor to observe, and observed the generalist teacher and themselves teaching through films of their lessons. A global written reflection on the CLIL project substituted a final report on the teaching practice as a whole. This was because the CLIL projects constituted the main focus of the practicum. Thus, both pieces of assessed work were very important to the Masters degree of these teachers. It could be argued that these reflections and others could have been contrived so as to provide as good a picture as possible of the CLIL projects, but as the author was present in almost all CLIL lessons, which were also filmed, she was able to check this. In addition, the teachers were mature and experienced, and understood the personal and professional value of experimenting with a new educational approach. They were encouraged to be open and honest in their reflections.

In addition to the procedures for gathering data outlined above, further data-gathering tools were designed for the purpose of this research. These were more intrusive and consisted of: filming the teachers CLIL lessons; questionnaires and interviews for the

teachers which were distributed and conducted during the three phases of the study. Thus, the teachers were carrying out a practicum which incorporated standard procedures of reflection and they were also informants in the research of the author.

The practicum of the three teachers generated other documents which can be used to support the main evidence in this study. These are a written reflection on the observation of the generalist teacher; lesson plans and materials; and the author's field notes made during the observation of lessons. All of these are regular features of the practicum. In addition, three structured interviews were conducted with generalist teachers over the course of the academic year in order to gain their perspective as observers and collaborators in the CLIL projects. Although not directly related to the research questions, all of the abovementioned documents provide for a richer interpretation of each case.

Below is a summary of data considered evidence and thus subject to analysis, as well as complementary evidence not subjected to this procedure:

Evidence subjected to analysis for content and types of reflection:

- Questionnaires for the three teachers
- Seminars at FLUP
- Written reflection on the observation process: the use of the films of lessons
- Audio-recorded post-lesson discussions
- Post-lesson written reflections of lessons
- Audio-recorded interview with each teacher
- Final written reflection on the CLIL project

Complementary evidence to provide for rich description of cases:

- Written reflection on the observation of the generalist teacher
- Lesson plans and materials for CLIL lessons and language lessons
- Author's field-notes of observed lessons and seminars
- Interviews with generalist teachers

The study thus generated a vast amount of qualitative data using a variety of means and procedures. It could be said to be "methodologically eclectic" (McDonough and McDonough, 1997: 207) or a "hybrid" (Nunan, 1992: 74) of methods which is quite

common in case studies where the interest is in phenomena which unfold in naturalistic settings. According to Yin (1994: 33) this also allows for “construct validity”. The variety of documents and procedures for obtaining them also serve to check the compatibility of teachers' reflections with the reality of their lesson plans, video-recorded lessons, and author’s field-notes. In this sense, they also provide valuable triangulation in a study where the author was the sole researcher.

6. Data-gathering tools: choice, design and administration

Data-gathering tools, their purpose and when they were administered are summarised in Table 4 below.

PHASE	PURPOSE/AIMS	DATA- GATHERING TOOLS
Pre-CLIL action September – November Reflection *for* action	To introduce CLIL in theory; For teachers to introduce and set up CLIL projects in their schools; To prepare teachers for teaching CLIL in their contexts; To find out teachers’ perspectives on their up-coming CLIL experience.	Questionnaire 1. (September) Questionnaire 2. (November)
Action phase November – June Cycles of reflection *for, in, on action*	To support teachers during their CLIL projects; To find out perspectives on CLIL during their experience; To monitor teachers’ CLIL activity over lesson sequences; To identify changes.	Seminar recording Post-observation discussions Post-lesson written reflections Written reflection on observation of videos of lessons Questionnaire 3. (January) Interview (January/February) Questionnaire 4. (April)
Post-CLIL June Reflection *on* action	To find out teachers’ perspectives on the whole CLIL experience; To find out what teachers’ thought of the teacher education programme.	Final written reflection (June) Questionnaire 5. (June) Questionnaire 6. (June)

Table 4. Key phases of the study, purpose and data-gathering tools

All data-gathering tools and data collected whether in spoken or written form was in English except for interviews with generalist teachers and parts of post-lesson discussion where these teachers were present. The reason for using English was that this was the medium of instruction in disciplines related to the English language teacher

education programme at FLUP including seminars for the practicum. The subjects of the study were experienced English language teachers who were considered to have a high level of competence in the language. However, it could also be argued that the use of English as a medium for reflection by teachers for whom it is not their mother-tongue is a limitation of the study as the teachers may have felt inhibited in expressing their thoughts and may well have spoken or written more had reflections been in their mother-tongue. This will be discussed later in the conclusions of the thesis. Details of each tool are provided below.

6.1. Questionnaires

Questionnaires are an easy and quick means of obtaining information about a range of things, be they personal facts or background information about teachers themselves, their knowledge, opinions, or beliefs (Wallace, 1998: 124; Nunan, 1992: 143). The decision to use questionnaires in this study was based on this practicality. In addition, they provide a type of standardisation as each respondent receives exactly the same set of questions at the same time (Selinger and Shohamy, 1989: 172).

During the course of this study, a total of six questionnaires were given to the three teachers. In all questionnaires, the subjects were asked to provide their name as this was important for cross-case comparison. The questionnaires were distributed over the period of one academic year in all key study phases: Pre-, Action- and Post-phase. They mostly consisted of open-ended questions so as to allow for a wider range of comments (Nunan, 1992: 145; Wallace, 1998: 135). Questionnaires which allow for this are a useful means of surfacing perspectives where these are not easily observed, such as "attitudes, motivation, and self-concepts" (Selinger and Shohamy, 1989: 172). The questions in each questionnaire are specifically focused on developing reflection on the specific foci which formed the deductive categories for analysis. In addition, each questionnaire has its own specific focus of reflection which corresponded to the particularities of the time of the teachers' practice.

Two questionnaires were administered in the Pre-phase. The first of these was on September 27th during a seminar at FLUP (see Appendix 10). By this stage, the teachers had mentioned to their school communities (director of school, generalist teacher) about

CLIL and their intentions to conduct CLIL lessons in their schools. They had not yet received official permission to carry out the projects and had not spoken to parents.
The main aims of this questionnaire were to gauge and capture the teachers' understanding of CLIL at this early stage (Q1); to find out if, according to their understanding of CLIL, they had been involved in teaching it before (Q2); whether they had any initial ideas of what they would do (Q3); their feelings and concerns at this stage (Qs 4,5,6); whether they could see any differences between what they understood by CLIL and their language lessons (Q7); the initial reaction of the school community, and the actual and potential role of the generalist teacher (Qs 8,9,10). It was also important to reflect on the type of support that the generalist teacher could provide as it was necessary to reinforce the idea of collaboration and its necessity in contexts where CLIL takes place.

The second Pre-phase questionnaire was administered in November by email (see Appendix 11). By this stage, the teachers had been given permission to conduct CLIL lessons in their schools and had introduced CLIL in theory to the school community. It was important to find out how they had gone about doing this and the reaction they had received. It was also important to find out how their relationship with the generalist teacher was developing and their initial collaboration. Since they were gearing towards their first CLIL experience, of great importance was how the teachers were preparing for this, how they felt about it, and to what extent it was like their current ELT practice.
This questionnaire was divided into four sections: 1. Personal information; 2. School context; 3. Collaboration with the generalist teacher; 4. You as a CLIL teacher. The section on personal information was designed to get specific information about the teachers' qualifications and experience regarding the teaching of English to young learners. Although this had been discussed informally in seminars, it had never been registered. As well as providing personal information which would contribute to the profile of each teacher, getting the teachers to write this down could also serve as a confidence boost for them entering their CLIL experiments as they were all highly experienced and well-qualified English language teachers. The section about school context focused on how CLIL had been introduced to the school community and stakeholders' reactions to the idea of CLIL in the school. It was important to find out which individuals and groups supported its implementation.

The extent of the collaboration with the generalist teacher is the focus of section three, and in particular her reaction and influence on the process. To what extent was she involved in making decisions as to what content to teach? It was important that the teachers had the support of the generalist teacher and equally that the generalist teachers still felt in control of their own classes and did not feel threatened in any way by the project.

As the title of the section suggests, 'You as a CLIL teacher' assumes a distinction between the roles of CLIL teacher and ELT teacher. Here reflection is encouraged about the extent of their preparation and whether they would envisage any differences between teaching in these contexts. In order to obtain information about preparation for CLIL (Q1), cues were given which are really a checklist of 'must-dos' when preparing to teach CLIL in the primary context in Portugal. They are particularly pertinent because while important preparation for CLIL, they should also be considered necessary for the teaching of English in primary schools. Question 2 relates to feelings toward the experience and is recurrent in the questionnaires. It would reveal the actual state of the teachers as they were about to start their CLIL teaching. To what extent had it increased anxiety levels in them? This could be linked with the extent to which they saw it as different and possibly more difficult than their language lessons. Questions 3 and 4 relate to teachers' perspectives on the differences between CLIL and EFL. Question 5 encourages teachers to think about aspects of their ELT practice which may be transferrable to CLIL. The purpose of question 6 is to see if teachers were aware of any other differences between ELT and CLIL which were not necessarily related to young learners (re- Q3). The aim of question 7 is to encourage teachers to consider strategies to support learning in CLIL. This would give an indication of scaffolding and whether they had understood the importance of this in CLIL methodology and what they considered in need of support in the CLIL classroom.

The third questionnaire was administered in January by email during the Action-phase of the study (see Appendix 12). This coincided with the onset of the second school term. By this stage, the teachers had given their first series of CLIL lessons and were preparing for another, so it was important to get their written perspectives on their experiences of CLIL in practice. Questions were structured to obtain perspectives on the extent to which the teachers enjoyed the experience compared with initial expectations

(Qs 1 and 2); how prepared they felt (Q3) and the usefulness of the CLIL preparation at FLUP (Qs 4 and 5). It was important at this stage to see whether it had been appropriate for practice and what further support was needed. This 'training' had included the use of the films of the teachers' lessons so it was important to ask how constructive these had been (Qs 6 and 7). Questions 8 and 9 relate to how easy and difficult the experience had been. As these are open-ended questions, this allows for issues beyond the teacher's own competence to be considered. Questions 10 and 11 relate to the possible influence of CLIL on the teachers' EFL lessons. Answers to these would now be based on early experimentation with CLIL. Question 12 leads teachers to an evaluation of their CLIL experience so far by asking how it could be improved. This could provoke answers related to context, preparation or personal competence. Question 13 focuses attention on the learners and the extent to which teachers can view CLIL in relation to them rather than their own experience. Question 14 encourages the teachers to think about main issues in methodology and teaching strategies (planning, scaffolding, execution of lessons) that had been discussed since the last questionnaire and put into practice. Questions 15 and 16 draw reflection on the role of the school community and its support of the CLIL lessons, and the relationship with the generalist teacher now that CLIL was in practice. Question 17 is included because the teachers had previously alluded to constraints in their CLIL contexts. It was considered interesting to find out what they would do if they had more control. The last question (Q18) aims to find out whether the teachers were conscious of any changes in their personal and professional development as a result of the experience at this stage.

The fourth questionnaire was administered by email in April before the final sequences of CLIL lessons (see Appendix 13). In between the administration of this questionnaire and the last one, the teachers had conducted a second series of CLIL lessons. In this questionnaire there was repetition of questions from previous questionnaires with regard to understanding of CLIL, viewing the films of their lessons, influence on their approach to language lessons, similarities with language lessons, changes before next CLIL lessons, school support, and evidence that CLIL is working for the children. There is a question about the teacher's degree of confidence at this stage. A similar question was asked in the first questionnaire. This could reveal a development brought about from practice. Questions 3 and 4 relate to developing competences and possible weakness that have remained even at this stage, but the focus here is on the teacher's

development and not the whole CLIL experience in terms of how easy or difficult it was, as asked in the third questionnaire. Question 9 asks whether this final experience will be any different. Here the aim was to see whether the teachers wanted to experiment further with their CLIL practice. There were indications during seminars that they might, in particular with different science experiments.

The fifth questionnaire was administered during the final seminar the three teachers attended in June (see Appendix 14). By this time, the teachers had completed the last series of CLIL lessons in their primary schools. The questionnaire is entitled 'Incorporating CLIL Pedagogy in the Language Teacher Education Programme' and was, in part, a reflection on the CLIL component of the teacher education programme which they had experienced as well as their own CLIL practice. The first question asks teachers to rate seven specific areas of the input about CLIL they received at FLUP on a scale of 0 – 5 with 5 the most positive. These areas correspond to what were considered key areas of support (theory of CLIL, lesson planning, materials, scaffolding, analysing films of CLIL lessons, pre- and post-observation discussion of lessons). Question 2 is an open question which asks how the input could be improved. Question 3 is designed to obtain specific information about the extent to which the CLIL lessons helped to develop the teachers' knowledge and teaching competences namely related to knowledge of other subjects, other methodologies, their language competence in CLIL lessons, their language use in non-CLIL lessons, awareness of making children think in CLIL and non-CLIL lessons. These relate to specific competences identified in the European Profile for Foreign Language Teacher Education, namely that "such training improves their language competence, encourages more comprehensive use of the target language in non-CLIL classes, and gives teachers ways of raising social, cultural and value issues in their foreign language teaching" (Kelly *et al*., 2004: 77). Added to this are statements for awareness of making children think in CLIL and non-CLIL lessons as much input had been given on this during the teacher education programme, and teachers seemed very conscious of it.

Questions 4 and 5 refer to the benefits and disadvantages that they had experienced from teaching CLIL. In question 6, the teachers are asked what advice they would give to other teachers about teaching CLIL lessons during their teaching practice. This would provide an understanding of what they know CLIL entails from their practice and

perhaps reveal what is needed in preparation during the teacher education programme from the perspective of a student-teacher. Question 7 asks whether CLIL should be incorporated in the teacher education programme and question 8 for an explanation of their answer. In other words, is it a useful experience for a student-teacher of foreign languages during a teaching practice?

The final questionnaire of the study was administered in June by email allowing teachers more time to reflect on their CLIL experience as a whole (see Appendix 15). The questionnaire is entitled, 'Teacher Perspectives and Profiles'. The purpose of this was to obtain the teachers' perspectives on the way they view the teaching of English in primary schools and whether this and their own language lessons had changed as a result of the CLIL experience. Questions 1, 2 and 3 focus on obtaining the details of any possible influence on primary English lessons or those given in other cycles of education, and when these changes are felt, for example, in planning or executing a lesson. In addition, the questionnaire also aimed to find out if teachers felt there was a distinction between CLIL teacher and English language teacher (Q4) and if CLIL teacher was part of their professional identity (Q5). This could reveal broad similarities or specific differences, separate or at one within the same profile. Question 7 gives the teachers the opportunity to confirm whether they think it should be part of a global identity for foreign language teachers, and question 8 to elaborate on their own professional identity. Would CLIL be included in this and to what extent?

In May 2013, two academic years after the completion of their CLIL projects during the practicum of the MEIB degree, the three teachers were contacted via email and asked if they would be willing to complete a post-masters questionnaire designed by the author. The motivation for this was the study of Curtis (2005) in which teachers who had attended a series of seminars related to reflective professional development were contacted 12-24 months after the seminars had ended in order for researchers to identify benefits derived from the seminars at that later stage. Data were collected via interviews and questionnaires. Six themes were identified in the data: "renewed enthusiasms for teaching; looking at teaching with 'fresh eyes'; shifts in understanding teaching; becoming more reflective and aware as teachers; enhancing the quality of student learning; and building professional communities" (*Ibid.*: 1). The author's motivation was a mixture of curiosity and concern derived from an interest in knowing whether the

CLIL experiments of the teachers had had any lasting effects beyond their practicum and whether the fact that the teachers had reflected in English and not in their mother-tongue had been a problem for them insofar as restricting the length and type of their reflections. The three teachers agreed to respond to the questionnaire which was administered via email (see Appendix 16 for the Post Masters questionnaire).

6.2. Films of lessons

The importance of filming within naturalistic contexts in order to obtain as rich a picture as possible cannot be underestimated, especially with regards case study research. Richards and Lockhart (1996: 11) point to the advantages filming has over other means of collecting data saying that:

> a disadvantage [of the other forms of data collection] is that they obtain subjective impressions of teaching and by their nature can capture only recollections and interpretations of events and not the actual events themselves. (…) The fullest account of a lesson is obtained from an actual recording of it.

Filmed lessons also afford the opportunity to re-view various aspects of teaching allowing the criteria for analysis to vary upon each viewing. In addition, films of lessons can be viewed individually and collectively allowing for different perspectives to emerge and be discussed. The three teachers in this study were asked if they would allow their CLIL lessons to be filmed. It was explained to them that this would enable them to view and analyse their lessons from which they could learn and become more self-aware of their teaching, and also for the author's research purposes. Permission was requested from the schools to film the CLIL lessons of the teachers for pedagogic purposes. Assurance was given that the focus of the filming would be on the teacher and not the children. Permission was given by each of the three schools and parents of the children in the CLIL classes. All of the CLIL lessons of each teacher were filmed, the majority by the author. Where this was not the case, due to the author's own teaching commitments, filming was done by the generalist teachers. Small, hand-held digital cameras were used for this purpose. Filming took place in a total of 18 lessons. In the case of Teacher R, more CLIL lessons were given but not filmed. Lessons were not filmed in their entirety. There were pauses in filming when, for example, children were being organised in groups or when they were completing written worksheets quietly and did not need the teacher's assistance.

The main purpose of the filmed lessons was to provide evidence of the teachers' CLIL lessons in practice that could be used to stimulate reflection on this practice in seminars at FLUP and for individual reflection in the teachers' private study time at home. The films provided the teachers with access to each other's classroom practice. They were thus both a tool for teaching and learning, and potential material for future teacher education sessions. It was important for the teachers to be able to look carefully at their performance and posture. This would make them particularly conscious of their verbal and non-verbal language and to what extent this supported learning. It would make them aware of the effectiveness of their methodological choices in practice and of their competences. This is something that teachers are often not conscious of, a point emphasised by Richards and Farrell (2005: 36):

> Although teachers usually feel that they have a good understanding of how they approach their teaching and the kind of teacher they are, when given a chance to review a video recording or a transcript of a lesson, they are often surprised, and sometimes even shocked, at the gap between their subjective perceptions and "objective" reality.

Filming lessons does have its limitations, however. It can be very intrusive no matter how subtle or discreet the person doing the filming is or even if a free-standing camera is used. It can affect the behaviour of those being filmed (Richards, 2003: 177). The teachers and children in this study were filmed several times which meant that they had ample time to accustom themselves to the presence of a camera and the author. The teachers were also aware that filming was for their benefit. Filming devices can also have their limitations in terms of their range or focus, and even energy supply. A few moments in filming the lessons of teachers in the study were lost because of this, and sometimes saved by the teachers themselves who had brought their own digital cameras for the purpose. The films of the lessons complemented the lesson plans and field-notes made during the observation of the teachers.

6.3. Audio-recorded seminar at FLUP and field-notes

The seminars at FLUP were opportunities for the author to provide specific input about CLIL and for the teachers to discuss their teaching practice and also future lesson plans. The seminars were the only opportunity where the author and all three subjects were together. All seminars were conducted in English and all teacher comments were also in

English. As the teachers were all familiar with one another and had developed a close personal and professional friendship prior to the onset of the study, they were not inhibited about discussing matters freely together in seminar. Seminars were an opportunity for them to meet each other on a weekly basis, find out about each other's experiences and discuss any critical incidents in their teaching contexts. During discussions, it was the author's role to mediate and ensure that each teacher commented on their teaching and was given the opportunity to give an opinion on the issue under discussion. Wallace (1991: 41) suggests that such "group mode" sessions are particularly advantageous for promoting reflection where teachers are able to "relate new information and ideas to their own previous knowledge and professional concerns". The seminars provided evidence for the study in the form of the author's field-notes of the teachers' comments and her own thoughts on these from the non-audio-recorded seminars, and the teachers' comments from one recorded seminar. The seminar data is particularly useful as it captures perspectives of the teachers at the moment they receive input, in some cases for the first time. It is also possible to pin-point the teachers' reactions to specific themes as the majority of seminars were focused on particular aspects of teaching. Like the semi-structured interviews conducted during the study, the seminars allowed for a degree of flexibility in which points raised could be discussed in more or less detail. Field-notes were made during seminars. However, not all seminars were recorded. This was because seminars were three hours in length which would have resulted in many hours of recording and it could not always be determined which moments would provide evidence for the study. In addition, early attempts to record specific moments during seminars had led to interruptions in the flow of discourse, leading to unnatural repetitions. It was decided to abandon this means of collecting data and to rely on the author's less intrusive field-notes.

The seminar of 15 November was a pivotal one as it was the first seminar after the teachers' first CLIL lesson experiences. Due to this, it was decided that it would be audio-recorded. This was done using a lap-top computer and the programme 'Audacity'. The teachers had viewed their filmed lessons at home. The aims of the seminar were to get teachers to reflect globally together about their experiences and to view and analyse excerpts from their lessons. They were to consider what conclusions they could draw related to their experience at this stage in terms of language, content and thinking skills and how 'CLIL' their CLIL lessons were. The intention was also to focus on scaffolding

strategies in CLIL lessons and to analyse the teachers' lessons for evidence of these. The teachers had previously been sent an accumulating list of scaffolding strategies (see Appendix 1) that the author had been developing so that they could view their lessons and do this task in preparation for feedback during the seminar as there would not be enough time to see all lessons in their entirety. The intention was to add to the taxonomy any new scaffolding strategies that had emerged from viewing the teachers' lessons and from the seminar reflections.

As teachers were together discussing the same topics, it is possible that their opinions were influenced by each other. However, other means of collecting evidence such as the questionnaires, interviews and written reflections were done individually allowing for personal opinion to be teased out.

6.4. Written reflection on the self-observation process

This was a written assignment for seminar assessment which consisted of three sections: observation of the generalist teacher; self-observation of films of lessons; and determining a focus for action research. It is the section on self-observation of the films of lessons which provides evidence of the teachers' perspectives in this study. The section on observation of the generalist teacher provides complementary evidence and is explained later. The assignment was submitted in December.

All of the teachers CLIL lessons were filmed. The filmed lessons were intended as a stimulus for analysis of aspects of the teachers' delivery, their attempts to scaffold their input and students' output, as well as an opportunity to explain their interactive decision-making and 'reflection in action' retrospectively during viewing alone at home or in seminars. This was an opportunity for the teachers who had never seen themselves teach before, or each other, to write about this experience and what they learned from it about themselves and their learners early on in the CLIL projects. It provided an early written record of their thoughts about their teaching. The filmed lessons were evidence of the teachers' ability to teach CLIL lessons, of their strengths and weaknesses and opportunity for them to notice other things about their teaching and contexts. This advantage is noted by Wallace (1998: 107) who of video recording states that that "it can make a permanent record of contextual and paralinguistic data, such as chalkboard work, the layout of the classroom, movement, gestures, facial expressions, and so on".

The films of the lessons had the potential to be powerful stimuli for the teachers to react to and write about. It was possible that viewing the films would lead to a deeper reflection. The teachers had a further opportunity to write about the filmed lessons in the final written reflection on their CLIL experience.

6.5. Audio-recorded post-lesson discussions

Post-lesson observation discussions are a regular part of the practicum and are a mixture of teacher reflection, observer feedback and advice between the student-teacher and his/her peers, school mentor and university supervisor. The three teachers of this study did not have peers to observe them nor a school mentor. However, they did have the generalist teacher. Since the generalist teacher was present in the classroom as the teachers were giving their CLIL lessons, it was felt important to get her perspective on the lessons observed as well as any suggestions or advice she could give about teaching or about the specific needs of the learners. It could also serve as an opportunity for the teacher and generalist teacher to exchange ideas. In addition to that, it would be a means of demonstrating to the school community what CLIL is in practice, and if done well, that it was not only feasible but also effective. Where possible the discussions took place immediately after the lessons. This was mainly for convenience of having the generalist teacher present. Discussions were conducted either in the classroom where the lesson had taken place or in the school staff room, and were recorded and transcribed. The generalist teachers were reassured that their comments were worthy contributions and would not be judged or evaluated in any way.

The discussions followed a specific procedure which was maintained during the course of the year. This procedure consisted of a brief global ‘impressions’ comment on the lesson from the teacher followed by a global comment from the generalist teacher. After this, the generalist teacher was asked questions from a series of predefined prompts. The extent to which these questions were asked depended on what the generalist teacher had mentioned in her global feedback. Included in these questions were the following: What did the children learn? This would give an indication of whether learning of content and concepts could be detected in L2. This could, of course, be influenced by the level of L2 comprehension of the generalist teacher though the opinions of the teacher and author would be able to confirm this; Would it have been the same in Portuguese? How would you have done things (differently)? These questions relate to the methodology of the

subject and whether the generalist could identify major differences in her teaching in the mother-tongue or that done through the foreign language. The answer to this question could provide more insights and suggestions about methodology of teaching content and aiding children's understanding of key concepts which could be used by the language teacher. In addition, it could highlight important similarities or differences, for example the particular differences in scaffolding strategies in CLIL and non-CLIL classes. The generalists' feedback would therefore be useful for all concerned as it would help deepen reflection on pertinent issues regarding learners, teaching competences and methodology.

The initial global feedback from the teacher and generalist teacher was given in Portuguese. This was to give voice to the generalist teachers who had all expressed understanding of English, but an inability to produce it themselves. Once the generalist teacher had given her feedback, she returned to class and the remaining feedback was conducted in English as this was the language used between teachers and the author. This was also recorded and transcribed. Where this could not take place due to the teacher or author's other teaching commitments, it was conducted at a later date in the school or at FLUP.

In the post-observation feedback between the teacher and the author, the latter assumed a supervisorial role, one which gave the teacher the opportunity to openly reflect on their practice, encouraged them to explain their actions, and provided further guidance on how to improve their practice. Observation notes made by the author as the lesson took place would be used to comment on specific details. Such notes are standard practice of the author when observing lessons and consist of a two columned set of notes, one column for procedure and the other, comments, questions and suggestions for feedback. These were used only if the teacher did not mention them herself during her self-reflection. In addition, and if not mentioned during the teacher's commentary, the following questions were used to stimulate reflection: Do you think the children understood?; Did learning take place?; Do you think you challenged their thinking? ; Do you think the cognitive and linguistic demands of the tasks were balanced? The questions were designed to encourage teachers to reflect on key issues in CLIL. It is the teachers' spoken reflections which provide evidence for this study. The comments of generalist teachers are considered complementary evidence.

6.6. Post-lesson written reflections of lessons

The teachers were asked to write a reflection on each of their CLIL lessons. The main reason for this was to provide them with more time to think at a distance which might encourage further thoughts about their experience. It would also give them the opportunity to consolidate in written form their own thoughts and those of others aired during the spoken feedback sessions, thus also providing a written record of this for future reference. Richards and Farrell (2005: 40-41) point out the importance of registering these thoughts in writing, saying that "the mere act of sitting down and writing about a lesson often triggers insights into aspects of the lesson that the teacher may not have had time to consider during the lesson itself. The process of writing thus serves as a learning heuristic." The teachers were provided with cues in the form of questions for their written reflections. These cues were given to the teachers before their first lesson sequences and were intended as a guide for their post lesson written reflections during the year. They were not, however, bound by these cues. The questions were designed to provide specific feedback on the CLIL experience in terms of the main foci/deductive categories. They focus the teachers' attention on key features of CLIL methodology and teacher competence. The last question relates specifically to the similarities and differences between CLIL and language lessons. The questions encourage teachers to take an analytical, interpretative and critical stance to their lessons.

- Did you fulfill the aims of your lesson (4Cs)?
- What did the children learn?
- What were the strengths of the lesson?
- What were the weaknesses?
- How demanding/challenging was it for the learners?
- Do you think your scaffolding strategies were adequate enough?
- What else could you have done?
- Were your tasks and materials balanced in terms of cognitive and linguistic demands?
- If you had been teaching this theme in a language lesson, would it have been different? If yes, explain how it would have been different?

There was no limit to how much teachers could write in their post lesson reflections. Richards and Farrell (2005: 39) say that this is dependent on the amount of detail and time that teachers want to give themselves to do this. This is very important to a study

of reflection as teachers who do not give themselves much time for this may not reveal how they truly feel and what is in their minds.

6.7. Audio-recorded interview with each teacher

It was decided that the teachers would each be interviewed during the interim stage of the practicum before undertaking their second series of CLIL lessons in the second school term, and at the end of their practice in order to reflect on the whole experience. It was thought that semi-structured interviews with open-ended questions had the potential to generate more detailed information. In addition, this type of interview would allow the author, if necessary, to further probe teachers' responses in order to bring to the surface previously undisclosed thoughts (Seliger and Shohamy, 1989: 166). According to Cohen and Manion (1994: 272-273) the interview serves three purposes:

> First, it may be used as the principle means of gathering information having direct bearing on the research objectives. (…) Second, it may be used to test hypotheses or to suggest new ones; or as an explanatory device to help identify variables and relationships. And third, it may be used in conjunction with other methods in a research undertaking.

In this study, the interviews were intended to serve all of these three purposes. They were conducted in English and audio-recorded. The teachers were reassured that the recordings would not be used for assessment purposes or to evaluate their competence in the language. Given the fact that the teachers were experienced, even though inexperienced when it came to CLIL, the interviews were symmetrical and more like what Kvale refers to as a "professional conversation" (1996: 5). The notion of 'hierarchy' in role relationships of interviewer and interviewee is one that features predominantly in the literature, (see McDonough and McDonough, 1997: 185; Miller and Glassner, 1997: 101; Nunan, 1992: 150; Kvale, 1996: 126), but was not evident to any great extent within the study.

The first interview was scheduled for the early Action-phase. This was thought to be an appropriate time since the teachers had had some experience of teaching CLIL and were about to start another lesson sequence. Each teacher was interviewed separately by the author at FLUP. One of the teachers was interviewed at the end of January and the other two in February. This was because of teacher availability and the timing of their second

set of CLIL lessons. These interviews allowed the author to probe a little deeper into an area also covered in the interim questionnaire, namely, the extent of the influence of CLIL on the teachers' approach to language teaching. In addition to this, it also addressed their beliefs about teaching English in primary schools and the role of the teacher. It was felt that they had had sufficient input about CLIL and enough experience of for it to have impacted on their beliefs. The interviews were recorded using a notepad computer and the software, 'Audacity'. Question prompts were devised for the interview. These allowed for specific topics to be addressed as well as flexibility in covering related issues that came up. The questions were a form of "standardising the interview" (Burns 1999: 119) which in turn allows for greater reliability. The questions were as follows:

1. What are your personal beliefs about teaching English in primary schools – about what and how it should be taught?
2. Do you think CLIL is changing the way you think – about what you teach and how?
3. Do you think the role of the teacher is any different from that in language classes?
4. What changes are you going to make, if any, in this series of CLIL lessons?

The first question encourages teachers to think about teaching English in primary schools and what and how it should be taught. It would be interesting to see whether the teachers' CLIL experience had influenced these beliefs. The second question in part relates to the first (and could even be answered in the first) but could also stimulate reflection on the teachers' current language lessons in terms of content and teaching methodology. The third question encourages reflection on teacher roles in the language class and the CLIL class. Would the teachers perceive any differences, and if yes, would they be related to competences, or degree of difficulty? The last question asks about changes that the teachers had thought of making in the next CLIL lessons in light of their previous experience. How helpful had this experience been in terms of their understanding of CLIL in practice and their developing teacher competence?

The second interview scheduled for the end of the academic year was not conducted owing to lack of time on the teachers' part, the pressures of completing written assignments and their own action research, and concern by the author that too many extra interventions may cause further fatigue and not yield interesting results.

6.8. Final written reflection on the CLIL project

The final written reflection was the opportunity for the teachers to reflect at length on their CLIL experience from a distance. It was potentially the longest of the written accounts and was to encompass the teachers' global impressions of their CLIL experience. This written reflection formed part of the seminar assessment and was due to be submitted at the end of their practice around April/May. However, as the teachers had not completed their CLIL lessons then, the submission date was extended to June. The teachers were given some prompts to organise and guide their reflection. These were:

- Your theory of CLIL. What it is to you as a result of your practice.
- Organising CLIL at school – school community, parents, children.
- Final outcomes and attitudes of children/school community/parents.
- The lesson planning procedure.
- The strengths and weaknesses of your projects.
- Influence on your language lessons.
- What you’ve learned about yourself and how your teaching has changed or not as a result of the experience, i.e., your personal and professional development.
- Your future plans, if any.
- Advice to other student-teachers about CLIL projects.
- Advice to school communities.
- The inclusion of CLIL in your teaching practice.

They were to use these prompts only if they wanted. The prompts relate to the foci for the content of reflection which are also the deductive code categories of the study with the exception of ‘organising CLIL at school, future plans, advice to other student-teachers about CLIL, advice to school communities, and inclusion of CLIL in the teaching practice.’ These are related to stakeholder intervention and attitudes which would need to be taken into consideration in any context where CLIL might be considered, and teacher education for CLIL and its place within the teacher education programme at FLUP. The teachers were told to be very honest in this written reflection. Although this work was assessed, it was important that the teachers did not simply glorify CLIL to please the author. Their honesty would be more helpful when organising the teacher education programme for other student-teachers.

7. Complementary tools

The practicum of the teachers generated documents which can be considered complementary evidence for the study. These are described below.

7.1. Written reflections on observations of the generalist teacher

A substantial part of the teaching practice in the second year of the Masters is spent observing mentors teaching in schools. In the first two and a half months, student-teachers observe their mentors and do observation tasks focused on the teacher and the teaching process. These tasks are designed to prepare student-teachers for when they begin teaching lessons in late autumn. In addition, they serve the purpose of guiding them to notice particular features within the bigger picture of the classroom context.

The teachers in this study did not have mentors in their schools. It was decided that they would approach the generalist teacher of the class they were using for their CLIL projects and request permission to observe a lesson(s) where the generalist was teaching Social Studies ("Estudo do Meio"). Deciding what to focus on when observing the generalist teacher was discussed in seminar and the format of a possible observation grid was suggested with columns for time; what the teacher said/did; and teaching strategies. Teachers were asked to design their own grid from these suggestions or others which they thought would be helpful. They were also given an observation sheet with specific points to guide their observations which consisted of the following broad areas: planning, materials, presentation of content, teacher talk, supporting content, supporting learning (see Appendix 17). These were areas which they would have to focus on when planning their CLIL lessons. A specific focus on these in the generalist teacher's class would raise their awareness of how they are covered in the non-CLIL context and help them to consider how they would have to be adapted in the CLIL lessons.

The observation of the generalist teachers was important in giving the teachers a better idea of primary education in practice, how teachers teach, the methodology employed, materials used, what 'routine' children are used to, what is expected of children, how they work, what types of question are asked and how they are answered in L1, the cognitive and linguistic demands of the lesson and how these are supported. It would also help them to gauge what children are capable of doing in L1 and consider what would be appropriate to expect from them in the CLIL lessons. In addition, it would help them consider their own competences as language teachers in a CLIL context. The teachers wrote their reflections on this observation process which was part of a larger

assessed seminar assignment which also included their reflections on their filmed lessons and their preliminary ideas for their own action research projects.

7.2. Lesson plans

Planning for CLIL lessons was discussed at length in seminars and examples of templates were shown to teachers. These were from Coyle *et al*. (2010: 79-83) and a website for CLIL teachers in Catalonia[25] which had been recommended by a teacher from there who visited FLUP and gave presentations about his work with CLIL. This teacher had contributed lesson material to the website and to the abovementioned section in Coyle *et al.* (2010). A list of requirements for CLIL lesson plans was given to teachers. This consisted of the following:

1. Unit mind map: Central topic with branches for 4Cs: Content, Communication, Cognition, Culture.

2. Unit plan: Aims, Assessment criteria, Teaching objectives for 4Cs, Learning outcomes for a sequence of lessons.

3. Lesson plan procedure:

Stage Time Interaction	Procedure (Teaching instructions)	Learning Aim	Scaffolding strategies

This was a combination of that illustrated in Coyle *et al.* (2010: 79-83) and that used for language lesson planning at FLUP. The procedure section of the plan came from the existing framework for language lesson plans introduced and used in didactics lessons and during the practicum. This was adapted to include a column for scaffolding strategies (for an unedited example of a lesson plan from one of the teachers (Teacher C), see Appendix 18). The format of the lesson plan procedure incorporated and stimulated reflection during the planning process by encouraging teachers to consider learning aims and scaffolding strategies for every stage of the lesson in order to satisfy the main aims of the lesson in the most logically coherent way possible.

[25] Available from:
www.srvcnpbs.xtec.cat/cirel/cirel/index.php?option=com_content&view=article&id=46&Itemid=74

The teachers' lesson plans are a formal, practical illustration of their developing received theoretical knowledge and personal practical theories about CLIL. They are evidence of their understanding of CLIL as a methodology, of what constitutes a CLIL lesson, and CLIL teaching and learning. They could contribute evidence of the teachers' developing awareness over time and as such would allow for comparisons between early and later CLIL lessons of individual teachers. The lesson plans would allow for identification and analysis of specific features such as the organisation of content input, language preparation, the development of thinking skills, scaffolding, progression of tasks from lower to higher order thinking, language preparation and interaction patterns. The choice of teaching aids and design of materials would provide evidence of the teachers' consideration of appropriate means to help their students understand key content and concepts. They would also reveal whether they had considered cognitive and linguistic demands within and between tasks and in materials. These are all core competences of CLIL teachers and features of CLIL teaching methodology.

7.3. Interviews with generalist teachers

The generalist teachers' collaboration within the CLIL projects was very important. Their full cooperation was vital to the smooth running of the teachers' practicum in the CLIL contexts. The CLIL lessons were taking part in their classes with their students. The teachers were giving lessons on the content of Social Studies through English which had been decided in conjunction with the generalist teachers. The generalist teachers were professionals from whom the teachers in this study could learn in terms of subject teaching methodology. The generalist teachers were also present during the CLIL lessons. Their perspectives on this experience as generalist teachers who were primary specialists were also important. In questionnaires and seminars at FLUP the teachers had been asked about the schools' perspective on the CLIL experiments, so it was important to get this first hand from the generalist teachers.

Three structured interviews were designed for the generalist teachers with whom the teachers worked in primary schools in each of the key phases of the study. A series of open-ended questions was complied for each interview. The same questions and format were to be followed with each of the generalist teachers in order to provide for standardisation. The interviews were scheduled to take place in the primary schools in the presence of the teachers and conducted in Portuguese. The decision to allow

teachers to be present was taken as they could be requested to help reformulate the author's questions in Portuguese should these not be clear. They could also be called on by the generalist teachers to provide or confirm information about the context or children since classes were taught by both. All except the final interviews were audio-recorded. Instead, this was administered to the generalist teachers as a written interview as one of them had requested this format for personal reasons mainly related to convenience. It was decided to use the same format for the other two generalist teachers. Once the author obtained the written interviews, she arranged to speak to each generalist teacher about the answers given in order to ask for clarification of information or additional information. This was done during a final 'courtesy' visit to each school to thank them and the directors.

The collection of interview data from the three stages of the study enabled perspectives to be gathered over time from a reflection before the experience began, to a reflection on action, and to a global perspective of the experience. The first interview took place in November in the Pre-phase and was designed to find the opinions of the generalist teachers about the purpose and actual teaching of English in primary schools; their knowledge and understanding of CLIL; the opinion of the school community including parents; benefits to children; the teacher competences needed; and whether they would consider this form of teaching themselves (see Appendix 19).

The second interview took place in the Action-phase of the study by which time the generalists had observed the teachers giving the first sequence of CLIL lessons in their schools. The purpose of this interview was to obtain the generalist teachers' perspectives of CLIL in practice (see Appendix 20). Questions were directed to the following areas: general impressions of the experience so far, how effective it is, the easiest and most difficult things about it; transference or interference noticed in the generalist's own lessons in terms of the references to what has been done in the CLIL lessons with the children, whether the children use English in her lessons which would indicate, on the one hand, understanding through English, but on the other, gaps in the CALP in the mother tongue; their own learning of CLIL in relation to the methodology and effects on the children; methodological gaps in the teacher's teaching – content knowledge/strategies; potential changes to the next sequence of lessons; effect of the

experience on their perspective about how English should be taught in primary schools; evaluation of the children; dissemination of information about the project to parents.

The final interview took place in the Post-phase of the study after the teachers had completed their last sequence of CLIL lessons between April – June (see Appendix 21). Since the last interview, the teachers had given two further sets of CLIL lessons. This meant that there was ample experience for the generalist teachers to comment on. The questions focus on general impressions on the project; what they have learnt from it, whether any initial concerns became reality; changes in the children over time, their use of English words in class, benefits to children; whether it has influenced the way they view the teaching of English in primary schools; continuation of the project, improvements, teacher involvement; their own understanding of CLIL; evaluation of the children; and dissemination to parents.

8. Approach to data analysis

In this section the procedures used to process and analyse data are described. The study yielded qualitative data collected from a variety of data-gathering tools some of which were part of the regular procedure during the practicum and others specifically designed for this study. The data were processed and analysed to provide individual as well as collective results about the content and types of reflection of the teachers at each phase of the study. The content and types of reflection constitute the two dimensions of analysis of the data. These are directly related to the research questions of this study. Richards (2003: 273) states that “categorisation has already begun when the aims of the research are formulated because implicit in their selection is an element of conceptual identification. However, the categories here will be broad ones - something more refined must be developed.” The eight foci of reflection: context, understanding of CLIL, methodology, CLIL vs. ELT, ELT for young learners, learners, teacher competences, and personal and professional development, formed broad macro deductive categories for the organisation and analysis of the content of reflections. The term 'deductive' is used here in the sense of pre-determined focus of analysis. Once organised in these categories, data were analysed for the emergence of themes or sub-categories within each of the major deductive categories. Finally, this was analysed along the second dimension for analysis, types of reflection, using the rubric tool consisting of descriptors for four types of reflection (0-3). It can be said that the system

of categorisation used in the study adheres to Richards' (2003: 276) four essential features in that it is "analytically useful", "empirically relevant", "practically applicable", and "conceptually coherent".

8.1. Processing and organisation of data

All raw data went through various stages of processing which involved placing it in tables where deductive categories, sub-categories and types of reflection could be identified. This was done for data obtained for each teacher at each of the three phases of the study. For the Action-phase, this also included reflections on each lesson in all lesson sequences given by the teachers. Data were firstly organised according to the macro deductive categories. Questions within the questionnaires were related to the foci of reflection so organisation of the raw data into the deductive categories was straightforward. All answers except for short answers of affirmation or negation, or those signalling agreement were analysed for sub-categories and types of reflection. The longer written reflections were processed by putting the text in the large central column of a three-columned table. The column to the left of this was used to identify the macro deductive and micro sub-categories. The column on the right was used to identify types of reflection. The raw data from the spoken accounts were firstly transcribed in full. No particular transcription conventions were followed as analysis was specifically focused on the content of what was said. However, long pauses were indicated by '...' in order to establish length of time needed to respond. Once transcribed, two columns were added to the transcription table, one for the analysis of deductive and sub-categories and the other for types of reflection. When organising the data an indication of the tool used and mode in which it was collected was attributed ('i' for interview; 'sem' for seminar; 's' for post-lesson feedback; 'q' for questionnaire; 'w' for post-lesson written reflection and written assignments). This labelling was not a criterion for analysis though it is one which is suggested as a future line of study.

8.2. First dimension of analysis: content of reflections

Once data had been organised in the macro-deductive categories, they were analysed for evidence of themes or sub-categories which emerged from within the content of teachers' reflections. This allowed for a detailed account of the content of reflections about the CLIL experiences of the three teachers at the three phases of the study, and the comparison of sub-categories between the phases of the study. The detection of sub-

themes allowed for a richer picture of the content of teachers' reflections to emerge. The sub-categories had not been pre-determined and were ones which emerged from the data which had been associated with a particular deductive category. In accounting for emergent categories, the study can be said to contain elements of a grounded approach (Glaser and Strauss, 1967; Strauss and Corbin, 1994: 273 - 285). Thus, the system of categorising the content of teachers' reflections was a hybrid combination of *a priori* and grounded approaches bound conceptually by the research questions determined for this study (Miles and Huberman, 1994: 55) (for an example of how raw data were processed and organised for the analysis of sub-categories and types of reflection see Appendix 22).

Once the sub-categories for each deductive cataegory had been detected for each teacher at each phase of the study, they were collated into one of eight tables, each table representing a deductive code category with three columns for each of the three phases of the study. The sub-categories were then further refined and grouped under headings in each phase column to facilitate further analysis. This allowed for comparison of sub-categories across the phases of the study (for an example, see Appendix 23). According to Richards (2003: 279), “As category development moves forward through a process of conceptual, analytical and theoretical refinement, an explanatory picture begins to emerge.” The constant comparison of the reflections of individual teachers and between teachers at different phases allowed for the checking of hunches and drawing of conclusions. The same procedure was carried out in order to establish the sub-categories of each teacher. Eight tables of sub-categories, one for each deductive category were created for each teacher (for an example, see Appendix 24). This organisation facilitated comparison of individual teacher's reflections as well as between the teachers themselves. As Miles and Huberman, (1994: 69) state, “it lays the groundwork for cross-case analysis by surfacing common themes and directional processes”. It also provided further triangulation of the sub-category analysis as the data was revisited for each teacher. Selinger and Shohamy (1989: 105) say that such “re-inspection” enhances the “confirmability” of findings.

8.3. Second dimension of analysis: type of reflection

The rubric tool (see Appendix 3) consisting of descriptors for four types of reflection was used to identify types of reflection in data collected for the study, namely from:

written questionnaires, transcribed spoken interviews, seminar discussions, post-observation discussions of lessons, post-lesson written reflections, a final written reflection on the CLIL teaching experience. The data were coded with a number corresponding to the type of reflection (0 – 3). Each paragraph in written accounts, each answer in written questionnaires, and each long turn in transcribed interviews and seminar discussions was coded with a single number denoting a majority type of reflection. In longer texts the types of reflection were identified and coded paragraph by paragraph (for an example see Appendix 25).

The numbers of each reflection type detected in data collected for each teacher were counted to obtain a frequency of reflection types for each teacher at each phase of the study. This enabled a majority reflection type/tendency toward a type to be identified within each phase of the study for each teacher. Reflection types were also identified for each of the deductive code categories for each teacher at each phase of the study so it was possible to establish a correspondence between frequency/tendency of reflection types and content of reflection. In addition, majority reflection types were calculated per teacher, per deductive category, per phase of the study.

8.3.1. Reliability of the rubric

The rubric was first piloted by the author using various samples of data. It was then sent to three independent raters from two European countries. These raters, all university professors, had been selected on account of their involvement in English language teacher education and expertise in CLIL. Each rater was sent three documents: a sample of data (extracts from the final written reflection of one of the teachers) which had been coded by the author of the study using numbers from the rubric (0-3) and contained the full range of reflection types, the rubric itself, and a set of instructions. Raters were asked to indicate whether they agreed or disagreed with the codes attributed to the sample of data. If there was disagreement, they were asked to indicate their suggested number. They were also invited to make comments on the rubric if they wished. All raters were satisfied with the format and descriptors of the rubric. They were in agreement with the codes attributed to the sample. Miles and Huberman (1994: 64) point out that "[t]ime spent on this task is not hair-splitting casuistry, but reaps real rewards by bringing you an unequivocal, common vision of what the codes mean and which blocks of data best fit which code". Given that the raters were from different

institutions in two European countries, it was important to find out their opinions of the rubric especially as to whether they thought they could use it in their teacher education contexts.

9. Triangulation

Cohen and Manion (1994: 233) describe the potential of triangulation to go beyond "the use of two or more methods of data collection" to include six further types: time, space, combined levels (individual, interactive - groups, collectivities - organisational, cultural or societal) theoretical, investigator and methodological (*Ibid.*: 236). This study incorporated a number of different types of triangulation. A variety of methods were used to collect qualitative data at three different time phases over an academic year. This provided triangulation between methods and over time. Allowing teachers to express their reflections using a variety of modes (spoken-individual, spoken-group; written questionnaire, written text), was not only an important means of checking the extent of reflection and types per mode, but also fairer to teachers as it accounted for all preferences. Data were collected from individuals alone and from individuals when in a group. Data were also processed for an analysis of individual teacher's reflections and those of a group of three teachers. Three independent raters were involved in validating the use of the rubric to identify different types of reflection. The complementary evidence such as the teachers' lesson plans and films of lessons was also used to confirm their comments mentioned in reflections. McDonough and McDonough (1997: 199) state the importance of observer field-notes in this process. The methodological design and procedure of this study can therefore be said to incorporate multiple types of triangulation.

Summary

This chapter has provided a rationale for the main decisions regarding the methodology of this study and the approach to analysis of the data gathered. These have been framed by the special circumstances of the particular year in which the study is set which provided both a challenge and opportunity through the three experienced primary English language teachers. The opportunity afforded by the circumstances was to carry out research in order to develop understanding about reflection and CLIL in practice in primary schools. The paradigm of qualitative research, and the methodological approach of case study were considered the most appropriate for this investigation. The data-

gathering tools selected are a mixture of non-intrusive and intrusive means given that the research was conducted during a teaching practicum year which by nature involves the use of procedures, tools and strategies which promote reflection. The means for analysing the data have been explained. These focus on two dimensions of reflection: content and types of reflection. The data were analysed for the emergence of sub-categories which are related to eight key foci for the content of reflection. Types of reflection were identified using a specially constructed rubric tool consisting of descriptors for four types of reflection. Analysis along both dimensions was applied to the data collected for each of the three teachers. The findings of this analysis are presented and discussed in the next chapter.

Chapter 5
Findings and discussion

Introduction

In this chapter the findings are presented and discussed in order to answer the research question of the study which consists of three parts:

1. What are the perspectives of the teachers during their CLIL experience?
   a) What do the teachers reflect on?
   b) What types of reflection do they engage in?
   c) Do the foci and types of reflection change over time?

The chapter is organised in two main sections which correspond to the main dimensions of reflection examined in this study: content and types of reflection. Findings common across the three cases (the three teachers) are presented as in cross-case analysis in multiple case studies. Those findings unique to each case which are considered relevant are also presented. As findings are presented they are also reflected upon and discussed.

1. Content

This section provides a description of what teachers reflected on during their CLIL experience. It is divided into eight parts which correspond to the eight foci which formed the deductive categories around which the study was organised. These foci are: context, understanding of CLIL, methodology, CLIL vs. ELT, ELT for young learners, learners, teacher competences, and personal and professional development. For each of these a table of sub-categories detected across the three phases of the study, Pre-, Action- and Post- is presented. The headings for these categories are general, but each covers a range of themes which are described in the text. Some sub-headings are common to more than one deductive category. The replication of sub-categories and themes is an important finding of the study. However, where themes and perspectives are exactly same, they are discussed in one section only so as to avoid repetition. Tables proposed by the author comprising full details of themes for sub-categories for each of the eight foci are provided in the appendix. The sub-categories are discussed in relation to their replication across cases or pertinence if unique to individual cases. Evidence to support findings is provided through teachers' 'voices' from their reflections, and where relevant, supported by complementary evidence from the study. As mentioned in the previous chapter, an indication of the tool and mode of reflection was attributed to the data i.e., 'i' for interview; 'sem' for seminar; 's' for post-lesson feedback; 'q' for questionnaire; 'w' for post-lesson written reflection and written assignments. This was

not, however, a criterion of analysis. The teachers' accounts are in their original form. No attempt has been made to correct grammatical or orthographical inaccuracies.

All three teachers taught content from the Portuguese primary national curriculum for the third year of Social Studies ("Estudo do Meio"). The content area and number of CLIL lessons were determined by the generalist teacher and the language teacher (Teacher C, R, CD) in each of the three primary schools. The content areas taught by each teacher were as follows:

Teacher C: nationalities; feelings and emotions; animal habitats; food chains, and magnetism;
Teacher R: plant reproduction; animal body features; food chains;
Teacher CD: family relationships; plants; magnetism.

As can be seen there was some overlap in the content areas covered by the teachers. Two teachers taught about food chains, and two about magnetism.

In addition to presenting findings of what teachers' reflected on, this section also provides interpretation of teachers' accounts for types of reflection. This is presented here so as to provide for more proximity to the illustrations of teachers' reflections and to avoid repetition of these in the second section of this chapter.

It is important to re-introduce the analytical tool or 'rubric' used to detect types of reflection in teachers' accounts. The rubric consists of four sets of descriptors for four types of reflection. These types are:

Type 0: Descriptive/behavioural;
Type 1: Descriptive/analytical;
Type 2: Dialogic/interpretative;
Type 3: Critical/transformatory.

An explanation of how the rubric was devised is provided in Chapter 4, and a complete set of descriptors is found in Appendix 3. Each set of descriptors for each type of reflection is organised under five headings: discourse type, rationale, level of inquiry,

orientation (position of self), and views of teaching. This was done purely to provide for coherence within and across the four types of reflection. The headings were not used as separate foci for analysis. For example, an account was not attributed a type of reflection for discourse type and another for level of inquiry. This was because instances of reflection do not always contain all elements. A holistic approach to analysis was adopted whereby a type of reflection was attributed to an account based on a broad tendency towards that type. Examples of teachers' reflections and their categorisation according to a type of reflection are provided below. These are accompanied by brief explanations.

Type 0: Descriptive/behavioural

> The generalist teacher is always there when I need to talk, to share my ideas, or when I need her opinion or feedback. I also collaborate with her but I think I need more her help, support and knowledge than she needs mine! We have at least one or two meetings a month to talk about my lessons, the students and about the CLIL project. I also agreed with her that I would attend her classes at least once a week (Wednesdays or Thursdays) and she stays during my lessons twice a week every week. I know I can count on her every time and for everything I need. (Teacher Rq).

This is a straightforward descriptive account of the relationship the teacher has with the generalist teacher. There is no attempt at analysis or provision of explanation for actions.

Type 1: Descriptive/analytical

> Regarding communication I think that using a clear and precise speech with an audible and appropriate tone of voice is the most important. I always tried not to limit myself to a static position in the classroom because when moving around I could give more liveliness to the lesson and I could also check some of the students' questions and difficulties. Also very important is that I tried to encourage the participation of all students, especially those with more difficulty in learning English. (Teacher Rw).

Here the teacher's description of her practice is punctuated with rationale for each of her actions. However, her justifications are limited to her own perspective and there is no

attempt to shed further light on why she acts the way she does. Her account is also mainly focused on herself and her own competence.

Type 2: Dialogic/interpretative

> However, I have watched and reviewed the films of my lessons and I noticed some things that I have to be careful:
>
> - I tend to answer to my own questions, not leaving time for students to answer to my questions
> - There are some students that never talk in my lessons, so I have to give them time to do so
> - I don't give them enough visual support of the language for learning. Even if they want to speak more in English, they are not able to do so, because they haven't got the language. I need to rethink these strategies.
>
> In future CLIL lessons I need to focus my attention in scaffolding the language. (Teacher Cw).

In this account, the teacher examines her own actions in relation to their effect on her students. She problematises through a process of "framing and re-framing" (Schön, 1983: 40) in order to provide solutions to improve her teaching. There is a sense of her wrestling with the problems of teaching, finding new ways of interpreting it and setting a new agenda of action. However, she does not fully elaborate on this in any of her suggestions.

Type 3: Critical/transformatory

> Another aspect to reflect on is the fact that CLIL projects are very hardworking and time consuming. The lack of CLIL teacher-training programmes for English teachers or other subject teachers is also a problem because it is not easy to understand the right concept of it. FLUP and other language institutions can play an important role by doing this. Now I can say that I feel prepared to teach CLIL lessons but I took a year to learn it. Until CLIL training for teachers and materials are easily available, I think it will be very difficult for any teacher with or without experience to implement this project voluntarily and on their own initiative. Being a CLIL teacher will require a rethink of the traditional skills and knowledge of the language teacher, classroom practices and materials. It will be a huge challenge. (Teacher CDw).

Here the teacher articulates her position regarding the implementation of CLIL which she sees as complex. She provides multiple justifications for this complexity as well as possible solutions. Her comments reveal her own practical theories about CLIL which

she expresses both objectively and subjectively with an illustration from her own experience. They suggest the broad perspective of someone who has gained new understanding from practice, albeit about the complexity of CLIL, and can engage not only in problem-solving but also "problem setting" (Schön, 1983: 39-40).

Also included at the end of each section about the content of teachers' reflections is a table of the frequency of types of reflection on a particular deductive category for each teacher at each phase of the study (Pre-, Action- and Post-action). Frequency is represented by the number of instances of a type of reflection, for example 10 x 0 equals 10 instances of Type 0. Frequencies enable broad tendencies towards particular types of reflection on specific content to be established. Numbers in bold correspond to majority types of reflection.

1.1. Context

There was no single sub-category common to all cases over the three phases (see Table 5 for a list of sub-categories and Appendix 26 for a full list of themes that each category contains). The variety of sub-categories can be attributed to the idiosyncrasies of each context and the extent to which these facilitated the development of the CLIL projects. Even where there are common sub-categories in the various phases, there is variation within them.

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
• CLIL teacher feelings about implementation • School community • Parents • Generalist teacher • Learners	• School community • Parents • Generalist teacher • Learners • Teacher contact • Lessons • Protocols • School curriculum • Costing CLIL	• School community • Parents • Generalist teacher • Generalist teacher profile • Lessons • Language teachers • Understanding requirements for implementation • Constraints on implementation

Table 5. Sub-categories for deductive category: context

CLIL teacher feelings about implementation

With regards to this category, common to all cases was concern for the school community's reaction to CLIL and their understanding of it, as well as strategies to deal with this through promoting the advantages and benefits of the approach. In one case there was the suggestion that the approach should be implemented and monitored over a longer period as in a longitudinal study. Each teacher introduced CLIL to the school community in a meeting at the beginning of the academic year which was attended by parents of the class in which they wished to conduct their project and the generalist teacher. Two of the teachers gave a powerpoint presentation which included a summary of CLIL, benefits to students, and how the project would be carried out at school. They mentioned that the generalist teacher would be involved in planning lessons and present in class. In addition, Teachers C and R gave those present at their meetings a handout about CLIL which contained information about its endorsement by the European Commission, its scope across Europe, the role of English, and choice of subjects taught through the foreign language (See Appendix 7 for the handout given by Teacher C. Teacher R gave a shorter, simplified version of this).

School community

In the Pre-phase there is no single factor common across cases in relation to school community although the majority 'feeling' is positive. This is reiterated in the Action-phase, with mention of support and acceptance of the project in all cases.

> The school community has been quite supportive with this CLIL experience. From the generalist teachers to the Agrupamento and to parents, all have showed their respect, support and curiosity on my work. The generalist teachers were always asking if everything was going well and told me that if I needed help I could count on them. The Agrupamento hasn't asked much but was very supportive as far as resources and materials were concerned. I've spoken to them and they said that I could count on them. (Teacher Rq).

However, support is countered by a concern about student failure in tests in one case, as well as mention of the project only being endorsed due to the trust placed in the language teacher known to the school community in another.

> After having explained what CLIL is all about, all the generalist teachers said it was a great idea. They commented "Portugal is so far behind! We should have this here sooner." Only an older teacher said "How can they learn in a foreign

> language? They can't even write in Portuguese correctly! No, I think doing that is not a good idea." Apart from this teacher, all the others thought this approach of teaching *Estudo do Meio* in English a great idea. (Teacher Cq).

> The school directors as well as the generalist teacher found the idea very interesting but they only authorized this project because they knew me, otherwise they wouldn't approve it. They told me that they don't want to be responsible if some Ss couldn't do that in English. Parents could argue "Well my son is a good Ss but he failed that exercise because he is not a good English Ss or because he never had English". (Teacher CDq).

These points were mentioned again at the end of the project. The perspectives of the other case where school community was a sub-category in the Post-phase remained positive. All of the above are accounts of reactions to the CLIL projects. They are purely descriptive of the circumstances at the time and as such are representative of Type 0 reflection.

Parents

The sub-category, 'parents' revealed a range of differences across cases. The only similarity in the Pre-phase was parents' interest in CLIL and the project. In two cases there was interest in continuation of the project, and in one, concerns were revealed related to weaker students' performance, students who did not attend language lessons who it was thought would be disadvantaged linguistically, and not knowing content in Portuguese.

> Some parents found the project very interesting and innovative and they suggested continuing the project next year. However the parents from the pupils that don't have English as an Enrichment Activity and the parents of the weaker pupils were concerned about the fact that their children wouldn't understand the topics because of their language level. Other parents said that if the topics were to be taught in English how would they know how to talk about the topics in Portuguese the following year. (Teacher CDq).

The first concern is commonly cited as is the reaction to it, which is that non-academically-gifted students also cope well with CLIL (see Marsh, 2002: 73). The latter concern about gaps in key terminology which students may need at later levels of schooling is also common. This concern is allayed by scholars who stress that students in CLIL classes do as well or even better than their non-CLIL counterparts as CLIL

facilitates rather than inhibits content and language learning owing to the increased meta-linguistic awareness which it brings about (Mehisto *et al.*, 2008: 20). These concerns were also raised by parents and teachers in the study of Massler (2012) within the ProCLIL project in Germany. In practice, the ProCLIL teachers revealed that learners did need more time to learn content in English than in German and that low-achievers were disadvantaged. Some teachers remedied this by switching to German to deal with demanding content, whereas others simplified the topics. The researchers suggested that neither strategy was appropriate, but that the intensity and continuity of CLIL lessons be examined as well as providing better training for teachers who are inexperienced in CLIL teaching.

In the Action-phase, concern regarding content taught only in English was still present in the same school above (School CD). In another case, support and appreciation were noted which were endorsed by the removal of children from the optional language lessons as English was provided in the "more interesting" CLIL lessons.

> [O]ne of the best things I noticed is that my students are really, really excited and parents, too. Some of them didn't put their children in the AEC English because they felt it was much more interesting for the children to have them in the generalist teacher's class learning content through the language and they know that they are learning language, of course. And the kids are really excited. (Teacher Csem).

In the Post-phase, parental appreciation was mentioned in all cases and continuation of the project in two. In one case initial parental concerns about test results were re-visited as well as early scepticism of the project. However, this was countered by changes in parental views of English in primary schools, no doubt influenced by the children's positive comments on the project at home. CLIL in practice allayed many parental concerns. This was confirmed in a questionnaire given to parents at the end of the projects. The questionnaire was designed by the author and adapted and translated into Portuguese by the teachers. It was handed to children to give to their parents at the end of the school year (see Appendix 27). The results of the questionnaire were overwhelmingly positive. Initial concerns mentioned by parents confirmed the teachers' reflections on these. However, these concerns did not manifest themselves in practice. The majority of children talked about the CLIL project with their families. Parents were impressed and wanted the project to continue. In her comments below, Teacher CD is

clearly very keen to transmit the results of the questionnaire. This is not surprising since her school demonstrated the most concern at the beginning of the project. Although her account of parents' reactions is largely descriptive, she has taken care to illustrate her many points with genuine testimony which makes it more compelling.

> In the questionnaires parents did at the end of this project, almost everyone agreed that this project was very good. According to some parents' opinion this project was *"Óptimo para desenvolver o gosto e o conhecimento da língua."*; *"...uma mais valia para os alunos, uma vez que os prepara para o futuro, promove o conhecimento da língua inglesa..."*; *"...uma preparação para o 2º ciclo"*; *"Devido ao entusiasmo (...) será vantajoso para as crianças"; "...permitiu uma aprendizagem mais natural e com mais prazer".* They said that their children were very excited and enthusiastic about the CLIL lessons and that they shared their knowledge at home "Toda a gente em casa aprendeu algo, tal era o entusiasmo da Maria". All parents said they wanted this project to continue next year *"Todas as experiências bem sucedidas devem ter continuidade (...) as crianças envolvidas participaram de forma empenhada e merecem não ser defraudadas nas suas expectativas que são de continuidade do projecto. Penso ainda que o projecto deveria no próximo ano ser mais ambicioso e integrar novas áreas."* Unfortunately I cannot say if I will be able to continue this project at this school because I don't know if I will work here next year. (Teacher CDw).

In Massler's longitudinal study (2012) it was mentioned that parents became more convinced of CLIL as the years went by. This was facilitated by the modular approach adopted which allowed for mother-tongue teaching of the subjects to be integrated within the programme thus quelling any fears of under-developed language competences. A type of modular approach was also adopted by the three teachers. This involved generalist teachers teaching within the same module. It was therefore unlikely that content would not be covered in the mother-tongue at some point.

Generalist teacher

The sub-category of 'generalist teacher' was evident across all three phases in two cases and in the other case across the Pre- and Action phases. In the Pre-phase, similarities in perspectives across cases related to the type of support given or intended by the generalist teacher in the form of advice about students, type of content, practical ideas about lessons and materials, as well as accepting to be observed teaching, and to observe and provide feedback on the CLIL teacher's lessons. Issues specific to individual cases related to further support with parents, provision of class time, interest

in the project, disappointment at Portugal's lateness to get involved in innovative projects, and initial discomfort at being observed.

Common across all cases in the Action-phase, was generalist teachers' support with ideas for content topics. Support with parents and providing more time for lessons was mentioned in one case, as was appreciation of the project, noted by the generalist's intention to share information and photos about it in the school blog. However, the issue of lesson territory and ownership of content arose in two cases. There is an indication of this at the end of Teacher C's account below.

> The relationship with the generalist has been excellent. She welcomed the idea with pleasure and she thinks this could be the future. She thinks that there are a lot of things that could be done in English (not all, of course.) She gives me some ideas on how I can approach a topic and we plan together. She tells me what the students should know and what I am allowed to teach (because there are some topics she feels she should be the one to teach). (Teacher Cq).

This was not the case in School R where content coverage had been determined from the outset and they had had experience of working together. Here collaboration and reassurance from the generalist teacher were mentioned. Teacher R provides a descriptive account of the relationship between herself and the generalist teacher. This is straightforward and there is nothing problematic about it.

> The generalist teacher's reaction has been extremely positive. She understood the CLIL process and agreed in working, meeting, discussing and helping me in any way. She seems really interested in doing this project with me and most of all she was glad with the fact that I was going to do this with her students. She has shown total collaboration. (Teacher Ri).

By the Post-phase, in the two cases where there was a sub-category for generalist teacher, support during the project was reiterated. In one case negative issues were revisited such as the fear of failure and parental reaction to this, but despite this early scepticism, the generalist teacher's positive impression was cited as well as her appreciation of methodology and materials used. This was endorsed in her suggestion to extend CLIL to the teaching of other subjects and the positive attitude towards English in primary schools. The generalist was considered important in facilitating the project. In one case there were suggestions as to the type of profile a generalist teacher should have: one that is supportive, open-minded and collaborative.

In the interviews with generalists, none of them expressed any initial concern about the project though one did mention that she was apprehensive about an entire topic being given through English as this would been too much language and content for the students to cope with. This same generalist teacher said that there was acceptance among parents as they knew she would be present and involved. In the final questionnaire for generalists, another mentioned the initial concerns of parents at her school regarding the content not being given in Portuguese. Appreciation and trust in the project were also indicated by the extent to which each generalist teacher allowed content to be taught through English. This ranged from long-term planning across an academic year, to just three lesson sequences. That said, this is also an indication of the degree of flexibility across contexts. All three generalists were positive about the experience, mentioned the students' enthusiasm and parents' satisfaction, and could see that it was possible. They understood that CLIL demands certain requirements, namely collaboration, a regular timetable facilitated by English being part of the curriculum, and time for planning and execution of lessons. They said that they had learned more about the English language (for the generalist teachers' final written impressions of the CLIL projects, see Appendix 28).

Language teachers

In the Post-phase the sub-category of 'language teachers' was common to two cases though different issues were presented. One teacher mentioned that successful CLIL projects where the language teacher was the CLIL teacher could be a threat to content teachers' positions in schools.

> [G]eneralist teachers can see this project as a threat to their jobs or even pride if the English teacher performance is better than his/ hers. (Teacher CDw).

This raises an interesting point as it is the opposite that is normally posited which is that it is language teachers who should fear for their jobs (see Clegg, 2006: 33). In another case, CLIL was mentioned as improving the status of primary English language teachers.

> I think, maybe it's just my feeling, but I think even the students see me as a different teacher. They know me from last year, for example, and they don't see me just as the English teacher. They are seeing me as a, how can I say, as a

> 'hand of the generalist teacher', but more important than I used to be. (Teacher Ri).

From this context it can be said that CLIL has provided the language teachers with a new experience which they may include within their professional profiles. On a more negative note, the disadvantages of CLIL for language teachers in the national context were mentioned such as lack of financial incentives, extra workload, and lack of training and materials.

> This year I did the CLIL project in the generalist teacher's class. But to do that I had to spend my free time without being paid. Another aspect to reflect on is the fact that CLIL projects are very hardworking and time consuming. The lack of CLIL teacher-training programmes for English teachers or other subject teachers is also a problem because it is not easy to understand the right concept of it. FLUP and other language institutions can play an important role by doing this. Now I can say that I feel prepared to teach CLIL lessons but I took a year to learn it. Until CLIL training for teachers and materials are easily available, I think it will be very difficult for any teacher with or without experience to implement this project voluntarily and on their own initiative. (Teacher CDw).

Here the teacher has problematised CLIL in her context and in doing so put forward constraints on practice and possible solutions based on her newly acquired knowledge. She has addressed key issues in implementation in any context. The mention of a lack of financial incentives by this teacher relates to her not being paid for the CLIL lessons she gave in the generalist teacher's class. Conducting the CLIL projects within the generalist teacher's class time had been established as one of the requirements within the boundaries of the study. Had this not been possible, the teacher could have given her CLIL lessons during her language lesson time. This happened in School R though in that context the content of Social Studies had been divided between the language teacher and the generalist teacher affording the latter more time to focus on less content. The case of Teacher C was also different as she was not working in a primary school, but needed to conduct part of her practicum there. Two of the teachers were not being paid for their CLIL work just as all other student-teachers are not paid during their practicum. Where difficulties were encountered it appeared that teachers engaged in more higher level reflection as they grappled with the circumstances, often coming out of them with solutions if not for themselves, for others.

The points raised by the teachers above are pertinent, and ones mentioned in the literature about implementation and studies which have taken into account teachers' perspectives on CLIL experiences (see Mehisto *et al.*, 2008: 22; Kiely, 2011: 165; Massler, 2012; Hunt *et al.*, 2009). The three teachers were essentially working alone in planning and producing materials for the CLIL lessons which they found time-consuming. Generalist teachers provided support, but this was mainly verbal. Given that the three teachers were inexperienced at CLIL, this was indeed a heavy workload and one which demanded a great deal of responsibility. Teachers also found that CLIL was costly. They were spending more of their own money on materials for their lessons. It is clear that CLIL needs more than moral support; it needs teachers within national contexts who pool materials created for curriculum areas in that context. It is important that in every context where CLIL is implemented that preparation time and costs for materials are taken into consideration. If not, ensuring quality CLIL provision may seem too much of a burden rather than an interesting challenge.

Lessons

In the Action-phase, the sub-category, 'lessons' was common to two cases. In these cases the issue of time was mentioned as a constraint in terms of length of lesson with both teachers indicating the amount they were allocated as not being enough.

> Another difficulty has been the length of the lessons- 45 minutes, that isn't enough. When students are really engaged and focused it is time to finish the lesson. (Teacher Rq).

Other time-related issues specific to cases related to the allocation of less time during lessons to language preparation of students.

Protocols and school curriculum

Other sub-categories were specific to individual cases in the Action-phase. Those that emerged for Teacher C were 'protocols' with more schools which would allow for more CLIL teaching and good conditions for teacher education; and 'school curriculum' in terms of the teacher's improved awareness of curricular needs of students in the year group they were teaching, and their needs in later years.

Understanding requirements for implementation

This sub-category is very broad and encompasses a number of themes already mentioned. It was a category common to two cases in the Post-phase though with different issues mentioned in each. One case focused on requirements for implementing CLIL namely the school community's understanding of it and support from the generalist teacher. The other case focused on initial concerns which were dismissed in practice, and constraints on implementation which came about in her context. In addition, she also mentioned the low status of primary English language teachers and the non-compulsory nature of English in primary schools in Portugal.

> I still think that this kind of project will be difficult to implement in some public school for several reasons. Firstly, because English is not compulsory, so not all students will attend English classes as an enrichment activity. A CLIL project implies that the contents are not taught in their mother tongue. It will not be possible nor allowed by the school community unless all pupils are attending English classes. (Teacher CDw).

It is evident that the teachers saw their teaching contexts as greatly influencing the progress and success of their CLIL projects. This was detected before the projects began, manifested itself in practice where the generalist teacher played a pivotal role in facilitating the process as well as limiting it, though these apprehensions were lessened once practice was underway. The issue of collaboration between content and language teachers as key to facilitating success in CLIL projects has been well-documented (see Pavón and Ellison, 2013; Pavón *et al*., 2014). Pavón and Ellison (2013: 74) mention the importance of "collegiality, to mutually support and learn *from* and *with* each other". Lorenzo *et al*. (2010: 433) suggest that this has led to "a heightened appreciation of the interface between content and language". The teachers acknowledged the expertise of the generalist teachers regarding subject content and valued their ideas with regard to further planning and in terms of student capacity to understand the amount and type of input given. The CLIL language teachers were privy to this when observing the generalist teachers teaching Social Studies. It is also worth mentioning that in primary education perhaps more evident than in other levels, the focus in lessons is on language as much as content. The concept of 'language across the curriculum' is extremely important here. This was emphasised by the comments of the generalist teacher about one of Teacher C's early CLIL lessons. She mentioned that Teacher C should have focused more on language. The generalist teacher was emphasising Teacher C's role as

language as well as content teacher. It some contexts where CLIL was introduced at higher levels it was evidenced that it brought about unexpected, but fruitful collaboration between L1 language teachers and foreign language teachers (see Pavón *et al*., 2014).

A further indication of support and endorsement for the project was that tests for Social Studies included sections in English. All teachers were genuinely interested in this means of evaluating the projects. Early positive test results were perceived as stimulus for project continuation. Practice, too, revealed its unique themes relating to lessons and the financial cost of CLIL. Stakeholder views within each context were seen as positive despite some initial concerns. By the end of the experience, perspectives reveal what is required to implement CLIL from the point of view of language teachers.

Types of reflection on context

With regard to 'context', all three teachers engaged in mainly Type 0 reflection in the Pre- and Post-phases (see Table 6). This arose mainly from description of their contexts and the reactions of people in them.

TEACHER	PRE-PHASE	ACTION-PHASE	POST-PHASE	KEY
C	**9x0** 2x1	**4x0** 2x1 3x2	**1x0** **1x1**	Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory.
R	**9x0** 1x1 1x2	5x0 **6x1**	**7x0** 1x1 1x2	
CD	**10x0** 1x1	2x0 **8x1** 2x2	4x0 1x1 2x2 **6x3**	

Table 6. Reflection types per phase: context

In the Action-phase, two cases were Type 1 (one marginally), and the other case was Type 0. There was evidence of Type 2 in two cases and no evidence of Type 3 reflection in any of the cases. The tendency to Type 1 reflection suggests that practice for these teachers brought about low level analysis and explanation of the ways in which their contexts were facilitating or limiting it. There was a tendency to mention contextual restrictions particularly regarding time and amount of CLIL allowed when

lessons were not successful in the teacher's view. In the Post-phase, there was a range of majority types over the cases. These were Type 0 and 1 in one case, Type 0 in another and Type 3 in the other. Where Type 0 was the tendency, this was revealed in descriptions of what happened during practice. Context was seen as a determining factor which controlled practice which teachers could do little about. The case where the majority type of reflection was Type 3 likely had this tendency because of the number of constraints on the project within this particular school which brought about more problematising of conditions about the complexity of implementation.

1.2. Understanding of CLIL

The deductive category, 'understanding of CLIL' is divided into sub-categories which reveal the scope of teachers' thinking about the educational approach (see Table 7 for a list of sub-categories and Appendix 23 for a full list of themes that each category contains). Besides teachers' summary definitions of CLIL, it covers how their understanding of it came about and what facilitated this. This extends to what incorporates CLIL in the broadest sense with other themes warranting sub-categories of their own. The accumulation of sub-categories may be interpreted as a broadening of definitions brought about through practice and reflection.

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
• Definition • Process of understanding • Benefits for learners	• Definition • Improving CLIL • Process of understanding • Appropriate conditions for CLIL • Awareness of methodology • Understanding scope and range of CLIL • Benefits for students • Teacher confidence	• Definition • Process of understanding • Appropriate conditions for CLIL • Awareness of methodology • Understanding scope and range of CLIL provision • Benefits to students

Table 7. Sub-categories for deductive category: understanding of CLIL

The sub-categories vary across cases. The largest number was detected for Teacher CD, interestingly the case where there was least CLIL activity. The sub-categories of 'definition' and 'process of understanding' were present in all three cases in the Pre- and Action-phases, and 'definition' in two cases in the Post-phase.

Definition

In the Pre-phase, it was evident in two cases that teachers had understood the basic premise of CLIL of learning subjects through another language and that content was the main driver. The example from Teacher C illustrates this:

> For me CLIL is not teaching a language, but teaching a subject through a language. As teachers we can teach Maths, Science or Geography by using a foreign language, so that the students learn about a topic while learning and using another language. (Teacher Cq).

By saying what CLIL is not, Teacher C has engaged in low-level analysis (Type 1 reflection), and has problematised CLIL as well as involved herself in the process. This is what makes this definition different from the straightforward descriptions of CLIL of the other teachers.

One case refers to cross-curricular language teaching and another implies that it is content-based teaching with the language teacher teaching topics from other subject areas. This is not surprising given the scope and range of types that may be included under the umbrella term of CLIL which for some encompasses both cross-curricular language teaching and content-based language teaching as more language-focused CLIL.

> I think I have been involved in CLIL before by doing some cross-curricular activities that were guided by a specific theme and were done in English. (Teacher Rq).

> CLIL is content and language integrated learning. CLIL is when a language teacher teaches some topics form subjects such as Geography, Maths, History. (Teacher CDq).

The powerpoint presentations prepared by two of the teachers for the meetings with parents before their projects began, as well as a letter written by Teacher CD to the director of the school cluster in which she worked, revealed their broad theoretical understanding of something they considered an innovative new approach to teaching using the English language. This included awareness of European directives, methodological characteristics – content-focused instruction, real and natural contexts for learning, and advantages for students. One of the teachers presented it as new

innovative way of teaching English though her presentation suggested that it was content-focused teaching through the medium of the English language.

In the Action-phase one of the teachers shed further light on her previous cross-curricular language teaching, dismissing it as something that was not CLIL. She clarifies her earlier misunderstanding by explaining that her previous experience had involved the students in double exposure to content in two language codes in separate content and language lessons which she now realised was not CLIL.

> The first idea that came up to my mind was: "*But, I have been doing CLIL all this time*" Then I realised that what I have been doing is English across the Curriculum and teaching almost the same topics as the generalist's teachers but in a different language. I followed the generalist teachers' plans and taught the same topics in English. Students were exposed to the same theme twice in two different languages. Now students are learning a specific topic only once in a foreign language. Students learn the chosen theme only in the English classes. (Teacher Rq).

In the interview conducted in the Action-phase she provided further clarification.

> They are just learning the content in English. They are used to having the content in Portuguese with the generalist teacher and then I was doing some activities in English, but they already knew the content in Portuguese. Now they don't or they have some idea and are just learning in English. (Teacher Ri).

That CLIL is teaching content in only one language code once was also alluded to by another teacher.

> Yes, but if M (generalist) talked about that, this wouldn't be new. This is really new so they are learning something. (Teacher Cs).

These two teachers have understood what Coyle (2006: 5) stresses as one of the key characteristics of CLIL which is also a source of much confusion. It appears that through reflecting on their previous and current practice, the teachers were able to unravel this mystery. In doing so they engaged in low-level analysis where they established what CLIL is and what it is not, but there was no attempt to explore this in any more depth. Perhaps there was no need to at this point. The simple realisation was enough.

By the Action-phase, the idea of integration and more dual focus of content and language seemed to have been understood. In two cases, the idea of CLIL as naturalistic learning in real contexts was mentioned. This is a sign of teachers' understanding of influential theories related to CLIL, in this case SLA and the Natural Approach (Krashen and Terrell, 1983).

In the two cases where 'definition' is present in the Post-phase, the basic premise of CLIL as teaching subject content through a foreign language was reiterated as well as the idea of integration of content and language. One of the cases also emphasised naturalistic learning in real-life situations in CLIL lessons. This was done in very simple terms which hint at the basic principles of CLIL, but do not surface them and is therefore consistent with Type 1 reflection. It is the teacher's developing personal practical theory of CLIL.

> The basis of CLIL – *Content Language Integrated Learning,* is to teach a specific content from the students' curriculum with and through a foreign language, integrating content and language in the teaching and learning process. Being a language teacher I could teach my students the language through the content and being also a subject teacher I could teach the content through a language that is not the students' mother tongue. This way, learners had the opportunity to learn a foreign language in a natural way and sometimes with real-life situations at the same time they were learning the content. (Teacher Rw).

A similar observation about definitions which include 'integration' of content and language was made in the study of Infante *et al*. (2009) with experienced primary CLIL teachers in the Italian context. Also in the study by these researchers, the way that definitions were "linguistically given" was noted, i.e., the use of the term 'content' before 'language' or vice versa (*Ibid*.: 160). For Viebrock (2012) this is a reflection of the mindsets of individual teachers. She suggests that the majority of teachers view CLIL as having a content-focused bias though there are indeed teachers who view it as "the expansion of language teaching" (*Ibid*.: 82). However, in her context of study, Germany, where teachers are trained to teach two subjects which could be a foreign language and another subject, teachers may well have different mindsets which are not subject-restricted.

One of the three teachers proclaimed CLIL as a new, unique approach to teaching and provided more details related to the role of language in CLIL, non-duplication of teaching the same curricular content in different language codes, and the focus on content and concepts. She also provided an opinion as to who is best placed to teach in CLIL contexts stating that she believed that language teachers were more methodologically prepared for this role. She is also aware that her definition of CLIL is not too complex.

> CLIL - Content and Language Integrated Learning- is the acronym used to describe a new approach, in which a language is used to teach certain subjects, such as Science, History, and Geography among others, in the curriculum and not for teaching the language itself. It can be best defined as content language integrated learning in the curriculum. The contents of the curriculum subjects are taught in a foreign language and not re-taught by the generalist teacher in the mother language. So it is not bilingual. You don't need to be a language teacher to teach CLIL, although I think that a language teacher is better prepared to do that in terms of methodologies and activities he/she can use. As a result of my practice, at this point, I think CLIL is much more than this simple definition. (Teacher CDw).

It is interesting that the teacher holds an opinion on her own her definition that is not too high. She has actually provided a very comprehensive definition of CLIL which reveals her developing understanding of it. She has done this by stating what CLIL is not which is evidence of her mulling over the phenomenon and perhaps recalling her own practice. She provides a reasoned opinion on who is best placed to teach CLIL which is a sign of her confidence in her own judgement of the competences required. It could be said that this level of reflection is positioned towards Type 3.

Process of understanding

The process of understanding mentioned in all three cases in the Pre-phase related to teacher preparation. All teachers read about CLIL and consulted the national programmes for Social Studies ("Estudo do Meio"). Two teachers discussed this with the school community and one with the generalist teacher. One consulted other school programmes and another, sites on the Internet which gave examples of materials and means to teach CLIL. In the Action-phase, all three teachers alluded to different processes of gaining understanding which involved other teachers, one suggesting this could be improved by observing CLIL in practice elsewhere and sharing experiences with those engaged in it, and another through her own practice. All of these were

reiterated in the Post-phase by one teacher who also specified the details of how she learnt about her own practice – through videos of lessons, lesson plans and scaffolding strategies.

Benefits to learners

In one case the teacher's reading about CLIL had taught her about the benefits to learners in terms of richer, more meaningful content leading to increased motivation, a higher language level, thinking skills development, and preparation for future study and working life. This was articulated as a natural way of learning language and the face of ELT in the future. It is clear that a new perspective is beginning to take shape.

> After reading about CLIL I understood that CLIL is the future for English Language because there are a lot of benefits teaching English this way. Apart from the preparation for both study and working life, CLIL will increase pupil's motivation and language level because they will use the language to learn and not only learn how to use the language. It is in fact a more natural way of learning it. (Teacher CDq).

This category is also present in the Post-phase reflections of the same teacher who reiterates these advantages as well as the development of cultural awareness, internationalisation, improved engagement of weaker students, errors as natural to learning, improved fluency, ability to think in different languages, and a renewed interest in learning English. Some of these could be a reflection on her own practice especially those related to learners, though others such as internationalisation and cultural awareness relate to the possible potential of CLIL that this teacher envisages, and an interest for other learners beyond her own classroom. This is a broad range of benefits which reflects those commonly cited in the literature.

> Besides all the advantages already described above I would advise other student-teachers and school communities to try CLIL projects because it could be a way to motivate students to learn language through content. There are so many students, especially teenagers who don't like English because they have difficulties with the language. Using CLIL, teachers could raise their motivation and engagement. Learning is improved through increased motivation and the study of natural language seen in context. When learners are interested in a topic they are motivated to acquire language to communicate. Students will not feel so frustrated in CLIL lessons because errors are seen as a natural part of language learning. Students will develop fluency in English by using English to communicate for a variety of purposes. The focus would not be on grammar or

> accuracy, although this is important, but on the content and concepts. The language acquisition will be done gradually and in a more natural way. The context will be richer and more meaningful. Above all I would recommend CLIL lessons because I think it will prepare students better for both study and working life. (Teacher CDw).

The teacher has elaborated on the benefits she envisages CLIL as providing students. Her reflection reveals a widening scope of thought and awareness of underlying principles and practice of language learning. She focuses a lot on language acquisition and use in CLIL, setting it against a formal focus on grammatical accuracy common to traditional foreign language lessons. She provides multiple justifications for adopting CLIL which have likely emanated from the confidence that her own practice has provided her with. She clearly sees the potential of CLIL for others which is emphasised by her more objective, impersonal stance. This is an illustration of Type 3 reflection.

Scope and range of CLIL

In one case the 'scope and range of CLIL' was detected in the Action-phase with regard to its potential in other subject areas of the primary curriculum and accessibility for all types of learners.

> I've never thought of teaching a content with and through a foreign language, because I thought it was difficult and, honestly, quite impossible. I've never thought that there are already private schools that do the same for a couple of years. For me that was just for bright students.
> First of all, having read about the subject made me think and realise that it was something possible. Then I found out that CLIL lessons are already done in some parts of the world. Finally, and after reading a lot of articles about it online and in books, I felt curiosity in trying, and see the results. (Teacher Cw).

This teacher has come to a realisation that her initial beliefs about this type of teaching were wrong. She also confesses her ignorance of where and for whom CLIL was a reality around the world. Her comments are not atypical of someone living within this national context where CLIL activity is on a very small scale. Her new understanding of CLIL brought about from her research reveal her motivation to experiment and a broadening of her views on teaching which positions her reflection towards Type 2.

The same sub-category was detected in another case during the Post-phase where CLIL's accessibility for all learners, not just an elite group, was emphasised, as well as

a broader view of CLIL connecting it with real world demands and communicative competences in a technological era.

> In the beginning I thought that CLIL was a kind of bilingual teaching, very common here in Portugal in schools of "elite". These schools are known for the intellectual abilities of their students as well as for the financial conditions of parents. (…) The CLIL approach is a way of connecting the reality of the school with the reality of the world outside. The impact of globalization and the increasing use of technology highlighted the need for better linguistic and communicative competence. (Teacher CDw).

The misconception that CLIL is only for an elite is quite common especially in contexts such as the Portuguese one where the nearest thing to it are fee-paying international schools many of which have been in operation for decades and have perpetuated the idea that learning through other languages is the prerogative of the wealthy. According to Marsh (2000: 9) mainstreaming CLIL can help to redress this imbalance, "CLIL offers us all an opportunity to dismantle such legacies of the past. It provides all youngsters, regardless of social and economic positioning, the opportunity to acquire and learn additional languages in a meaningful way".

Appropriate conditions for CLIL

In the Action-phase, two teachers indicate what they think are 'appropriate conditions for CLIL' with their understanding of what is needed to make it work effectively. These are time, scope of subjects, and support of the school community. Their comments could be either a result of the difficulties experienced in their practice or their confidence in their understanding and ability to teach CLIL. The study by Infante *et al*. (2009) revealed that teachers reconceptualised CLIL as a result of "a series of obstacles and restrictions" faced during practice and the mechanisms with which these were overcome (*Ibid*.: 159).

By the Post-phase the same two cases indicated what they believed to be the requirements of CLIL. Both mentioned collaboration of the generalist teacher, and one related to the need to make English compulsory in primary schools and develop communities of practice with stakeholders.

> As far as the school communities are concerned, I think they should take on the challenge of CLIL in its different forms and share successes and problems having teachers, learners, directors and parents working together. If schools have no tradition of the CLIL practice, the first step should be to bring together a group to share ideas and to explore how CLIL might happen in the chosen school. I think that a good way to start is to make English a subject of the primary curriculum, make it compulsory and let the generalist teacher (the subject teacher) and the language teacher work alongside by planning together and organising the work as a team as if they were only one. These two teachers could work as a team following the same plan, the same methodology and by cooperating they could complement each other. (Teacher Rw).

Here the teacher has synthesised and applied her knowledge and experience of CLIL to articulate a series of steps for implementation and collaboration. It is a confident assertion of a belief in the approach and a conviction that it is possible if communities work together. It illustrates Type 3 reflection.

Awareness of methodology

Teachers also indicated their developing methodological awareness during the Action-phase, in particular the need to make tasks and materials linguistically and cognitively demanding yet accessible by using scaffolding strategies and repetition of language in subsequent lessons.

> I would choose a full topic and I would like to teach them everything about that topic and see at the end if they would be able to speak and write about what they have learned. I would have the time to develop materials and varied tasks, which would be at the same time linguistically accessible and cognitively demanding. I would use a lot of visuals, presentations to facilitate Ss understanding and comprehension of the content. With time, the language needed to communicate would be repeated in different ways and easily acquired. (Teacher CDq).

This reflection is an indication of what constitutes a more ideal version of CLIL for this teacher. This was brought about as a result of the constraints on her practice in which she had not been able to do all of what she mentions above. She shows that she knows what is possible if the conditions are right. This reveals a higher level of analysis through frequent hypothesising and illustrates Type 2 reflection. She does not provide reasons for why she would do the things she suggests. Maybe she has assumed this is obvious or perhaps she is not fully aware and is simply reciting from a mental checklist of technical operations which she knows would be effective.

The same teacher mentioned other issues related to methodology, in particular the difficulty she was encountering when preparing tasks and materials with a dual focus on cognition and language whilst maintaining an appropriate degree of challenge. This reveals an awareness of the complexity of CLIL methodology and the 'conflict' between planning for language and cognition, an unfamiliar dilemma for this language teacher. A misunderstanding of CLIL methodology was also identified during practice, that CLIL also demanded communicative pedagogy as opposed to a purely transmission approach.

> Now, and for example, when I heard about CLIL, I thought it wasn't communicative because teaching scientific topics, …. it's not communicative. Now, I'm changing my opinion and I think that we could teach it and then integrate the science context in a language lesson and it would be more communicative. (Teacher CDi).

This can be attributed to the teacher's practice where she could see the need to provide opportunities for students to communicate. This same teacher suggests a means to improve CLIL by blending features of language and content lessons which is an indication of a developing understanding of CLIL methodology in practice.

> However at this point I think it could be more effective if it was a mixture of a language lesson and a content lesson. We could teach Ss, for example, science topics, experiments but at the same time reading stories, doing games and turn the lessons more enjoyable. A cross-curricular approach is for me a good way of doing both. (Teacher CDq).

The sub-categories illustrated the growth in teachers' understanding of CLIL over the three phases. This went from very simple definitions and confusion over what CLIL is, to better clarity in practice and awareness of the requirements for effective CLIL, and the scope of its potential. However, despite more details emerging in practice, the definitions do not all indicate an in-depth knowledge of the principles behind it. These were not always sufficiently surfaced. One reason for this could be that the data-gathering tools were too specific in their question format or provided limited space for lengthier reflection. That said, the teachers were free to express their understanding in the final written reflection on the CLIL experience. In addition, the division of the deductive categories may have withdrawn reflections into other areas such is the over-lapping nature of the foci. All may be interpreted as an understanding of CLIL.

Types of reflection on understanding of CLIL

In the Pre-phase, there was evidence of Type 0 in the reflections of all three teachers related to understanding of CLIL. This is not in a majority in all cases and numbers of instances are low (see Table 8). The teachers' understanding was expressed in simple definitions of CLIL or descriptions of the process of their understanding through recounting actions involved in preparing for the CLIL projects. There is evidence of Type 0 and Type 1 in the reflections of two teachers and Types 0 and 3 in the other. Where there was evidence of Type 3, it was related to benefits of students.

TEACHER	PRE-PHASE	ACTION-PHASE	POST-PHASE	KEY
C	**1x0** **1x1**	3x1 **5x2** 1x3	---	Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory.
R	**2x0** 1x1	2x1 **3x2**	**1x0** **1x2** **1x3**	
CD	**1x0** **1x3**	2x1 **4x2** **4x3**	**3x1** 1x2 2x3	

Table 8. Reflection types per phase: understanding of CLIL

In the Action-phase, there was no evidence of Type 0 in any case. The majority Type in this phase is Type 2, and in one case there were as many incidences of Type 3. However, there was variation in types of reflection across the stages of this phase. In early action it was Type 2. During the lesson sequences of the Action-phase it was Type 1, and by the late Action-phase it was Type 2 in two cases and Type 3 in one. The preponderance of Type 2 in the early action phase is indicative of the first realisation of what CLIL is in practice which brought about higher level analysis of their actions as well as frustrations and perplexity as awareness developed of what CLIL was and how it could operate if conditions were better. Thus, more sub-categories were detected during this phase such as 'improving CLIL', 'appropriate conditions for CLIL', 'understanding scope and range of CLIL', and 'awareness of methodology'.

In the reflection on lesson sequences in the Action-phase there were very few comments in which teachers directly addressed their understanding of CLIL although this was

evident in their actions. Where there was reflection on it during the sequences it was Type 1. Teachers' attention was more focused on their teaching and methodology, not so much on explicit definitions or theory of CLIL. By the late Action-phase, Types 1, 2 and 3 are evident and included in definitions which range from simple to more elaborate. In all cases, these are more detailed than those of the Pre-phase.

In the Post-phase it was not possible to determine a majority type of reflection across cases as in one case there were no direct comments on it. One case had a majority Type 1 and the other case the same number of Types 0, 2 and 3. However, what could be said is that the wider distance of the Post-phase to action and the less restrictive nature of the final written reflection led one teacher (Teacher CD) to a more principled and evaluative stance which positioned her both within and outside the experience and led her to discuss the broader potential of CLIL. This may be compared to the shorter 'summary' she wrote at the end of the Action-phase.

1.3. Methodology

This category refers to the teachers' reflections on specific methodological aspects of teaching CLIL lessons, in particular their planning, lesson aims, choice of techniques, design of materials and tasks to suit students' needs, and their actual delivery of lessons. There is a more uniform appearance of sub-categories within and across cases (see Table 9 for a list of sub-categories and Appendix 29 for a full list of themes that each category contains). This is mainly due to the data-gathering tools which guided teachers' to reflect on specific areas of methodology.

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
• Intentions for Scaffolding • Adjusting practice	• Planning • Delivery • Strengths of lessons • Weaknesses of lessons • Materials • Weaknesses of materials	• Planning • Materials

Table 9. Sub-categories for deductive category: methodology

Intentions for scaffolding and adjusting practice

In the Pre-phase, all teachers reflected on how they would support learning through scaffolding strategies, and how they would adjust their practice for the CLIL lessons.

They had been specifically asked about these areas in the Pre-CLIL practice questionnaire in November, and had discussed scaffolding learning in seminars at FLUP. One teacher indicated her intention to diversify methods as well as strategies, whereas the other two teachers specified which strategies they intended to use. In these cases, the teachers mentioned visuals, technology, repetition of language items for oral reproduction, and providing language support.

> Although I'll teach a content, I'll do it in a foreign language, so I'll have to use a lot of visuals and questions/answers, like in a language lesson. The main difference is that I'm not going to focus on language per se. I'll focus on the content and on acquiring new knowledge about specific topics. (Teacher Cq).

> I will try to diversify my methods and forms of classroom teaching in order to fulfil both content and language. I will put students in real-life situations where they will have not only to share their experiences and knowledge but also to think, try, experiment and use. By doing this I will try to teach them the content and provide a based language acquisition. Although students might learn the language slowly they will do it in a natural way. I would also like to explore the cultural and social dimensions that CLIL can offer. (Teacher Rq).

Both teachers outlined their intentions for their CLIL lessons and rationale for these though to different degrees. Teacher R provided more extended justification for her future actions which included the process of learning which is missing from the reflection of Teacher C whose reflection revealed a more straightforward technical treatment of methodology. In the former there was evidence of Type 2 reflection. In Teacher R's reflection there is an indication that perhaps the teacher's language lessons did not involve putting students in "real-life situations", and her understanding that CLIL should do this. She had understood that the focus in CLIL lessons is on content not language which is acquired naturally in time and is not taught. This is indeed how many view the role of language in CLIL as part of a 'natural approach' (see Marsh, 2000: 3; Coonan, 2005)

Teachers differed in their intentions to adjust their current practice for the CLIL context. These related to the position of language in the CLIL lessons. Besides the above teacher's intention to provide for more natural acquisition of language, another focused on the language support that she would provide.

> The main difference will be the language support that I'll have to give them. If I expect them to speak and answer some questions in English, I'll have to give them structured sentences so that they can talk. (Teacher Cq).

This teacher is conscious of the importance of language in CLIL in terms of teacher input and student output. She is aware that all of this needs to be scaffolded. She has also understood that a CLIL lesson is not a language lesson. Language is not the subject, but the means to access and express understanding of content. However, there is an indication that language cannot be ignored. It will be provided, but as support not as the focus of the lesson. The teacher is aware of the specific type of language students will need and how to give it to them. Here she may well have been drawing on her language teacher competences and knowledge of students' needs for communication in language lessons.

In the Action-phase, sub-categories identified related to 'planning', 'delivery' of lessons (actual teaching) which is divided into 'strengths' and 'weaknesses' identified by teachers, and 'materials'. These, too, were influenced by data-gathering tools and the post-CLIL lesson reflection prompts which guided teachers' written reflections on their lessons, and the films of their lessons which they had access to.

Planning

In 'planning', it was evident in all three cases that teachers were highly conscious of what was required to plan for CLIL lessons in terms of lesson aims for the 4Cs, coherence of lesson stages and progressive degree of difficulty throughout the lesson, scaffolding strategies to support language and learning, the need to balance linguistic and cognitive demands, content, and the development of cognition. It could be said that the 4Cs framework significantly influenced teachers' planning and contributed to making CLIL seem different from foreign language teaching. Teachers were highly attuned to this difference. They were unused to planning in this depth for their language lessons. Planning for CLIL was seen as a 'pleasurable' challenge. This was evidenced by one teacher mentioning that she enjoyed planning for cognition as it was something new that she thought she was learning from.

> What I feel is that when I'm planning the lessons there are pros and cons, good things and bad things. First, while I'm looking for material and things to do and

> especially focusing on content and thinking skills and how they can think instead of just giving them content. That part is really interesting. I find it very exciting. It's something new. It's something that makes me think, too. (Teacher Csem).

During an early seminar, one teacher's remark emphasised how conscious she had become of planning for cognition.

> Now I ask myself: How can I make them think? That's new. (Teacher CDsem).

However, there were drawbacks to planning. Anticipating and articulating language demands of the CLIL lessons was a struggle.

> Yes, but just language although I can distinguish more or less between 'language of' and 'language for', for me, it's just language, something they have to use, or I have to use. For me it's really hard to put it on paper. Of course I know that I have language, they need the language, that's why when they need it I want to give it to them and when they are learning, I know that they are learning, so… but, … it's just the difficult part. (Teacher Csem).

Here we can sense the tension in the teacher's view of language which she sees as something which does not need to be explained, and how complex it is in CLIL. It is interesting to consider whether this was the result of a lack of language competence on the part of the teacher herself, lack of understanding of the 4Cs for a given CLIL class, or that planning was indeed a chore. From the teacher's point of view, articulating aims for communication was a genuine difficulty. This, she admitted during a seminar, as well as the chore of planning which was echoed by the other two teachers. These points are an indication that the teachers saw planning as involving a change in their routine practice brought about by the demands of a new methodological approach. Getting over the idea to teachers that they have to change their methodology is a difficult but necessary one in CLIL (see Marsh, 2006; Pavón and Ellison, 2013). None of the teachers were used to planning for language of, for and through learning, not even for their language lessons. It could be said that they took their knowledge of the language and expertise as language teachers for granted, and that attempting to surface this was seen as an unnecessary chore.

All teachers complied with requirements for lesson planning which were to produce a mind map of the lesson sequence coverage of the content theme related to the 4Cs, preliminary information including general and specific aims for the 4Cs including lists of language of, for and through learning, learning outcomes, a lesson procedure consisting of an indication of time, interaction patterns of students and teacher, procedure, procedural aims, scaffolding strategies, and materials. Despite some variation in the format of lessons and elaboration of detail, all teachers included 'tasks' or 'thinking activities'. Early plans revealed some difficulty in articulating aims for 4Cs and distinguishing between language of, for, through learning. Field-notes by the author corresponded to teachers' comments about planning, and reveal that teachers had taken note as they worked on improving their practice of planning based on suggestions given (for an example of a CLIL lesson by Teacher R, see Appendix 30, for Teacher CD, see Appendix 31, and for a lesson from Teacher C, see Appendix 18)

For one teacher there was evidence of her awareness of the requirements of the primary curriculum, medium-term planning and the scope of content within this planning. This may be attributed to the extent of her CLIL experience in contrast with the more limiting experiences afforded the teachers in the other cases.

> And I checked the Estudo do Meio programme and I know they connect animals to body features with the actions like swim and run and fly, but they don't teach it in a deep way. Body feature is the most important part because they say a bird has wings because it can fly. It's an air animal. (Teacher Rs).

There were signs that her CLIL experience was influencing her ability to evaluate the depth and difficulty of certain types of content in the primary curriculum.

By the Post-phase teachers had consolidated their ideas about planning. Their reflections revealed a good awareness of what was required for CLIL lessons. They expressed this assertively and with the confidence of those who know from practice what it entails. The detail of their reflections on this differed from all-encompassing statements about objectives, methodology and students' needs, which could be applied to any pedagogic approach, to those which are specific to CLIL lessons such as the relevance of topics, content focus, scaffolding, level of challenge, thinking skills, balancing cognitive and linguistic demands, and those of the CLIL teacher such as

planning of teacher language, consciousness of how to explain concepts, as well as diversifying and experimenting with methods to increase motivation. The stance with which teachers mentioned this also varied, from more personal learning to more objective advice.

> While planning the lessons I tried to fulfill both content and language since I was the content and the language teacher and by doing this I put the students not only sharing their knowledge and experiences, but also trying, experimenting and using. I wanted learners to learn content and language in a natural way and let them explore the cultural and social dimensions that CLIL can offer. (Teacher Rw).

Here Teacher R has reiterated the same points she mentioned as her intentions in the Pre-phase. It is unfortunate that she did not take this opportunity to recall how she managed to fulfill these 'objectives'. Perhaps she felt that she had reflected enough on her lessons during the cycles of reflection that these brought about. Her reflection remains locked in Type 2, only here in the Post-phase we can be excused for thinking that it resonates less than it did in the Pre-phase when it seemed like an interesting expression of intent said with enthusiasm and curiosity.

The reflection below provides a lot of detail on a wide range of technical features of CLIL lessons. It is written with an objective stance as though giving advice to future teachers of CLIL. The teacher has also supported her advice with rationale though this is done on a point-for-point basis. That said, it is clear that she has learned a great deal about CLIL methodology. This could be considered evidence of Type 2 reflection.

> The focus in CLIL lessons should be on the content. It is the content that defines the language to be taught. Teachers need to plan their own language use as well as the language they wish to teach the children in CLIL lessons. They must simplify the language, through substitution tables, and use appropriate resources to ensure understanding of the content being taught. During the lessons the linguistic and the cognitive demands must be balanced. They cannot be too difficult nor to easy, but cognitively challenging.
> The materials must be appealing and the activities must be appropriate to pupils' age and level. They should be challenging in terms of cognitive demands. The use of technology and *realia* are very important to foster pupils' motivation and involvement.
> The aspects of cognition are also very important in CLIL lessons. The activities must lead pupils to moments of thinking in order to develop pupils' thinking skills.

> The scaffolding strategies should be carefully planned to support pupils during the process of learning. Gradually pupils should be able to become more independent. (Teacher CDw).

One teacher articulated her understanding of the planning process in a series of steps which she regularly followed. This is made very personal through the use of questions which she asked herself during the process and her strategy of using powerpoint presentations to frame her lessons. It reveals that she has a good grasp of the requirements of CLIL lessons and managed to incorporate this into a personal procedure which accounted for all elements. Her inclusion of questions she asks herself during this procedure is evidence of a dialogic stance typical of Type 2 reflection. It is also an indication that the new procedure was becoming routinised. Here we may recall Zeichner and Liston's (1996: 1) assertion that "[i]f a teacher never questions the goals and the values that guide his or her assumptions, then it is our belief that this individual is not engaged in reflective teaching." There is a danger when practices become formulaic because teachers may reflect less. Teacher C's use of self-directed questions may help to delay this.

> To prepare a lesson, first, I read the students book very well to make sure I would teach all the content that was in their coursebook of *Estudo do Meio*. Then I went online and I looked for more information that I could add to my lesson.
> Having all this information I built my MIND MAP. This helped me think and made me focus on what I really wanted to teach.
> After doing this I usually thought of how I could explain them the content:
>
> - *What kind of material can I use to make my points clear?*
> - *What kind of activities are more useful and meaningful?*
> - *Do I need worksheets? How many?*
> - *Do I need realia in my lesson?*
> - *Are they going to work in groups? Why?*
> - *Will this activity help them think?*
>
> Then I started by doing my PowerPoint Presentation with images, words and sentences that might help my students understand the lesson better. Basically the PowerPoint followed the whole lesson. It also helped me visualize the lesson and what I was going to say. Apart from these reasons, using the PPT made the lesson more interesting for the students. They really enjoyed lessons with some technology.
> While doing the PowerPoint, I also thought of possible worksheets that went along with a specific task and I made them. So all the material needed for the lesson was done while I was making the PowerPoint.

> After having the PPT done, I would write the lesson plan, following the slides in the PowerPoint. This made it easier to see and check if there was something missing in the Presentation. (Teacher Cw).

Strengths

With regard to the effectiveness of their plans in practice, teachers' reflections are divided into 'strengths' and 'weaknesses'. Common to all three cases were that teachers identified scaffolding strategies as strengths in their lessons. Scaffolding in CLIL lessons is complex because of the multiple foci – content, language, cognition, and degree of individual and shared processing (Mehisto, 2008: 109). Attention had been given to scaffolding in seminars at FLUP and teachers had been given the taxonomy of scaffolding strategies. They were thus highly conscious of it:

> I think that the scaffolding strategies were adequate enough because I used visuals and gestures to explain and to help learners to understand. I also wrote some vocabulary on the board and pointed when needed. I used simple and understandable sentences and asked questions in a way I knew students were going to understand. I also walked around the classroom and helped the groups. Moreover the different lesson stages were also thought in order to benefit knowledge acquisition. (Teacher Rw).

Here the teacher has considered her own input and how this is supported to aid understanding, the language to support students' output, her own line of questioning to facilitate this, as well as coherence within lesson staging presumably with each stage a preparation for the next. Loughran (2002: 36) cautions at the danger of assuming that teachers are engaged in effective reflection when they are simply rationalising their practice. There is some indication that Teacher R is doing that with the one-to-one correspondence between her actions and rationale. This is evidence of Type 1 reflection.

She continues in a similar vein when indicating the importance of language scaffolding for the progressively more difficult tasks and the need to balance these demands.

> I think I provided the language support either on the board or in the worksheets. The language was supported on the board with a substitution table (written language/structures) and on the worksheets by having the pictures next to the word. During the lessons both linguistic and cognitive demands went from low to high since I helped students providing vocabulary and structures, explaining using examples and guiding the thinking activities. Learners got into the topic by learning some vocabulary and structures, practiced orally and finally were asked to apply their knowledge/to practice. (Teacher Rw).

The same teacher became aware of the need to reduce scaffolding over a series of lessons.

> I think the scaffolding was constant in the three lessons but it seemed to be less in the third lesson because the students were already feeling comfortable with the topic, the vocabulary and the structures and I think there was no need to scaffold as much as in the previous lessons where all students were learning and getting used to the new vocabulary, the structures and the topic. (Teacher Rs).

The teacher reveals a very good awareness of scaffolding in CLIL, what forms this can take, how this can be applied and when it should be used. Her accounts above cover all of this ground concisely which became very typical of her style of writing her reflections. However, her 'economic' means of reflecting on her practice may have concealed the depth of her thinking.

During observation of their lessons, the author did notice a high degree of attention to scaffolding and variety of strategies including gestures that accompanied instructions for learners to think. Teachers were very conscious that language should be supported. This was not surprising given that they were language teachers. When language was not sufficiently supported, they showed their awareness of it during their reflections on their practice. Awareness during practice manifested itself in impromptu mini-drills of language items or substitution tables. Urmeneta (2013) noted the attention to scaffolding strategies of the student-teacher in her study about learning to be a CLIL teacher. She links this to cycles of reflection carried out by the teacher on her practice which led her to autonomously construct means of improving it.

The strengths also mentioned by the teachers included the balance of cognitive and linguistic demands in two cases with one teacher referring to the progression from lower to higher order thinking, and the high degree of challenge in terms of abstract content.

> The first part was demanding because learners are not used to make this kind of predictions and experiments. Then the other part was very demanding because it is not an easy subject to talk about and to explain in English. It's an abstract topic. (Teacher Cs).

All teachers referred to the level of challenge in their lessons through activities that involved students in different types of thinking. They had understood that in order for

there to be learning, there has to be challenge, and crucially, support for this. One teacher's reflection captured the multiple types of challenge in CLIL lessons, of understanding content and expressing that through L2, of working with others, and being involved in practical tasks which demanded various types of thinking. She indicates that this way of working in the classroom may have forced the learners out of their comfort zones.

> I think this lesson was both demanding and challenging for learners. Demanding because they had to make an effort to get into the topic and realise what we were talking about. I saw that some of them had the need to confirm that they understood in their mother tongue. The lesson had its challenging moments too when the learners had to work in group and had to cooperate and share ideas. I tried to make the *thinking activity* a challenging one by giving them the opportunity to show what they know or at least what they think they know. My aim was to let them predict so that they would be able to compare and conclude after the following lesson when they are going to experiment and use it to learn. (Teacher Rw).

One teacher considered how her lesson could have been made more challenging.

> Perhaps I could have started the lessons by talking about life history, like wedding and being born and use this as a starting point to build a family tree. I was guided by their book, but I could have done this change. I don't know if it would work, but certainly it would be more challenging. (Teacher Cw).

Here the teacher problematises the degree of challenge in her lesson and is able to pin-point where this could have been improved. It is evidence of her consciousness of gaps in her teaching and her consideration of means to fill them. Further strengths noted by individual cases were appropriacy of aims, techniques and materials, ability to check understanding of content and language, encouraging language use, and the choice of the theme of lessons.

> As far as the aims of the lesson are concerned I can say that I helped the students understand how a food chain works and they learnt the sequence of simple food chains. Students were able to recognise the relationship among animals, and among animals and plants, and they were able to order and sequence food chains. They also identified and gave examples of different *producers, consumers* and *predators* and were able to explain simple food chains classifying and categorising the animals and the plants. (Teacher Rw).

The example above is a description of events and achievement of aims. It is evidence of Type 0 reflection. This teacher considered teacher and learner roles in the classroom

which is an indication of her understanding of the centredness in CLIL lessons. She sees CLIL lessons as being more centred on learners working together and less on the teacher.

> I introduced the topic but the whole lesson was about the learners' work and not teacher centred as I tried to act as a monitor. (Teacher Rw).

All three teachers expressed satisfaction at their choice, design and use of materials in their CLIL lessons during the Action-phase. This was probably because the effort expended in producing them was seen to be worth it in the end. The teachers did not have a ready-made set of materials to use, like many teachers involved in CLIL. All teachers acknowledged the support provided by materials with two mentioning the balance of cognitive and linguistic demands. One mentioned the potential of technology to motivate students. However, her use of this was limited by her classroom conditions.

> The use of technology in my lessons is not new but it seems that every time I use a Power Point students get more motivated and curious about it and about the lesson itself. (Teacher Rw).

In the Post-phase two teachers mentioned their use of teaching aids. Both emphasised the importance of technology and one also referred to realia. One mentioned the importance of both with regard to motivation, scaffolding learning and challenging cognition.

> The visual impact of the slide shows increased pupils' involvement and motivation. The pictures and the key sentences that I used helped them to understand the meaning very clearly and to use more English in class. Then I used real plants and vegetables and pupils were much more engaged and motivated. The activities were more meaningful and cognitively more challenging. I noticed that pupils were using more English than in the previous lessons, because I used substitution tables. At the end of each lesson I used the *Powerpoint* to summarize the content that had been taught and I think it was good for students to consolidate the content they have learned. (Teacher CDw).

Teacher CD adds texture to the description of her practice by explaining the positive effects of her strategies on students' learning. The success of her practice appears to be measured in terms of her students' success. The account contains elements of Type 2 reflection.

Weaknesses

Two teachers highlighted weaknesses though these are different for each of them. For one teacher, these related mainly to language – too much of her own voice, and too big a focus on language preparation for students including a lot of drilling. In response to the question whether drilling was necessary, she said:

> Yes, it was. They had to. Probably they do without saying the words. Ok, I was testing their knowledge too. It was funny. I speak a lot….but it's part of the lesson, too. I should have stopped …. I was surprised, too. I thought it would be just to write the names. They had the pictures on the board. I didn't know. (Teacher CDs).

In an early seminar at FLUP, this teacher expressed concern over how much of the lesson should be focused on language. This is likely due to her language teacher professional experience, and her feeling that students needed this support in order to move on. She was adopting a type of 'counterbalanced approach' (Lyster, 2007) where occasional focus on language is considered necessary to facilitate further progress. In a sense she also acknowledges this as a strength. This teacher was not providing linguistic support in prior language lessons, so felt the need (and pressure) to provide for both in the CLIL lesson.

The weaknesses noted by another teacher related to her inclusion of too much vocabulary, her lack of effective classroom management which led to excessive noise, and students' use of L1. Both teachers mentioned weaknesses in the design of some material owing to the number of operations within a single task, length and layout of worksheets. One teacher (Teacher R) articulates a solution to this.

> They didn't understand the worksheet even though I explained it was only to do one thing. This is the problem of having more than one thing on a worksheet. (Teacher CDs).
>
> I think that in the beginning I could have practiced more the verbs and made sure that they understood their meaning. Then I gave them the first worksheet, and the first task had nothing to do directly with the worksheet. I could have put just the pictures of animals on the board and let them choose from the board. And then they could have done the worksheet. Finally, another weakness of this lesson was the second worksheet. It was too long. They could have done this task with just 4 or 5 animals. The task became boring because it took a long time to do it and to give proper feedback. (Teacher Cw).

> I realise the handout I gave them was somehow confusing because the worksheet had too many activities on the same paper and students got a bit lost and didn't know what to do first. Maybe if I had chosen to put each activity in different handouts it would have been more clear and easier for them to understand. The activities were not difficult to understand or complete but the layout of the handout was confusing because it had different exercises and different steps in each exercise. (Teacher Rw).

Here both Teacher C and Teacher R frame and reframe the problems of their worksheets each in conversation with themself which leads to plausible solutions revealing new clarity on the issue. Both exhibit evidence of Type 2 reflection.

Teachers' weaknesses were noted in the author's field-notes during observation of lessons and discussed with them afterwards. In addition, another common observable weakness in lesson delivery of all three teachers was the logic of their questions which gave rise to some extreme examples such as this one asked during a lesson about food chains: "Can a carrot eat a rabbit?" One explanation could be that through such questions teachers wanted to make understanding clearer by getting learners to contemplate the illogicality of some examples. In some cases their line of questioning did not allow for deeper exploration of areas though it is doubtful that such depth would even be contemplated if the content were delivered in the mother-tongue.

The teachers' reflections during the Pre-phase provided an indication of their awareness of CLIL methodology as involving a focus on content, using the language naturally in real-world contexts, and the need to use scaffolding strategies to support learning. However, their reflections were very limited in this phase. It was only from practice that they were able to understand the key characteristics of CLIL methodology. Through their planning and lesson delivery the teachers showed awareness of the principles that CLIL promotes: centrality of content, methodological shifts brought about by the role of language as "conduit for communication and learning", and a high degree of cognitive challenge, (Coyle, 2002: 27-28), all except, perhaps the C of 'culture', in particular intercultural understanding which is not addressed to any great extent by teachers apart from at the micro level of learning together fostered in the classroom context. This may have been because they consulted the national Social Studies coursebooks and designed their materials related to this rather than obtaining them from other sources which may have included or stimulated different cultural perspectives. They were particularly alert

to cognition and developing this skill through the design of materials and tasks which took into account a balance of cognitive and linguistic demands. This was also apparent in their awareness of planning for progressive difficulty in tasks during the stages of a lesson and across sequences of lessons. Related to this is the important role of scaffolding to support content, communication and cognition. They were also conscious of the need for students to interact with one another, to learn together and communicate their understanding using English. This draws on the learning by construction and "learning by doing" (Marsh, 2000: 4) of CLIL methodology. This was reflected in the deliberate inclusion of task-oriented methodology and groupwork. It is clear that planning and giving CLIL lessons helped teachers towards a better understanding of CLIL. Interestingly, the teachers experimented with different types of lesson and lesson content involving different methods and techniques, some by choice, others not, which meant that they were constantly challenging themselves.

> My next CLIL experience will be different from the previous ones. It will be an experiment that as a teacher I never did before. I have to think of the best way of exploiting the scientific content. I will have to provide a context and elicit and provide the vocabulary and language pupils will need to use during the different stages: before, during and after the experiment. The tasks and activities have to be carefully planned according to the different stages. The scaffolding strategies have to lead pupils to understand the scientific experiment by predicting, testing and analyzing the results. (Teacher CDw).

The content of their lesson sequences was so varied as not to be from one specific area. What bound everything was their awareness of the 4Cs which provided a conceptual framework for CLIL methodology. The teachers' reflections on their weaknesses and strengths regarding planning and delivery of CLIL lessons point towards the technical side of teaching – knowing what should be done. However, their reflections also reveal their belief that these are also the right things to do and not just an obligatory checklist of 'dos'. They have gained this consciousness through trial and error during practice.

Types of reflection on methodology

There were few instances of reflection on methodology in the Pre- and Post- phases (see Table 10). In the Pre-phase, two cases showed evidence of Type 1 and one, Type 2. In this phase, teachers reflected on their intentions to scaffold in CLIL lessons and how they would adapt their practice as language teachers in a CLIL context. They did not go

into depth with this. It was in the Action-phase where the teachers registered most reflection on methodology. The majority reflection type was Type 1. In all cases there was evidence of Type 0, 1 and 2. In one case there was evidence of Type 3. Type 1 was highest type noted in two cases and Type 2 in the other. In the early Action-phase the tendency was towards Type 2. Over lesson sequences it was Type 1 and in the late Action-phase it was Type 2. This oscillation between Types 2 and 1 may be accounted for in the teachers' wrestling with their early lessons bringing about more in-depth level of inquiry and interpretation regarding lesson choices, and their performance including how to capitalise on strengths and improve on weaknesses. During the lesson sequences, the clear tendency to Type 1 may be indicative of a focus on getting the teaching right in terms of the technical features of lesson planning and delivery, achieving objectives and moving on to the next lesson especially if things went well. There was a tendency not to dwell on things if they did. All of this was very important to teachers and could be said to be an essential aspect of teaching (see Noffke and Brennan, 1988). It raises the issue of whether other levels of reflection should be expected or indeed if they are absolutely necessary in all situations especially when tending to immediate needs is paramount.

By the Post-phase there were fewer reflections and the majority in all three cases were Type 2 which in two cases was the only type. This is exemplified by the tendency to reveal what is important for CLIL lessons in a principled, informed way which could well be given to other student-teachers as good advice. It is an example of mindful, committed action with regard to planning.

<table>
<tr><th>TEACHER</th><th>PRE-PHASE</th><th>ACTION-PHASE</th><th>POST-PHASE</th><th>KEY</th></tr>
<tr><td>C</td><td>1x1</td><td>7x0
10x1
6x2</td><td>2x2</td><td rowspan="3">Type 0: Descriptive/behavioural;
Type 1: Descriptive/analytical;
Type 2: Dialogic/interpretative;
Type 3: Critical/transformatory.</td></tr>
<tr><td>R</td><td>1x2</td><td>6x0
26x1
9x2</td><td>1x1
2x2</td></tr>
<tr><td>CD</td><td>1x1</td><td>1x0
5x1
9x2
1x3</td><td>4x2</td></tr>
</table>

Table 10. Reflection types per phase: methodology

1.4. CLIL vs. ELT

This category consists of teachers' reflections on the differences and similarities between CLIL and ELT, and the possible influence of one on the other (see Table 11 for a list of sub-categories and Appendix 32 for a full list of themes that each category contains). Differences were detected across all phases of the study and similarities in the Pre- and Action- phases. Other sub-categories emerged during the Action-phase only.

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
• Differences • ELT • CLIL • Similarities	• Differences • ELT • CLIL • Similarities • Influence of CLIL on language lessons • Influence of EFL on CLIL • CLIL or EFL?	• Differences • ELT • CLIL • Influence on language lessons

Table 11. Sub-categories for deductive category: CLIL vs. ELT

The reflections in the Pre-phase provide an indication of the teachers' concept of CLIL before their practice as distinct from ELT. Teachers were asked about similarities and differences between CLIL and ELT and the extent that their CLIL lessons would be similar or different to their language lessons in the first two questionnaires. It was clear that they saw more differences.

Differences

The differences common across cases were related to the focus of lessons where there was a clear distinction between a focus on content and cognition in CLIL lessons and a focus on language in language lessons. This was revealed in teachers' expressions of intent with regard to their CLIL projects in the Pre-phase.

> I think my CLIL lessons are going to be very different from my language lessons. I will try to focus my attention on the subject, try to lead students to understand the subject through English. (Teacher Rq).

The following comments are a direct point-for-point comparison between ELT and CLIL lessons in terms of lesson orientation, language choice, inclusion of thinking

skills, use, form and role of language. There is no attempt to elaborate with an explanation of why they are different.

> CLIL lessons are content-based while the EFL are more language-based.
> In CLIL lessons is the content that defines the language.
> CLIL lessons focus more on the thinking skills.
> In EFL we learn how to use the language. In CLIL lessons we use language to learn.
> In EFL the language is more structured (grammar). In CLIL lesson the language is to communicate. (Teacher CDq).

Another teacher mentioned the role and type of thinking involved in CLIL.

> The students are really learning a content, that is, a subject (other than a language) that they don't know about. Students will have to talk and explain things logically and will have to use more thinking skills (compare, relate, explain, etc). (Teacher Cq).

The focus and aim of language lessons was highlighted by another teacher as well as how the coursebook determined this. In language lessons, language is taught for language sake.

> To begin with I'm going to work with a course book with the language classes and therefore I'm going to follow the content/themes that we can find in the book. In these classes the language is going to be taught for the language in order to enrich their vocabulary related to one Unit/theme. (Teacher Rq).

The same teacher emphasised the natural acquisition of language in CLIL lessons where focus is not necessarily on the language, but conditions which support its uptake as opposed to the ELT context where there is overt focus on language which, according to this teacher, renders it more artificial. Her detailed account consists of a range of points which provide a more in-depth rationale for her comparison with hints of underlying principles. This provides evidence of Type 2 reflection.

> By learning the language through the content and the content through the language learners study the language as a natural way of learning the context. In CLIL lessons both content and language are to be explored once in EFL you explore the language more. Once the content is to be focused we need to give students more language support than in a usual EFL lesson. Moreover in EFL you expose learners to some topic and give them vocabulary in a different language that is not their mother tongue so EFL is seen as enforced learning while CLIL is based on language acquisition. With CLIL students are supposed to learn with real-life situations, in learning by doing which is a natural language development. (Teacher Rw).

Another difference highlighted by one teacher was the dual role of the teacher in the CLIL context in contrast to the single role of language teacher with the sole purpose of teaching language in the language class.

> The main difference is that in CLIL lessons the language teacher is also the subject teacher once you teach a content from the students' curriculum in a foreign language and you also teach the language. (Teacher Rw).

It is interesting that this teacher has placed responsibility of teaching CLIL with language teachers. There is no mention of a content teacher teaching subject content through the foreign language.

This issue was revisited in the Action-phase where teachers mentioned their roles within CLIL and EFL lessons. More differences were attributed because of the content of lessons. In CLIL lessons they were both the teacher of content and of language whereas in language lessons only the teacher of language. This implied less responsibility.

> In my CLIL class I tried to teach the content and the language integrated, the content through the language and the language through and for the content in real contexts. The big difference between CLIL and language lessons is that in CLIL lessons I'm the content and the language teacher while in language lessons I'm only the language teacher once I don't teach the content in a different language but instead I reinforce knowledge and introduce vocabulary and structures in English. Learners have the knowledge in Portuguese, with their generalist teacher and I use their knowledge and see if they are able to transfer it into a different language. (Teacher Rq).

However, one teacher commented that responsibility should be the same regardless of the type of lesson given.

> I think that the CLIL teacher should be the same as the language teacher. The role should be the same. It's not, I think, most of the time. I'm thinking of myself – but it should be trying to explain things … not everything … giving them some information and letting them find out other information. (Teacher Ci).

In this phase further differences related to actual CLIL and language teaching experience were highlighted. Differences were grouped into four main categories which were evident across all cases. These were: language use/role/type; lesson focus –

language/content/language and content; methodology – procedure, teaching strategies, and activities; and teacher role. Other categories which were evident across two cases were the degree of challenge and lesson value.

Not surprisingly there was a lot of mention of language in teachers' reflections. All teachers said that they focused more on language in language lessons. The objective of language lessons was to learn language. They were concerned with accuracy and fluency in students' output. This included pronunciation. The teachers mentioned that in language lessons they spent more time drilling, and on activities which were focused on practising specific language such as basic dialogues or matching exercises which did not demand high levels of thinking. Their reflections were descriptive of what their language lessons included and were qualified by simple explanations of their actions.

> In my language lessons I teach Ss vocabulary and small sentences that Ss will use in a communicative way. I always teach them with a purpose, for example doing a presentation, a wall chart or an oral/written description of a monster. I focus more on the oral communication and I spend more time on that. I usually use a lot of songs, games, stories and Ss have fun. During the lessons I teach Ss the structures they need to know to do something in the end of the unit. (Teacher CDq).
>
> [I]n language lessons I concentrate more on language structures and vocabulary, rather than content. I spend more time doing oral drills so that students have the chance to memorize more vocabulary. (Teacher CDq).
>
> In my language lessons I try to teach the language vocabulary and structures for the language following a topic, the vocabulary and the structures of the course book students have. I try to use some cross-curricular activities but I'm not teaching a specific content through the foreign language. Instead I'm only teaching them the language using a specific theme or topic. (Teacher Rq).

In CLIL lessons teachers said that they focused on content which was considered richer and more meaningful than that of EFL lessons. Interestingly, only one teacher mentioned both content and language. Content determines language in CLIL. This language is recognised as academic language and learners need to develop skills to use it and demonstrate cognitive academic language proficiency (CALP). There is less concern with grammar in CLIL, but more on getting the message across. Teachers were aware that this can mean using complex structures which have not been presented in a hierarchical sequence as in language lessons.

> CLIL lessons are richer in content and more challenging. I don't worry about grammar in CLIL lessons. (Teacher Cq).

> The main difference is that in my CLIL class I teach content through the language and students learn the language not only for the language but also in a real context. In my language lessons I only teach specific vocabulary and/or structures of a topic either using the course book or creating my own materials and activities. (Teacher Rq).

> With CLIL lessons I can't do the same because I don't have time (in my particular case) and I have to focus more on *Estudo do Meio* content. Here the language to communicate is important, but more scientific and more difficult for the Ss to use, because of their lack of language. (Teacher CDq).

Teacher CD's comments indicate a degree of tension brought about by her specific contextual restrictions. She considers the complexity of CLIL in terms of her students' difficulty with the language of learning.

One teacher mentioned the potential scope of CLIL in terms of content coverage. It is interesting that there was no mention of this with regard to language lessons. Does this mean that the content of language lessons with younger learners has less scope because of the language teacher's awareness of grammatical hierarchies which may create barriers to content learning?

> Now, with CLIL, I think that everything can be taught especially for teaching content that is not grammar. One thing has to do with the other so they have to think and establish relationships, to compare his thinking. (Teacher Ci).

The reflections of teachers revealed an awareness that the focus of lessons also determines the methodology used. CLIL lessons required a different lesson procedure and types of task which involved more higher order thinking and practical groupwork. CLIL was considered more purposeful, serious and challenging for students compared with the less serious, more fun ELT.

> It's like a game [ELT]. We're doing something in 45 minutes of English … . By doing CLIL for example, CLIL lessons are teaching them something more useful in the context not just reading a story because you have 45 minutes and you have to do something in English. I think that's more meaningful. Language becomes more important even for parents because parents don't see us really as a teacher, you know. They see you as someone who's going to do something in English with their children. (Teacher Ri).

> When I'm thinking about teaching a language lesson I can choose … whatever, and teach the same way I want to, I mean CLIL is challenging because you have some … goal to reach. You have something, content to teach and you have to reach to the students in a different way instead of just teaching the language. Teaching colours through a game ... Ok they learn colours and? (Teacher Ri).

This hints at the teacher's sense of the inadequacy of ELT for young learners and the realisation that they are capable of more, and that teaching more is also possible. The same teacher mentioned elsewhere the limitations of some of her language lessons where she compensated by including more cross-curricular activities. These reflections reveal that she understands the potential of CLIL, particularly the added value for students. In addition, she sees it as raising the profile of language which has an effect on parents' attitude towards her as a language teacher.

Teachers commented on how similar or different their language lessons would be if they taught the same content theme. It is notable that such lessons would be less practical and less challenging owing to a focus on the language and respect of a hierarchy of grammar structures.

> If I had been teaching this in a language lesson I wouldn't plant with them in the classroom, I mean I wouldn't plant at all. I could ask them to do it at home with their parents and in the classroom I would enforce more on the vocabulary and structures and perhaps tell a story on the content. (Teacher Rw).
>
> It would be quite different. I would have never done the experiment and the predictions. Then to introduce the topic I would do an oral drill of the vocabulary with pictures and gestures. Then, match word with picture. Only then I would have shown the video and they would order the pictures. In the end they would have drawn masks with different faces. (Teacher Cw).
>
> Certainly it would have been different. I wouldn't focus on paternal/maternal grandparents, nor establish relationships between family members. It would have been mainly vocabulary, and completing a simple family tree. And I wouldn't have taught anything about wedding, being born nor birthday because it implied talking about past events. But I enjoyed doing it, and I think it really works, because they do understand what we say, no matter what tense we use to talk. That is the interesting part. (Teacher Cw).

However, there was acknowledgment that use of more complex grammatical forms is possible before simpler ones have been introduced. In her accounts below, Teacher C credits this new knowledge to her CLIL experiences.

> If I had taught this theme in a language lesson I wouldn't have used a world map, nor so many countries, as they are only in the 3rd year.
> I would only have taught 3 to 4 nationalities. Having talked about more than 8 countries and nationalities I think this part of the lesson was demanding and challenging for these children.
> I would have practised more their pronunciation of words, doing repetition of country and nationality names: oral drill. I would also have focused more on the song and the learners would have sung the song more than 2 times, so that they could get familiar with words, expressions and the main questions of the song (*What's your nationality?* and *"Where are you from?"*).
> In a language lesson I wouldn't do a ID card and I would have never used the structure *"I was born in…"*, because it meant talking about the Past tense. This structure is quite demanding and it is only taught in the 6th year. However, having done this CLIL lesson, I think they really got it easily. I found that surprising for me, and I was pleased! They understood the concept of *being born* in a country.
> Finally, in a language lesson I would have never started by talking about *Freguesias, distritos* and *Concelhos*.
> The rest could be quite the same. (Teacher Cw).

> Usually I only teach some verbs related to animals (what animals can or can not do). If I was teaching a language lesson, probably I would focus only on the verbs of movement, making them repeat the actions by moving around the classroom. Then they would fill in a table (like worksheet number 2, but smaller). I would never ask WHY questions and make them think. And I would never talk about habitats or places in relation to movement (what is a mistake, because everything is connected). Probably, in the future, I'll teach differently, since I saw what my students were capable of. (Teacher Cw).

There is an indication of an underlying methodological stance regarding ELT in this teacher's reflections. It also reveals that she had never questioned this before and that CLIL had led her to consider possible changes. It is a pity she does not provide more ideas on *how* she will teach differently in the future. This would have been a more precise manifestation of change and would have taken her reflection to a higher level (Type 3). That said, teachers did elaborate on this issue elsewhere when reflecting on the effects of CLIL on their language teaching.

During a seminar at FLUP one of the teachers remarked that "CLIL gives us the chance to break the rules of ELT" with regard to the use of more complex grammar as well as

language provision through cues and substitution tables throughout the lesson, in contrast to only during a controlled practice stage of a language lesson, if at all, with young learners. In the Post-phase, differences were reiterated in teachers' final written reflections.

Similarities

The teachers mentioned what they thought were similarities between CLIL and ELT. In the Pre-phase this amounted to the provision of vocabulary for use in tasks and support given.

> (…) the way I treat vocabulary, making sure that they have enough vocabulary to accomplish the tasks and helping them with a variety of exercises. And some activities and games. (Teacher Cq).

During the Action-phase, two teachers drew on more similarities though in both cases different issues were raised. These related to lesson coherence, the appeal of materials and the use of some of these for both CLIL and language lessons, some activities, scaffolding strategies, the need for vocabulary, language for communication, and for linguistic and cognitive demands to be balanced. It was also mentioned that both types of lesson teach about content.

> On my CLIL lessons as well as on my language lessons I have to teach content. In both lessons I have to provide the vocabulary and language they need to communicate. The scaffolding strategies should be graded and constant in both lessons and the linguistic and cognitive demands should be balance either. The materials and tasks should be also appealing and engaging, according to pupils' levels and age. From my point of view the only difference is that on my language lessons the focus is primarily on the language to get to the content. In CLIL lesson it is the content that defines the kind of language pupils need to learn to be able to perform the tasks. (Teacher CDw).

Here the teacher gives an indication that she has weighed up both types of teaching and come to her own conclusions which hint at underlying principles but fall short of a fuller explanation. It is interesting that this teacher used the meta-language and principles used to talk about CLIL lessons and applied them to language lessons.

CLIL or EFL?

Across all three cases, there was an indication of what teachers thought was appropriate subject content for CLIL lessons. They had discovered this in practice from one of their

CLIL lessons which had been more orientation towards ELT than CLIL. There was evidence of this early on in two cases and mid-practice in another. The teachers blamed this on the nature of the lesson content which they thought was more language-oriented than content-focused. Lessons of this type were about family relationships, nationalities, and the physical characteristics of animals (in particular their skin coverings). Lessons had given a great deal of attention to language, labels and terms, and had involved little complex thinking activity, thus teachers believed they resembled language lessons as opposed to CLIL lessons.

> My CLIL experience has been different than what I had expected because the topic that was given to me by the generalist teacher was not a really CLIL lesson but more a language lesson. This is one of the problems of Estudo do Meio, because most of the contents are based on vocabulary and definitions of words. (Teacher CDq).

Influence of CLIL on ELT

The sub-category of the influence of CLIL on language lessons was evident across two cases in the Action-phase. Teachers mentioned their selection of more content related to the school curriculum, and that when a CLIL-like methodological approach to language lessons was adopted, more student enjoyment, motivation and interest was generated. There was also mention of more focus on thinking skills development in language lessons. In one case, the teacher mentioned that she was now more aware of scaffolding strategies in her language lessons.

> Now when I'm planning my language lessons I always try to integrate content related to Ss curriculum not just teaching Ss vocabulary or small sentences. I think a lot about my scaffolding strategies and the thinking skills. (Teacher CDq).

> I never did a cross-curricular approach, never. I think it changed the way I teach. For example, the way I did the unit on food. I decided to use the food pyramid. Usually I teach vegetables, fruit, food items, but not integrated in the food pyramid, and this year I decided to do that and I think they loved it and it was very interesting for me and for them. (Teacher CDi).

For Teacher C who did not hold a teaching position in a primary school, CLIL had influenced the way she taught older, more advanced level students in terms of the content of her lessons and her approach to teaching grammar. Her CLIL experience had led her to more discovery-oriented grammar teaching.

> It's making a difference especially on the part of thinking. I only did that as far as the grammar was concerned. I wanted them to discover grammar that was my belief, but only that. For me, grammar was the difficult part and I thought teaching them grammar is making them think more, finding the rule for themselves and thinking why and then applying it. (Teacher Ci).

In the Post-phase there was further mention of the positive influence of CLIL on the language lessons of all three teachers. All mentioned better contextualisation of language, more focus on thinking skills, and more focus on getting the message across regardless of the language used. In two of the cases, the teachers mentioned that they were more focused on content.

> Now when I'm planning my lessons I always try to integrate content related to pupils' curriculum, especially contents from *Estudo do Meio* and Maths. This kind of learning is more contextualized and provides an excellent context for language learning. (Teacher CDw).

In the example below, the teacher talks about some of the ways in which the CLIL experience has contributed to and changed her practice for the better. It is clear that she regarded the experience as having been valuable to her and her students. There is a clear indication of the potential worth of CLIL.

> I must confess that these CLIL lessons made me think much more about my language lessons. I still teach language more or less the way I used to, but, I give now much more attention to the content, that is, if I'm teaching the topic FOOD, I try to convey some other ideas rather than just vocabulary. Last week for example, I was going to read a text about food with my students, and one of the things I did with them was a little survey and some graphs on the board. After a while students realized we were talking about statistics in English and one of them even told me "We are also doing this in Maths!" (Teacher Cw).

> Now I am aware that students feel more motivated learning a language when there is content involved. Teaching young learners only what they already know, sometimes makes them lose interest in the language and feel bored.
> Now, when I teach the 2nd and 3rd cycle, I try to include content in it, being it of grammar or real content. I confess that I try to include real content: speak about topics of real life and things that they have never heard, so that it is new for them, and this makes them feel curious about what they are learning.
> I feel that I'm more focused on passing the message through, rather than explaining the message. I don't worry if I'm using the *Past Simple* or the *Future*, I worry more that they understand what I say. (Teacher Cw).

The positive effect of CLIL on the teaching of non-CLIL lessons was noted in the study of Infante *et al*. (2009) where CLIL influenced planning, organisation of lessons and methodology. Planning became "less fragmentary and more organic" (*Ibid*.: 162).

Teacher R mentioned that CLIL had had little effect on her language lessons as she was used to a cross-curricular approach and collaborating with one of the generalist teachers using similar content in her language lessons with this class. However, with other classes she was still using a coursebook which she supplemented with cross-curricular materials when she thought this was appropriate.

> It was very different teaching CLIL and teaching EFL lessons. To begin with I used a course book in the language lessons and therefore I followed the themes and the structures I could find there. I taught the language for the language in order to enrich the learners' vocabulary related to one unit or one topic. In the language lessons I explored the language more and exposed learners to the course book topics using songs, games TPR activities, stories and I always tried to do some cross-curricular link activities in order to keep students interested, motivated and engaged. The course book has some topics from the students' curriculum but other topics are related to the students' interests and experience. The activities are adapted to Young Learners and I just adapted or created my own materials and resources when I felt that there was something missing there, such as, stories. (Teacher Rw).

It is clear that the teachers saw CLIL and ELT as different approaches to teaching. These differences related mainly to the focus and purpose of lessons. It appears that teachers viewed CLIL as the more serious and meaningful of the two. This was because of the type of content covered and the level of cognition that CLIL lessons demanded. Similar observations were noted in the study of Massler (2012: 39). These were also features that they transferred to their language lessons. CLIL was viewed as having more to offer ELT than the reverse. Perhaps teachers' attention could have been drawn to how ELT can support CLIL. This was not addressed in any of the data-gathering tools and could be considered a limitation of the study. There is a lot that CLIL can benefit from in the area of ELT, but this also depends on whether this is part of teachers' regular language teaching or not. If teachers are not used to incorporating communicative activities, task-based learning and groupwork in their language lessons then they are unlikely to see their connection with and relevance to CLIL lessons.

Teachers did demonstrate many typical traditional ELT strategies such as drilling and the use of substitution tables to support language in their CLIL lessons.

Although the teachers planned and taught language lessons during their practicum, only two lessons from each teacher were observed by the author. This is not enough for an observer to make the same claims as the teachers themselves with regard to the influence of CLIL on their language lessons. The language lessons plans were shorter, simpler and less detailed though this varied from teacher to teacher. It seemed that planning and teaching language lessons was more tacit and intuitive to the teachers. Less was accounted for in plans. These experienced teachers may have felt that they did not need to go into depth with this. Lesson aims were language or skills focused as were tasks in unit plans. Content themes of lessons were famous people, pets and wild animals, parts of a house, clothes, and food which are typical ELT themes for young learners. In each case the theme was used to introduce and practice language - vocabulary and simple structures, and language skills, mainly listening and speaking. For example, for one of the lessons about parts of a house, the language focused on was a lexical set of rooms in a house and prepositions of place. In practice, lessons were teacher-centred. There was little to no evidence of groupwork involving task-based learning.

There was little evidence of any influence from CLIL in the plans. In the lesson rational of one there was mention of cross-curricular links with the primary curriculum though in practice this was only realised through a class survey about famous people. In another plan a procedural aim was articulated to develop thinking skills though it only related to checking the students' memory of the differences between domestic and wild animals. In one plan aims mentioned for developmental skills were to categorise, predict, record data, and apply understanding, which may have been influenced by thinking-skills terminology for CLIL lessons.

In practice teachers used substitution tables to support language use in language lessons though this was not mentioned in their plans. Further glimpses of the possible influence of CLIL methodology were observed in a lesson given by Teacher CD about healthy and unhealthy food. She presented language frames and substitution tables on the blackboard though these were not mentioned in her lesson plan. This is something she

was not used to doing in her language lessons. She also insisted on spoken language around key food items. She asked two students to justify their answers about healthy eating habits, though this was impromptu and they did not have the language for this. The students answered in L1 and pointed to a poster about the food pyramid which was in the classroom. The teacher had not planned for these questions nor had she anticipated answers in either case. There was, however, evidence of a group task which had been planned. As an observer, the author found the CLIL lessons of teachers more interesting, creative and challenging.

Types of reflection on CLIL vs. ELT

All three teachers pondered the differences between CLIL and ELT in the Pre-phase and registered Type 1 reflection overall (see Table 12). Two cases also registered one instance of Type 2 reflection and one of these cases also registered two instances of Type 0. The tendency towards low level reflection was illustrated by the straightforward simple comparisons between the two types of teaching. This may well have been influenced by the data-gathering tools which directed teachers to focus on similarities and differences which they may have interpreted as requiring little more than this.

In the Action-phase there was evidence of Types 1 and 2 reflection across all cases and Type 3 in two. Type 2 was in a majority in two cases where there were high numbers. In the other case, the majority type was Type 1. There was no evidence of Type 0 in any case. The high number of instances of Type 2 reflection during this phase is probably due to the teachers' realisation of similarities and differences during their practice, as well as attention being drawn to a consideration of how they would teach lessons had they been language lessons with the same thematic content. This stimulated a lot of hypothesising from teachers.

In the Post-phase there were fewer direct reflections and no overall majority type across cases. There was evidence of Type 2 and 3 in one case, Type 1 and 2 in one, and Type 1 only in another. Higher level reflections tended to be about the effect of CLIL on their language teaching which led to a consideration of how this had transformed their practice.

TEACHER	PRE-PHASE	ACTION-PHASE	POST-PHASE	KEY
C	**3x1** 1x2	8x1 **10x2** 1x3	**4x2** 1x3	Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory.
R	2x0 **3x1** 1x2	**9x1** 3x2 2x3	**1x1** **1x2**	
CD	**3x1**	6x1 **13x2**	**1x1**	

Table 12. Reflection types per phase: CLIL vs. ELT

1.5. ELT for Young Learners

All three teachers were experienced primary English language teachers each having over 10 years experience. They all enjoyed teaching young learners. This category consists of their reflections on English language teaching for young learners which could indicate their beliefs about how young learners should be taught foreign languages. English has been an optional enrichment activity in primary schools in Portugal since 2005. The teachers had been actively engaged in it before that time and had been involved in coursebook writing for this purpose.

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
	• Endorsing CLIL • Supporting the early start of foreign language learning • Approach/methodology	• Endorsing CLIL • Approach/methodology

Table 13. Sub-categories for deductive category: ELT for young learners

In the Pre-phase there was no evidence of reflection on ELT for young learners (see Table 13 for a list of sub-categories and Appendix 33 for a full list of themes that each category contains). This was probably because it was not addressed separately in the data-gathering tools. In the questionnaires conducted in the Pre-phase teachers were asked about the extent their CLIL lessons would differ from teaching English to young learners and whether they would adjust their practice. There was opportunity for them to comment on ELT for young learners here if they had wanted to. It was during the interviews conducted in the Action-phase that this theme was specifically addressed. Each teacher was asked about their personal beliefs about teaching English in primary schools, and about what and how it should be taught, and whether CLIL was changing

what they thought about this. In the 6th questionnaire administered in the Post-phase this theme was also addressed. Teachers were asked if the CLIL experience had changed the way they viewed the teaching of English in primary schools.

Endorsing CLIL

In the Action-phase, an endorsement of CLIL was detected in teachers' comments on the need for change in English language teaching for young learners. Teachers mentioned how a model of CLIL could be operationalised, suggesting curricular content areas, amount of CLIL and the degree of collaboration with the generalist teacher.

> As far as my experience of CLIL and the primary… what I think and I've been saying this to my friends, is that the English Orientações Programas should change. I think it would be good for English in primary to see what Estudo do Meio has and I think 70% of the programme could be taught in English. If we look at the first year and the second year programme, we see that they are going to learn colours, my family and I, my house, so things could be taught in English because they know that, it's their environment. So they already know. Of course, they're going to learn new things, small new things that they could do in English so they could do two things at the same time and the generalist teacher could have more time to teach Maths, for example. So you could create a new programme and English would be compulsory from the first year. The music teacher would teach only music …
> They would be fully integrated, I don't say 100% because if we're talking about bridges, names of rivers, this should … history should be taught in Portuguese because it's Portuguese history. But if we're talking about plants, if we're talking about family, family relationships, why not talk about that in English? And if the generalist teacher wants to talk about that in a text and the word 'padrasto' appears, but talk in English about 'padrasto'. (Teacher Ci).

This teacher had clearly thought about a possible model for implementation. It is interesting that she sees CLIL as part of a strategy that would free up curricular time for the generalist teacher to focus on priority areas like Maths. Her comments reveal considerations of contextual factors. She has distinguished between topics that should be taught in the mother-tongue and prerogatives of the national curriculum like History and some aspects of Geography. She articulates a deepening understanding of CLIL and suggests how it could work in her national context. This had likely been influenced by her personal practice and that of the other two teachers. However, her suggestions go beyond this. She is aware of the potential for change through CLIL. Her account is indicative of Type 3 reflection.

One teacher suggested the need for legislation so that English would be a compulsory part of the primary curriculum. There was an indication of a negative stance towards English language lessons which only focused on vocabulary and games, and that integrated teaching was the best way. However, according to the teacher this is dependent upon "teamwork".

> Well, I'm really strict. I have a strict opinion because I think it's really important … and from the school environment I have been working in, I think it's a priority to have English in the young learners' curriculum but it would only be possible if we could have teamwork, work with another teacher. Doing English like we are doing now, only to teach them some vocabulary, to play some games with them and that's it. (Teacher Ri).

This was further highlighted by the account of another teacher's failed attempts to get support to do this. The necessity of this support was emphasised in her mention of her difficulty with "real content", real in the sense of authentic academic content.

> Three years ago, I tried to do that with one generalist teacher and I asked her to say to me what she would teach and then I would try to do more or less the same in a different way, but I never got the feedback, so I quit doing that. What I did in my planning was, I saw in Estudo do Meio what was going to be taught, and I did that … I tried – without any cooperation I thought it was useless although I believe that teaching English is also teaching something new. For example in our books we have some examples of food chains and I enjoyed teaching that. Even if they hadn't learned that they would enjoy learning about something new. But it was hard for me to do that because I wasn't used to teaching real content. (Teacher Ci).

The experience of this teacher revealed her motivation to experiment with a new approach and the dependency on the support of others to carry this through. One teacher's vision of English in primary schools hinted at the potential for research by having control groups for language in order to make comparisons with CLIL groups. This is indicative of an inquiry-oriented approach, of the need to provide evidence of success in order to justify continuation of the new approach. The teacher's actual CLIL project context was similar to the one she described. The only thing it lacked was the research angle. Hence, she probably felt the need for this in order to further endorse the model of practice there.

> I think it would be wonderful if English in the primary was part of the student's curriculum. The language teacher could also be a content teacher and plan together the year with the generalist teacher dividing topics, using the same

> strategies, creating materials together. The English teacher could have more than one class and would be able to compare the same experience in different classes working with different students and different generalist teachers. (Teacher Rq).

In the Post-phase the category of endorsement for CLIL was revisited. Here CLIL is seen as another means of teaching language and subject content. The teacher has understood the characteristics of this methodological approach. She was able to appreciate it from a personal perspective and could see its worth.

> I learnt a lot not only as a person, but also as a teacher and now I can see that there are other ways of teaching my students the language not only for the language itself, but also a way of exploring topics, that are to be explored in the primary, in a natural way. I'm glad with what I achieved so far and whenever possible I want to continue this kind of work further more. (Teacher Rw).

Supporting the early start of foreign language learning

There is evidence in the Action-phase of support for the early start for foreign language learning. One teacher discussed the advantages that young learners have in terms of the speed with which they are able to acquire languages and good pronunciation. For this teacher, the more languages, the better for younger learners. Her opinions reflect commonly held beliefs about young learners which have been critically debated (see Marinova-Todd *et al.,* 2000).

> First, I think that English should be taught since kindergarten not primary because I think, I've taught three years, but I think they learn really, really fast and that's the best time to give them the right pronunciation, because they can pronounce everything they hear and if they get used to it once they are eleven years old it's already there. So in the primary it's like a continuum already. For me English in primary is very important because children are already learning a language and it's the best time for them to learn another language or two languages … They learn very fast a language and mainly orally and speaking. We should concentrate orally and speaking and when they are eight or nine they are able to read and write already some things, and teachers tend to separate them. (Teacher Ci).

However, Teacher C's comments draw on her practical theories developed from teaching very young learners from which she is able to present a strategy for implementation of foreign languages in primary schools.

Approach/methodology

One teacher provided an indication of the type of methodological approach which she thought best suited to early foreign language learning, one which should focus on oral communication and not just de-contextualised, isolated words. This is part of her long-held belief. This is an indication of her prior understanding and commitment to teaching for communication.

> Well, I think we should teach the language for communication, you know. I always believe in that. We shouldn't teach words just for words. We should teach words in a context. For the primaries, for example, in the presentation, I used to … they learned 'what's your name? 'My name is…' but then I got them doing dialogues together. They came to the front. They do it to be more real. And I think we should teach the language for communication because that's what it is. (Teacher CDi).

In the Post-phase, this teacher provided an indication of a change in views on this. Although she maintained her stance about teaching language for communication, she expressed more openness to change towards a more cross-curricular approach. This had been brought about by her CLIL experience and the potential for more proximity to the content of the primary curriculum in her language lessons. It is not a complete endorsement for CLIL because she indicates reinforcing knowledge in the language lesson rather than teaching new content. However, it is one means she saw was possible in this context.

> CLIL influenced a lot my language lessons. For start it was something completely new for me. As I said before I have never heard about CLIL until I started my *Mestrado*. As a language teacher I never did this kind of approach. I always teach English according to the *"Orientações Programáticas"* but having into account the pupils' level, age and interests. I always try to teach English focusing on the communicative aspect. I try to focus on topics creating real situations where pupils have to use the language in a more natural and meaningful way and not focusing only in the structures. Meaningful language is always more easily retained by learners. Through guided exercises I always encourage pupils to speak. I always use activities, such as role plays, games, stories and pair or group work, where pupils are more engaged, motivated and active as learners. However, during these years I never developed a CLIL or even a cross-curricular approach in my English classes. (Teacher CDw).
>
> Only when I started the CLIL lessons I had the need to familiarize myself with the national primary curriculum from Ministry of Education. Then I realized that there were so many topics and subjects that could be included in my English lessons. Now when I'm planning my lessons I always try to integrate content

> related to pupils' curriculum, especially contents from *Estudo do Meio* and Maths. This kind of learning is more contextualized and provides an excellent context for language learning. Pupils naturally bring their previously acquired knowledge and experience and apply it to the activities. They become in fact more involved. Everything fits together. With this kind of approach, English teachers and generalist teachers can articulate and work together, but even if this articulation does not happen, I can still be able to do that in my English lessons. The contents will be reinforced and better learned.
> This year I decided to do that in my lessons. Just to give some examples, I taught the solar system and the evolution of the means of transport with my 4th year class, the food pyramid with my 3rd year class, the mixing colours with my 1st and 2nd year classes and cultural aspects which helped pupils to learn more about their own country by comparing with the country which language they are learning. All of these aspects will help pupils' cognitive, affective and social progress and development. (Teacher CDw).

It is clear that this teacher has learned a great deal from her CLIL experience. It has brought her in touch with the primary curriculum and she has learned about a new approach to teaching. Her account reveals that she was able to articulate her new understanding of CLIL and its contribution to her own practice as well as its benefits in broad educational terms. It is also an illustration of the tendency in longer written accounts to include multiple content foci and a range of types of reflection. In the first paragraph the teacher describes the way she teaches English language providing examples of the features of her teaching as well as multiple justifications for her actions. This combines Types 0, 1 and 2 reflection and provides the background texture to her description and analysis of her CLIL experience where she engages in more in-depth analysis. Here she mentions numerous other foci – learners, context, methodology, the influence of CLIL on ELT, discussing them in general terms before returning to experience which she uses to illustrate her learning about the potential of CLIL. In this part there is evidence of Type 3. In this account multiple content foci and types of reflection combine to surface complexity. Similar observations have been noted in other studies (see Hatton and Smith, 1995; McMahon, 1997; Ward and McCotter, 2004).

Throughout reflection on this deductive category, there was a clear endorsement of CLIL for young learners in primary schools as a means for children to learn both the foreign language and curricular content. The CLIL experience made teachers consider alternative means of teaching English to young learners using content from the primary curriculum and techniques from other disciplines in their language lessons. It influenced their views on language lessons which they began to see as having more potential for

other learning which would constitute better practice in teaching languages to young learners.

Types of reflection on ELT for Young Learners

There were few instances of reflection on ELT for young learners across the phases of the study (see Table 14).

TEACHER	PRE-PHASE	ACTION-PHASE	POST-PHASE	KEY
C	---	**3x2** 1x3	**3x2**	Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory.
R	---	**1x2** **1x3**	1x0 1x1 1x2 1x3	
CD	---	**2x2**	1x2 **2x3**	

Table 14. Reflection types per phase: ELT for young learners

No instances were detected in the Pre-phase. In the Action-phase, it was only detected during the interviews which were conducted. Type 2 was evident in all cases. There were also instances of Type 3 in two cases. No reflections specifically addressed this theme during the lesson sequences. The fact that there were instances of higher level of reflection should not be surprising since the teachers were asked for their opinions about this theme. They all had considerable experience in the area of English language teaching for young learners which they were able to draw on whilst also considering their newly acquired understanding of CLIL in practice and the possibilities for this given contextual restrictions. This allowed them to consider a larger number of factors as well as the implications for education in a broader sense.

In the Post-phase majority type of reflection was split between Types 2 and 3. The similarity of tendencies in the early action and Post-phases indicates that teachers were prepared to endorse the CLIL approach seeing potential in it from their theoretical understanding and limited practice, and that this was confirmed during their practice which they commented on at a distance in the Post-phase where they were able to draw on personal experience of its success and its influence on their language teaching.

1.6. Learners

This deductive category consists of sub-categories which emerged from teachers' reflections about their learners. The term 'learners' is used interchangeably with 'students', 'pupils' and 'children'. Sub-categories common across cases appeared in the Action and Post-action phases (see Table 15 for a list of sub-categories and Appendix 34 for a full list of themes that each category contains).

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
• Concerns about learners	• Learner attitudes to CLIL lessons • Needs • Use of L1 • Achievements • Difficulties • Benefits	• Learner attitudes to CLIL lessons • Achievements • Difficulties • Benefits

Table 15. Sub-categories for deductive category: learners

In the Pre-phase, one category related to learners was detected in the reflections of two teachers. This was teachers' concerns for their learners during the CLIL projects.

Concerns about learners

Teachers' concerns addressed key issues regarding the learning of complex academic content and learners' ability to express their understanding of it in the additional language.

> The output – are the students capable of talking about that topic in English? Is it enough to fill in only some words? (Teacher CDq).
>
> Will they understand the subject I teach? (Teacher Cq).
>
> Will they actually learn content effectively? (Teacher Cq).
>
> I also want to see how they will react to questions that will make them think and explain things that are not obvious. (Teacher Cq).

The last point above also gives an indication that the teacher had considered her methodology, particularly the use of questions to make students think and explain more abstract concepts. She had begun to consider the cognitive demands of CLIL on learners. There are three questions asked above which indicate an analytic stance to teachers' reflections. However, there is no attempt to provide answers, not even speculative ones.

Another concern related to assessment and the problematic issue of which language to use in testing. It is interesting that at this point the teacher was already very conscious of this. This was probably due to concern about this within the school community.

> My main concern is the evaluation, since children have to be evaluated in Portuguese what they will learn in English. (Teacher Cq).

In the Action-phase, three sub-categories were common across cases. These were: 'learner attitudes towards CLIL', 'achievements', and 'difficulties'.

Learner attitudes

All teachers mentioned that learners' attitude towards CLIL was positive. They noticed that learners were enthusiastic and excited about lessons, and were actively engaged and participative. The first of these accounts is a straightforward description of learners' behaviour. In the second, Teacher R provides an explanation for learners' motivation as well as her own realisation that the noise in her classroom was caused by the learners' engagement in the task and therefore something positive.

> Students are really interested and enthusiastic about the lessons' content. They are reacting and working well and always talking about our lessons or the topic even during the breaks. (Teacher Rw).
>
> The lesson was too noisy, especially the *group activity*, but learners were very enthusiastic and extremely motivated with the fact of really growing a plant in the classroom. They loved to do it and at first I was a little worried with the noise but then I realised that it was part of the activity and of the excitement of the task. Students were learning in action and in use and as they were very interested in doing this activity they became noisy and talkative although in a good way. (Teacher Rw).

The high level of enthusiasm and participation is a frequent observation in CLIL classrooms where teachers plan for more interaction between students to develop learning and communication in the foreign language (see Pavón and Ellison, 2013: 70; Hunt *et al.,* 2009: 114). Students' enthusiasm was also attributed to their active involvement in the lesson in 'learning by doing' during hands-on experiments using objects and tools which promote curiosity and excitement.

> Learners loved to learn by doing and we could combine what they knew or thought they knew about growing a plant with my help and with a concrete task. This kind of an activity is something they can repeat at home with their parents. (Teacher Rw).

> I thought it went quite well. They were very excited to do an experiment and were thrilled to have the opportunity to touch things and try for themselves. (Teacher Cs).

> I think that when we use *realia* the impact on pupils is totally different, because it is more meaningful. As children, they like to touch and feel things. I noticed that most pupils were using the language by saying "This is the stem" and some of them were using only words, as "root" or "flower". I was glad because at least they were able to name the parts of the plants. By the end of this lesson I was convinced that I had fulfilled the aims and the objectives for this lesson. (Teacher CDw).

A frequently cited mantra in CLIL is 'learn now, use now' which is what the teachers provided opportunities for in their lessons described above. The kind of kinaesthetic engagement where concrete objects are used in practical activities is particularly appropriate for younger learners as an aid to their understanding of content and language (see Rampone and Krigere, 2006). The potential for 'using' knowledge and language later beyond the classroom in the home environment was also noted above. This supports the claim of CLIL to providing 'added value'.

Students' motivation was a source of inspiration for the teachers. However, for one teacher this came only in the second sequence of lessons. She felt that learners were not impressed by the lessons and did not participate much. They did not think CLIL was "fun". This may well have been the result of the content chosen for the lesson which was about family relationships, which the teacher herself was not very enthusiastic about.

> At this point I think that in my CLIL lessons Ss are much more passive than active learners. The tasks are cognitively more demanding but Ss and I have less fun. (Teacher CDw).

However, during later lesson sequences, the same teacher noticed the opposite reaction from learners. She also attributed this to her effort to improve her CLIL lessons by using realia and technology.

> When the class was over I asked some pupils about the lesson and they told me they loved it. The generalist teacher was also very pleased with what I had done in her class. She even asked me permission to place the photos from the work

> pupils had done in the school blog. All in all I worked hard and I did an effort to improve my CLIL lessons by using a Powerpoint presentation and by getting real plants, but I think it was worthwhile. (Teacher CDw).

In one case it was noted that CLIL lessons had also brought about more negative behaviours among some learners who were critical of each other's opinions.

> The main aim of the lesson was to lead students or to help them to classify the animals according to what they eat and therefore let students discuss their opinion and ideas. I think that this was not too demanding for the students but four students were not available to think together with their colleagues and began laughing and criticising each others thinking and answers. (Teacher Rw).

This is an interesting point because it highlights the maturity that is required in such learning contexts. It may well have been the case that these children were unused to being asked for their opinions. It serves to illustrate that CLIL demands specific classroom management of younger students and guidance about how to cooperate. Looking at it from a different perspective, CLIL may be the springboard for developing these behaviours in younger learners.

In the Post-phase all teachers' returned to 'learner appreciation' of CLIL lessons, how enjoyable the experience was for learners and how much they were motivated by it. These were features of the experience which stood out for teachers.

> The children were very excited with this idea right from the beginning. After some lessons they acted naturally to the fact that I was coming to teach them *Estudo do Meio* in English. Now that the lessons have ended and when I go to the school, they all ask me when I will be back again. Children liked the experience. (Teacher Cw).
>
> It is true that at first students were a bit worried because they thought that it would be difficult for them to understand the content only through a foreign language. Nevertheless, it took a short period of time for them to realise that it wasn't that difficult. They were motivated and enthusiastic with the 'plants and animals' topic and they were able to understand the content with and through a different language. (Teacher Rw).

Here we learn through the teacher that the learners' had concerns at the beginning of the project. Another teacher mentioned that the CLIL experience was motivation for a student to join the optional English classes at school.

> The generalist teacher told me that one of her pupils who never had English told her she wants to have English as an enrichment activity next year. (Teacher CDw).

It is often said that CLIL can lead to renewed interest in foreign language learning (see Coyle *et al.,* 2010: 12).

Learner achievement

The sub-category of learner 'achievements' was detected in Action and Post-action phases. In the Action-phase, there were common themes across cases. These were the higher than expected extent of learning and participation, the learners' understanding of content and concepts, and success with challenging tasks and materials.

The admiration of teachers for learners is perhaps related to the fact that they had had concerns about them before the CLIL experience began as evidenced in their Pre-phase reflections. They did not have very high expectations of learner success and were curious as to how they would cope. This led to a high degree of admiration for learners during the CLIL experience. In the study by Hunt *et al*. (2009) the student-teachers of modern foreign languages who experimented with CLIL in a lower secondary context had a similar reaction. They were "encouraged by the level of thinking skills required and the learners' ability to operate with demanding content through a limited range of language" (*Ibid*.: 115). These themes were also present in the reflections of the three teachers. The teachers were clearly surprised and delighted at what their learners managed to achieve in the CLIL lessons. Teacher CD's account below reveals her initial mulling over a lesson before giving it. She examines and questions her decisions and then recounts her students' surprise success. Teacher C comments on her students' positive inclination towards CLIL, and Teacher R provides an account of students' successful completion of a series of tasks.

> I think the lesson went better than expected. I was afraid because I didn't know if they knew the vegetables. For us, sometimes it's obvious – this is a lettuce, but they have some difficulties, you know. This is a lettuce. This is a cabbage and I was afraid and I started thinking at home, probably it will be difficult. But then I went to the groups and I kept showing them, 'What's this?', and I think they were able to analyse it and they were using English and I thought it was nice. (Teacher CDs).

> I was amazed how well they understood the concepts taught in this lesson. Also, when I was reviewing the topics given in previous lessons, I found interesting that they knew the most difficult words like "underground", "worm" or "live". They are getting into the spirit, that learning in a foreign language is natural and doable. I enjoyed teaching these 3 lessons and it was very challenging even for me, because I wanted to make sure they understood the content. (Teacher Cw).

> Students were able to recognise the relationship among animals, and among animals and plants, and they were able to order and sequence food chains. They also identified and gave examples of different *producers, consumers* and *predators* and were able to explain simple food chains classifying and categorising the animals and the plants. (Teacher Rw).

One teacher was able to recall her thoughts about the students' learning process. This is interesting as it captures the moments where the teacher identified the stages of learners processing her input – through translation, then interpreting the concept in L1 and then communicating understanding through drawing. This is something that was captured soon after the lesson during the post-observation discussion between the author and Teacher C. It may not have been surfaced so readily if left to a later written reflection unless that was recalled during a viewing of the video of the lesson.

> I found it interesting that some learners were really trying to get the idea of what I was talking about like when I was talking about the food chains, some of them were speaking at the same time in Portuguese, like, Ok, the X or the grasshopper eats this, 'like I get it', and they were saying this in Portuguese like my brain is trying to understand what she is saying .... but for some it was difficult, but I think they got slowly the idea especially when they had to draw. They had to draw the animals first and then when they had to draw themselves and then ... the monkey eats the X? No. So why is the monkey here? So they had to think ... (Teacher Cs).

In two cases, learners' success in tests was mentioned.

> At this point I'm able to say that my CLIL lessons are working for the children, because according to the worksheets that pupils did in class and the tests they did with the generalist teacher the results were very positive. Almost all pupils were able to answer the questions correctly, even in English. In conclusion, they understood. (Teacher CDw).

This was a hugely desirable outcome as in the Pre-phase there had been concern over the testing of students in L1 of content which had been taught in the CLIL lessons through English. By the Action-phase decisions had been made in all three cases to allow for testing to be carried out which included some sections in English. These did not only focus on language, but also on content (more is said about this in the section on

‘teacher competences’). The teachers revisited this topic in the Post-phase which indicates that it was an important sign of success in projects.

Other sub-categories which emerged across two cases in the Action-phase were related to success in understanding and using language.

> I used English almost all the time and pupils used it more than usual, with the help of the written substitution tables. Teacher CDw).

One teacher acknowledged learners’ ability to understand content through the similarity of terminology in L1. Another teacher was surprised by students’ ability to work out the meaning of new language.

> The *Listening Activity* part of the lesson was more like a consolidation of these blocks of lessons and students seemed to be aware of the learnt vocabulary, structures and content and they were also able to decode and understand the meaning of “*small tail*”, “*eight arms*”, “*small ears*” that was not introduced or practiced before. (Teacher Rw).

This same teacher was also amazed at students’ ability to learn despite distractions in the classroom. It was as though she only believed this was possible with absolute silence to concentrate on complex concepts.

> They can learn, that I can’t understand! They can learn within the noise, within the excitement, put things in order in their head because we checked the other lesson and they know the vocabulary, they know the process and also Teacher G (generalist) told me she asked them, ‘Ok, remember, what did you do with Teacher R and they said the vocabulary in Portuguese because they know ‘bolbo’ and ‘estaca’ and so on. (Teacher Rsem).

Another teacher mentioned students’ ability to learn content and answer questions about it despite it being in another language.

> Having experienced CLIL we are more aware of the abilities of our students. We realize that they can answer questions in English about subjects (like animal habitats and family relationships, etc…) even though they are doing in a different language. (Teacher Cw).

The breadth of learning content and language, as well as the transference of knowledge and skills to the mother-tongue was something mentioned by another teacher.

> I can say that learners liked this experience, they learnt not only the content, but also the language and new structures, and they are able to transfer what they have learnt in a different language to their mother tongue. So, they learnt and understood the *Estudo do Meio* content with and through English and they can explain and talk about it in their mother tongue too. (Teacher Rw).

Learner difficulties

Just as learner achievements were identified by teachers, so too were their difficulties. It is not certain that the difficulties encountered by learners related to their inability to understand the content and the task, or the way in which they were presented to them by the teacher. In CLIL learners have to work harder as they are engaged in complex processing of language and content which is cognitively challenging. Teachers' reflections highlighted a possible lack of experience on the learners' part with these kinds of task and the thinking skills which they demanded. They may not have done things like this in their regular lessons with the generalist teachers. They may also not have had the language to express ideas, though the teachers do not indicate that this is the reason here. The teachers themselves were inexperienced with CLIL and were also learning through their teaching. In CLIL, both teachers and students have to adapt to new methodologies.

> Then I stuck on the board a big family tree and I asked pupils to come to the board and stick the family members. Here I noticed that some pupils had difficulty in doing this even though I decided to give them Harry's family tree for them to fill in with the family words. Only nine pupils managed to do it correctly, some of them with my help. But even the good pupils had difficulties. (Teacher CDw).

> This lesson didn't go so well… at least I was a little bit frustrated. Counting the heart beats was the best part, although I felt they had some difficulty in predicting information and then drawing conclusions. I had to guide them a lot. (Teacher Cw).

Two teachers mentioned that learners' difficulties related to a lack of L2. This is illustrated in Teacher R's account below.

> In this particular lesson the aim of enabling students to predict about plant reproduction was somehow difficult for them because they didn't have enough language for discussion or to answer some of my questions in English. They understood my explanations and questions but it was easier to answer in Portuguese. Nevertheless, I think they learnt that there are different ways of growing a plant and they also learnt some vocabulary related to the topic through visuals (flashcards and pictures) associated to the words. (Teacher Rw).

This is a case of the teacher not providing enough language frames to predict, discuss, explain and reason. She may well not have anticipated this prior to the lesson. That said, there may also not have been enough time for learners to assimilate language needed to frame their answers. Both are crucial and cannot be overlooked in CLIL lessons. However, there is an indication that the learners understood the concepts though they did not have the language to express more higher order thinking. The teacher was highly attuned to the learners' reactions at all stages. In her reflection she is able to articulate precise reasons for their success and difficulties.

In the example below the difficulty relates to pronunciation.

> Next I did the correction using the slide shows. I asked one pupil at a time to read the sentence he/she had matched. Obviously, here pupils had some pronunciation problems, as I expected, so I had to help them to read by saying the most difficult words, but the most important was that they were able to match the functions correctly. (Teacher CDw).

It seems that here the teacher is concerned with the understanding of concepts, but cannot avoid 'fixing' pronunciation issues. It also underlies another important issue which is that learners do need to understand the language of the task – what it looks like as well as how it sounds. If this is ignored, it will be like young children 'barking at print' and not understanding what they are reading. Another difficulty mentioned by one teacher related to weaker learners.

> I needed more time for this lesson. The majority got it. The weaker students had a little difficulty because it was in English. They were a little lost, especially the part with the music. I used that for them to focus on the expression, 'What's your nationality?' and ordering – the majority got it the second time around. It was generally ok. (Teacher Cs).

Weaker learners are frequently mentioned as concerns of parents and teachers in CLIL. In this example, there was cause for concern though the teacher seems to have helped all learners understand after repeating the listening activity which was related to a language structure. It cannot always be assumed that CLIL is suitable for all students. Here is an example where more linguistically-able students had an advantage with a more language-related task. That said, having witnessed the lesson, the author can say that this particular activity was complicated by the learners having more than one task to do at once.

One teacher highlighted learners' lack of attention and difficulty in following the lesson.

> [B]ut I would like them to pay more attention to the things I'm saying especially in the growing, in the planting because I wanted them to listen to my questions and just answer, follow the steps. I don't know, I ask them and then they do, but they are really in a hurry, I don't know why. (Teacher Rsem).

CLIL is demanding of students especially as lessons may be sequenced in such a way that there is a logical progression in terms of increasingly of complex content input and activities which facilitate uptake. This may be especially demanding of younger learners who lack the ability to concentrate for lengthy periods.

Difficulties mentioned in the Post-phase were voiced by only one teacher despite the others mentioning them in the Action-phase. Even in this case, the difficulty of weaker learners was not explained or elaborated on and was mentioned in the same instance as positive aspects of the experience. It is clear, therefore, that teachers have not dwelt on the negative, but have instead seen the experience in a positive light.

> Concerning the students' final outcomes, I think that most of them learnt and had the same success they would have if they were taught by the generalist teacher and in their mother tongue. Nevertheless, the weaker students showed some difficulties in learning the content through a foreign language. Despite this, I can say that learners liked this experience, they learnt not only the content, but also the language and new structures, and they are able to transfer what they have learnt in a different language to their mother tongue. So, they learnt and understood the *Estudo do Meio* content with and through English and they can explain and talk about it in their mother tongue too. (Teacher Rw).

Further categories identified in the Action-phase were learner 'needs' and 'L1' use. These were mentioned in two cases.

Learner needs

The sub-category of learner needs addressed different issues. One teacher focused on the unfairness of a lack of linguistic preparation of students in her context, and the other on the need for stimulating content and support from substitution tables.

> I think that the time is the problem because, for example, I think that they need the language and why not give them a language lesson for them to know the words and then to use it? But the problem for me because I work in the generalist teacher's class, is that I don't want to spend time on the language, but they will need it and … (Teacher CDsem).

This teacher clearly understood the necessity in some cases for language preparation in the language class prior to the CLIL lesson in which the same language may be used. CLIL is successful where there is such support for learners (and teachers). By not having that the task for both is made more difficult. It was frustrating for her as she was the language teacher of this class, but had decided against this preparation as she did not think it fair to the children who did not attend the optional language classes. Teacher C also commented on her lack of contact with the students as being detrimental. This may be compared with Teacher R who was both language and CLIL teacher and able to provide language support in lessons prior to CLIL lessons. Teachers were highly conscious of the need to provide language support in separate lessons to the CLIL lessons. As language teachers they were used to providing structured and graded grammatical input. In CLIL lessons there is no account for any grammatical hierarchy or the order in which structures are introduced. This can exacerbate the difficulty of teacher input and student output if appropriate and timely scaffolding is not provided to counterbalance deficits (see Coyle *et al.*, 2010: 35).

Use of L1

For use of L1, teachers described incidences of translanguaging, the learners' apparent preference for L1 despite having the L2 to communicate, and a genuine lack of L2.

> They drilled a little to pronounce the words accurately. To introduce the materials that objects were made of, I took to the class realia, objects from day life, for pupils to identify. They said the materials in Portuguese and I translated it into English. (Teacher CDw).
>
> Well, I'm going to try to [account for cognitive and linguistic demands of tasks and materials], but it's kind of difficult because they have a lack of vocabulary and a lack of structures. Even when they know how to say it in English they really do it in Portuguese so it's kind of a struggle. (Teacher Ri).
>
> I know they understand what I say or explain but when they are talking they feel more comfortable by using their mother tongue. (Teacher Ri).
>
> Despite the confusion, I realised by their answers, that they understood and were able to talk about what they had learned last lesson. However the answers were a mixture of Portuguese and English. (Teacher CDw).

Learners' use of L1 in CLIL lessons is common especially at the beginning of a CLIL experience where they are adapting to the new methodology. There are also authors who

say that its use should not be discouraged (see Pavón, 2012). In the examples above, it is clear that the content has been understood. Perhaps with time, i.e., more lessons in a sequence, there would have been more evidence of successful language output.

Benefits

Also during the Action-phase, one teacher mentioned the immediate benefits of her CLIL lessons to learners' awareness of healthy eating.

> At least they [know they] should eat more fruit, more vegetables, cereals, why they should do it. And I think it was so interesting for them because even now they keep showing me the food that they bring to school. So they've learned how to eat in a healthy way. (Teacher CDs).

In the Post-phase, another teacher mentioned the benefits of CLIL for learners and acknowledged her own learning from experience which led to a conviction in the approach as beneficial all-round.

> Having realized that students do learn the content, no matter what language they are using, surprised me. The younger the students, the better. They are like sponges, absorbing everything we say.
> After having taught some CLIL lessons, I also think that CLIL is a great opportunity for students. I say opportunity because I think that they really benefit from it, since they are learning two in one: a language and a content at the same time. (Teacher Cw).

During their CLIL projects, teachers not only thought about their own competences, but also learner needs, difficulties and achievements. They were able to identify specific characteristics of each of these during their practice and attempted to provide solutions to facilitate student learning in subsequent lessons. Their lesson plans provided further evidence of this awareness to support learners. They each anticipated learner needs differently in their plans. One focused on language provision, one on classroom management, and the other on higher order thinking. All of them were highly conscious of scaffolding to support learning. During their limited experience the teachers demonstrated awareness of important considerations in the development of learner competence in CLIL contexts.

Types of reflection on learners

There were few instances of reflection on learners in the Pre-phase (see Table 16). Where there were, these were Type 1 in two cases. In one case there were no

incidences. In this phase teachers highlighted concerns about learners in simple statements or questions but did not elaborate or attempt to answer. The teachers' concerns, though expressed simply, provided an indication of early problematising with regard to learners. However, they did not offer solutions or explanations. This is limited because without action it is difficult to imagine how learners will react and what their needs are. The fact that there was little reflection on them suggests that teachers' concerns were on other things, namely their teaching contexts and making stakeholders aware of CLIL.

There were many more reflections on learners in the Action-phase. There was evidence of Types 0, 1 and 2 across all cases, and in one case, evidence of Type 3. In two cases Type 1 was the highest type registered. In the other case it was Type 2. In this phase more sub-categories were evident. It is here that prior concerns manifested themselves as problems, student difficulties, and real needs. The high number of instances of Type 1 could be related to teachers attributing achievement or difficulty to specific causes and effects, but not providing any further analysis. It could also relate to their accounting for learner needs in their lesson preparation during lesson cycles when devising solutions to problems previously encountered.

In the Post-phase there were fewer reflections on learners and less variety in each case. Two cases registered Types 0 and 2, the other Type 1. In both Action and Post-phases detail provided was about learner achievements though more specific to teaching and learning instances during the Action-phase, and by the Post-phase more about what learners could do for themselves than what the teacher could do for them.

TEACHER	PRE-PHASE	ACTION-PHASE	POST-PHASE	KEY
C	**2x1**	5x0 6x1 **10x2**	1x0 **2x2**	Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory.
R	**---**	4x0 **13x1** 2x2	**1x0** **1x2**	
CD	**1x1**	1x0 **12x1** 7x2 1x3	**1x1**	

Table 16. Reflection types per phase: Learners

1.7. Teacher competences

This deductive category is by far the most vast and 'all-encompassing' of them all (see Table 17 for a list of sub-categories and Appendix 35 for a full list of themes that each category contains). This is because it contains sub-categories which are also deductive categories. The difference here, and the reason that 'teacher competences' warrants being a distinct deductive category in itself, is that it relates to teachers' awareness of their own needs, their strengths and weaknesses and overall sense of competence in their CLIL practice. Evidence in this category relates to the position of the teacher, the contribution and success of their efforts to the CLIL context and learners within it, and their awareness of what it takes to be a CLIL practitioner. This evolving CLIL teacher experience is mapped over the three phases of the study.

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
• Concerns about teaching competence • Context restrictions	• Acknowledging prior competences • Negative interference of ELT experience • Methodology • Supporting learning • Teaching aids and materials • Delivery of lessons • Learners • Classroom management • Teacher language • Strengths • Weaknesses	• Acknowledging prior competences • Negative interference of ELT experience • Awareness of competences and needs to teach CLIL • Teaching aids and materials

Table 17. Sub-categories for deductive category: teacher competences

Concerns about teaching competence

In the Pre-phase one category was detected across all cases. This was 'concerns about teaching competence'. Teachers had been asked about how they felt about implementing CLIL in the first questionnaire, and if they had any concerns about introducing it in their contexts, and in the second questionnaire how they felt about the prospect of teaching it. In their responses they chose to highlight concerns related to their own competences. Two issues were evident across two cases. One of these was related to the focus of lessons with one teacher referring to balancing the dual focus of content and language, and another on how to focus on content without focusing on language. The other issue was how to facilitate students' communication about content when they have little language.

> This is one of my concerns because I'm still not sure how to do CLIL lessons. I must find a balance between the two. (Teacher CDq).

> How will I get my students to speak in English about a content? (Teacher Cq).

Other points mentioned were about deciding which content to teach, checking students' understanding, and the extent of their output. One teacher mentioned the demands that teaching CLIL would make of her as a language teacher in terms of studying content and planning.

> The balance between the language and the content to teach is also difficult to a Language teacher. To teach CLIL is also very hardworking for a language teacher because apart from the content that a teacher has to study the activities must be well planned to help pupils with the content as well as with the language they need to communicate. (Teacher CDq).

Another teacher brought up the issue of knowing the subject specific language. This was her only concern in her reflections.

> My big concerns are knowing all that specific vocabulary about the subject you are going to teach. (Teacher Rq).

One teacher indicated that contextual limitations regarding the amount of time allocated to her CLIL lessons would put further demands on her competence to find the right balance of content and language in the time available.

> The time available to do that because I will have to teach in the generalist teacher's class.
> I'm concerned because I have to find a balance between content and language and the time available to do that. (Teacher CDq).

In the Action-phase, many more sub-categories were detected across the three cases. The teachers' examination of their competences during this phase was wide-ranging and thorough. Their reflections revealed a heightened state of awareness of their own competence brought about by frequent cycles of reflection on action during the lesson sequences.

Acknowledging prior competences

All three teachers acknowledged their competence as English language teachers and the positive influence their experience brought to the new challenge. The teachers were not novices and recognised that their experience was to their advantage. This was

mentioned early on in the CLIL experience and related mainly to their awareness of students' language needs and use of motivating activities.

> Once we start teaching and planning the lessons it becomes easier. As language teachers, we know
>
> - how to teach language
> - how to give them some help so that they can speak;
> - what structures and sentences they will need to express about a certain topic
> - how to support language when needed.
>
> Therefore, being a language teacher and having some experience made this job easier, yet a challenge. (Teacher Cq).
>
> I can say that my experience as a primary English teacher during these years have helped me to adapt to this new step better and to see it as a good future in the teaching – learning process. (Teacher Rq).
>
> The easiest part is thinking of activities that might motivate the students. Having 10 years of experience teaching very young learners, gave me a lot of advantages as far as activities are concerned. I am aware of my students' level of language. (Teacher Cq).

In the Post-phase two teachers referred to their language teacher competences yet again as having been beneficial during their CLIL experiences. One teacher mentioned her experience in planning, and preparing materials and activities which had contributed to her confidence during the new challenge. Another referred to her specific language teacher ability to understand students' language needs and when to provide support.

> (…) being a language teacher and, therefore, being able to understand my students' needs in relation to language. During the lesson I knew when I had to practice more vocabulary or a specific structure. (Teacher Cw).
>
> I have strengths and weaknesses like everyone else but the fact that I already have some experience in teaching has helped me during this whole new experience. (...) my experience in lesson planning, in creating own materials and resources and in thinking about engaging and motivating activities, has helped me preparing my CLIL lessons. I always tried to be well prepared as far as the content, language and the activities of the lessons are concerned. Due to my experience I felt more confident in teaching and I could anticipate and solve problems that came up. (Teacher Rw).

In both reflections there is evidence of teachers' articulating their expertise which goes beyond the technical side of teaching to being able to identify and respond to moments of need during lessons.

Negative interference of ELT experience

Though it was considered an advantage, their ELT background and experience also interfered negatively in their CLIL projects. This was manifested in a concern over preparation of new vocabulary items which incorporated the technique of drilling. This was mentioned by two teachers during the Action-phase.

> The topic that I taught was about family relations. As a language teacher I believed that Ss must know the family words in order to understand the family relations. So I spent a lot of time doing drilling, instead of providing better ways of giving the language and the content at the same time. (Teacher CDw).
>
> My fear was focusing on the language. I didn't want to do this. (Teacher Cw).
>
> As a language teacher I was more concerned about the language and I realized from the video that I spent too much time doing drilling and I didn't give them enough thinking time. (Teacher Cw).

One of these teachers referred to this during her final written reflection where she mentioned her initial frustration coming from a language teacher background though she explained how she was able to understand what to do and adjust her practice from self-observation of her video-recorded lessons and through the work of others.

> I'm a language teacher not a Science teacher, so apart from not knowing how to say some words in English, I had also to study the scientific content in order to teach my pupils. This research process was interesting but also time consuming. In the beginning, as a language teacher, I was more concerned about the language and it was difficult for me to understand how to introduce language and content at the same time. In my first lessons I spent a lot of time doing drilling and I wasn't able to provide correctly the content and the language. The pupils weren't active participants and they used Portuguese most of the time. The materials were good but I didn't use them properly because of my lack of experience. The videos that I saw of my lessons and the lessons of other colleagues, as well as the lesson plans from Floriá, had helped me to understand how to provide the language for, to and through learning by using substitution tables. (Teacher CDw).

This is a very personal and honest self-evaluation of her competences in a CLIL context. Teacher CD describes her initial struggle as a language teacher preparing for and teaching subject content, and how she was able to develop her competences. She analyses and interprets each stage in her development and a steady picture of growth

emerges. There is evidence of engagement in Type 2 reflection. We sense that she has a very clear awareness of herself as a teacher.

Methodology

During their practice, the teachers developed an awareness of their strengths and weaknesses regarding CLIL methodology. These related specifically to planning and delivery of lessons. It is evident that this awareness came about during practice.

> In fact, to have realistic answers we have to teach CLIL lessons. It's a little difficult in the beginning, but doable. (Teacher Cw)

One teacher was able to identify gaps in her plan compared with what she did in the lesson with regard to her use of scaffolding strategies.

> I compared my written plan with what I have done in class and I realized that some of the scaffolding strategies that I used were not in the plan. (Teacher CDs)

This indicates that not everything is consciously accounted for before giving a lesson and that teachers do things instinctively when in the classroom where they demonstrate "knowing-in-action" (Schön, 1983: 50).

> (...) and I can't plan for that. It's when I teach – everything comes together and I see it. I can't predict everything. It's like we make a skeleton and the body comes alive when we are in front of the children. (Teacher Cs).

During their practice they became more aware of their gaps in the preparation of learners for the language of the subject content. They found it difficult to predict language needed by them. Through reflection this became gradually more exposed.

> Then the second part of the lesson was a little bit strange. I think they (learners) enjoyed the lesson, but I found it quite hard to make them speak, especially in English. This topic is too abstract and it was very hard to predict what language they would need to talk. They understood (I think) but they didn't speak that much. (Teacher Cw).
>
> I'm going to try and focus a bit more on the language for and of learning. I want students to build up a whole sentence in English, even if simple, using the information, the knowledge, the content and the language they are learning or have learnt before. (Teacher Rw).

.

> I still think I have some difficulties in providing the language they need to speak. That's one of the things I still think I'm not able to do correctly. I have to work because for me it's always the same – they will learn it but I don't know if they are able to speak in English, you know. Probably they will understand it and explain to me in Portuguese, I'm sure, but will they be able to say it in English? (Teacher CDs).

Their reflections show that they became conscious of the need to provide more support for language. There is a sense that each teacher wrestled with preparation and practice of this in their lessons, surfacing difficulty and their ability to deal with it. There is a predominance of Type 2 reflection in these accounts.

Teachers mentioned different issues about drilling, one considering it important, one avoiding it.

> I didn't drill because I said it so many times and wanted to check if they were listening to the sentence. (Teacher Rs).

> I think I did the oral drill after, but I should do it before. I didn't think of that because that would be language, so I skipped that part…. That's the problem when planning CLIL. (Teacher Cs).

> They drilled enough to know how to pronounce the words so in terms of linguistic demands they had what they needed for this lesson. I think they learned the names of the different members of the family. (Teacher CDs).

Drilling is a feature of traditional foreign language lessons. It is clear from the teachers' comments that they struggled with what to do about it in their CLIL lessons. Their doubts ranged from whether to drill at all, to when to drill. For one teacher drilling was part of effective linguistic preparation of students.

Teachers became aware of how appropriate or inappropriate some topic areas were for CLIL and the extent of the time available to cover the ground.

> I will certainly choose a topic more appropriate to a CLIL lesson. Then because I have only 2 lessons to teach a subtopic I will have to plan it very carefully having into account the right scaffolding strategies and the language Ss will need to participate. I will use more worksheets to support the content and provide more language. Because it is what the generalist teacher used to do. (Teacher CDq).

This teacher was also conscious of bringing her teaching in line with that of the generalist's which shows that she learned from her observations of this teacher.

One teacher expressed her difficulty in articulating culture as a separate C during planning.

> I wouldn't include culture at all (in scaffolding taxonomy). It's in everything. I think it's hard to put in words. (Teacher Cs).

Teacher C's her opinion echoes that of many teachers and some CLIL experts (see Coyle *et al.*, 2010: 39) who understand the complexity involved in defining and compartmentalising culture when it is so inextricably bound with language and social interaction.

Teachers became highly conscious of the need to develop cognition as in the example below. Getting this right was a priority.

> Ok, the thinking skills is one of the things I have to do. Well, I think in this lesson I thought of the thinking skills, but it was too challenging for them, too challenging just for one lesson. Ok, ... because in two I think it would work better. (Teacher CDs).

Supporting learning

In the Action-phase there was evidence across all three cases of teachers' consciousness of their support for learning in the classroom. These related to their awareness of the need for scaffolding strategies and their attempts to use various types in lessons especially where they identified a high degree of challenge. They commented on the weaknesses in their attempts, their inappropriate choices, and the need for further scaffolding of written language.

> The main change will be scaffolding the language. I'm going to try to give them the language in a way that I hope they can speak more in English ... So exercises on the board, grids and tables so that they can see 'I can do this' or 'Animals can do that…' or 'I think that…' (Teacher Cs).
>
> I'm going to concentrate in scaffolding the language. I want to make sure they have the language to understand the content and use it. (Teacher Cs).
>
> It's always strange to see ourselves teaching. I realized that I spent too much time doing drilling. Probably next time I will try to use different scaffolding strategies to provide content and the language Ss need to participate. (Teacher CDsem).

Teachers acknowledged the weaknesses in their support of learners. They identified gaps where they had not considered the support needed for spoken and written production of language.

> At some point I realised I should have given them the language probably put it on the board. I tried but I don't know if it worked. (Teacher CDs).
>
> The second part of the lesson – *Speaking Activity* – was a bit demanding for the students because, as I said before, the new vocabulary was introduced with the story and even having a substitution table on the board they didn't have drilling or enough visual support to speak or to describe an animal. (Teacher Rw).
>
> Almost at the end of the lesson, I used a grid for them to speak that was confusing for them because they were saying "*lions eat meat*" and the grid showed "*I think that meat is food for the lion*". This structure was too complex and it was not necessary, since they understood the idea and concept of the food chain. (Teacher Cw).

This was often understood when the teacher had to intervene to provide individuals or groups with structures, or read instructions or texts out loud.

> They understood when I read the sentence because I went to them individually. I told them and I asked them and all of them knew the answers, but when they had to write they had some difficulty, but I think the concept ... I think they got it very well. (Teacher Cs).

Delivery of lessons

There is evidence in all three cases that teachers became conscious of the way they gave their lessons though they focused on different aspects of this delivery. One teacher became very conscious of how much time she spent talking. Another was aware of the way she spoke and her ability to monitor learners and encourage participation. This teacher also remarked on her rapport with students, her ability to detect their needs and her gestures. In the account below, she conducts a type of self-appraisal of her performance in lessons.

> From watching the videos of my lessons I can say that I made an appropriate use of the teaching aids available as well as tried to be as organised and as clear as possible in order to help the students' understanding. I can see that I have a good relationship with my students and that I'm aware of the students' individual needs and tried to see their needs during various parts of the lessons. I know I was a bit nervous, because I was being observed, but I also know I was well prepared and I was confident as far as the lesson content and activities were concerned. I could also observe my facial expressions as well as my body and

> gesture language that I always use because I think they are essential and students are used to it. (Teacher Rw).

Another teacher became more conscious of her tendency to drill language items, her need to provide for more careful explanations, to change route to help learner understanding, and her own use of gesture to scaffold learning input.

> I did a lot of drilling and I didn't realize that. I thought, 'no, I didn't', but then I was seeing the film and I realized I did. (Teacher CDs).
>
> At this point I should have stopped the exercise and explained again but because I was running out of time I decided to move to the other exercise that was even more difficult than the previous. Of course the confusion was installed. The pupils were constantly calling asking for my help but I wasn't able to help everyone. (Teacher CDw).
>
> From watching myself teach I realized that I use a lot of gestures to help meaning and to help pupils' comprehension. I noticed pupils enthusiasm but also their noise during the activities. During the activities I noticed some moments of learning and of thinking. I also realized that the linguistic and cognitive demands were balance according to pupils' level. (Teacher CDw)

Most of this awareness came from the teachers' observations of the films of their lessons. The films gave the teachers an opportunity to relive their CLIL experiences, recall how they felt, and why they did certain things. These were extremely useful in helping teachers become conscious of their actions providing them with confidence where they could detect elements of good practice, and opportunities for analysing this where it was not successful. They were able to improve their posture and strategies in subsequent lessons. These are all compatible with the findings in Tripp and Rich's (2012b) survey.

Learner needs

It was clear that the practice of CLIL made teachers aware of their learners' needs. This was evident across all cases. Needs were related to learner language preparation and output. They were also conscious of the importance of checking understanding and were able to realise when learners had understood. One teacher became conscious of the need to give learners time to think, in order to ask questions and to express themselves.

> First I have learnt that I don't give enough time to my students to think. I have to pause more often. And the other thing is that I worry too much about noise,

> and I keep telling them to be quite, not giving them time to express themselves. (Teacher Cw).

They understood more about learners including what they were and were not capable of, and how they reacted to the scaffolding they provided. One teacher thought learners could perceive the difference between English language lessons and CLIL lessons.

> They know that I am teaching "Estudo do Meio" so they don't , they know that they are not learning English, they are learning "Estudo do Meio" although I teach them in English and they answer very naturally in Portuguese. They try to answer in English and I think that's the best part. I think they really, really enjoy it. (Teacher Cs).

Classroom management

Across all three cases there was evidence of teachers' reflection on classroom management. Two teachers mentioned that they did many things at once, often interrupting themselves to focus on something else. They acknowledged that this may have been confusing to students, but that they seemed to be able to cope.

> Confusing. Confusing. Because I say, 'This is a Spring plant, no, shhh, hands up', and then I go on. It could be a little confusing but I have to check if they are listening or talking. Maybe I could be a little more calm and say, 'I'm not going to read this until you're quiet and listening', and wait 45 minutes, you know. (Teacher Rsem).

> Well, first of all I hate my voice and I hate seeing myself and I also notice the same thing as Teacher R. 'Shh, shh', I keep on hearing, 'Shh, shh'. I was making a question and 'shh, shh', and I don't know how I can … two or three things at the same time … too much TTT [Teacher Talking Time]. The lesson was planned and they didn't have a lot of time to speak. It was really hard to find tasks to make them speak and even if I did, I don't think I would give them too much time. (Teacher Csem).

Other aspects of classroom management were mentioned. These included task management and the difficulty of organising different interaction patterns, keeping students on track, dealing with discipline, and managing time.

> It was difficult to get the whole class attention and to finish the worksheet together and on time. I think that students understood what they had to do in the worksheet so they were eager to do it by themselves. (Teacher Rs).

> The worksheet was clear and easy to understand, but I lost some students. Some were doing it as an individual activity, the others were waiting and we didn't have enough time and I was a bit ... lost ... (Teacher Rs).

> I noticed that some pupils were distracted and not paying attention. I was asking each pupil individually while the others were waiting for their turn without doing anything. If pupils had asked each other, they would probably be more focused. (Teacher CDw).

Although the teachers were all experienced they still found classroom management a challenge. CLIL had clearly brought them out of their comfort zones and made them realise that the change in methodology demands further adaptation and competences of which they had not previously been aware.

Teacher language

One teacher became increasingly more aware of her use of the English language. Positive and negative points were noted. On the positive side, the teacher used L2 almost exclusively in her lessons and resorted to L1 as a final resort to aid understanding. This teacher was also aware of her incorrect pronunciation of some words – words she was unused to saying in her regular English language lessons.

> I used English all the time and pupils used also English as much as possible. The pupils were very engaged, motivated and they participated a lot too. (Teacher CDw).

> During the lesson, I felt the need to use Portuguese for one or two points that I think they didn't understand – the part about the prediction, because they didn't understand the word. They're not used to it, to doing this kind of experiment. (Teacher CDs).

> Then I realized that I had mispronounced some words. The next time I will [give] more attention to this fact by trying to know exactly how to pronounce it correctly. (Teacher CDw).

Strengths

All teachers identified strengths during their CLIL practice. These have already been indicated in other parts of this section. Common strengths identified across cases were to do with their preparation for CLIL lessons and materials, creating the right atmosphere for lessons, understanding learner needs, preparing learners for tasks, ability to detect learning, ability to motivate learners, and on the spot solutions to problems.

> One of my strengths is the fact that, as I try to be well prepared as far as the content and the activities of the lesson are concerned, I feel more confident and can anticipate or solve problems that may come up. (Teacher Rw).
>
> In my last CLIL lessons I think I got the pupils motivated and involved on the tasks. The materials were appropriated and challenging in terms of cognitive demands. I encouraged pupils' participation in English by providing the language they need for, to and through learning. I provided examples and used gestures to help pupils' understanding. (Teacher CDw).

Weaknesses

Weaknesses commented upon by all teachers were their lack of awareness of time – for students to think, to do tasks, and to speak. Other weaknesses of individual teachers were lack of language preparation of students, not correcting pronunciation, lack of clarity in instructions, dealing with multiple task demands, lesson planning – formulating aims, content subject preparation, and not understanding that noise related to student engagement in tasks.

> I think I rushed a little in some activities, not giving them time to think and answer to my questions. I was afraid to focus too much on language (being this a CLIL lesson). I didn't give them time to finish their sentences and correct their pronunciation. With the song I could have practised more the use of both questions. Next time I'll need to focus also on language, especially when it comes to answering or producing language. (Teacher Cw).

Teachers were able to identify weaknesses in their performances, analyse the causes and the effects of these on students' learning, and provide solutions to improve upon them. There is a sense that a pattern in reflections on their performance was developing in this phase similar to what Gibbs (1998) describes as a "reflective conversation" entailing description, judgement and analysis, but going beyond into conceiving new plans of action (see Chapter 3. p. 160). By the Post-phase, teachers' reiterated their strengths and weaknesses, and awareness of the competences required to teach CLIL in their final written reflections.

Teachers were aware of a wide number of issues relating to their teaching competence during the CLIL experience. Some were related to their previous experience, but many new issues arose in practice as they grappled with the "multiple layers of expertise" needed to teach CLIL (Marsh *et al.*, 2010: 5). They were able to identify their prior competences as language teachers, and how these could be applied to CLIL, as well as

gaps in their content and pedagogic knowledge. Their experience as language teachers with a high degree of linguistic proficiency was able to serve them well in that they could use strategies from language teaching, and knowledge of the needs of language learners in their CLIL lessons. They were highly sensitive towards language preparation and use. It could be said that they displayed effective L2 pedagogy in their CLIL which consists of "exposure to input", "content-oriented processing", "form-oriented processing", "(pushed) output", and "strategic language use" (see de Graaff *et al*., 2007 for a presentation and discussion of an observation tool for CLIL teachers using descriptors based on principles from second language pedagogy). However, there were gaps in their academic language knowledge and pronunciation of key words. Even though they were language teachers they had difficulty planning language *for, of, through* learning in academic contexts. This is likely because they have been unused to this in their regular teaching contexts which have not focused on or needed students to demonstrate CALP. However, teachers developed new competences such as scaffolding language and cognition, new materials and strategies to enhance learning, and the awareness of the need to balance and support cognitive and linguistic demands in tasks and materials. They became more self-aware of their developing competences through viewing the videos of their lessons.

Besides giving CLIL lessons, two of the teachers demonstrated their developing competence in the production of formative and summative tests for students. Summative tests were in Portuguese though the content of the CLIL lessons given in English was tested. The formative tests contained a mixture of sections where content was tested in Portuguese or English and in some sections both languages were used in the instructions. It was clear from the range of examples that teachers were experimenting with testing of CLIL (for examples of tests see Appendix 36). Strategies ranged from matching exercises and labelling diagrams to giving explanations about content given in English, in Portuguese. Support was given through pictures and diagrams. Students had to synthesise and apply content and language knowledge. Only in sections in Portuguese were there questions which demanded fuller answers and explanations. Overall, students did well in the tests and there was no notable interference from either language in their answers.

Types of reflection on teacher competences

There were few instances of reflection on their competences in the Pre-phase with one case not registering anything at all (see Table 18). Where there were, these were Type 1.

TEACHER	PRE-PHASE	ACTION-PHASE	POST-PHASE	KEY
C	---	3x0 12x1 **27x2**	**2x1**	Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory.
R	**1x1**	3x0 **16x1** 13x2	**1x1**	
CD	**2x1**	1x0 17x1 **21x2**	**1x2**	

Table 18. Reflection types per phase: Teacher competences

In the Action-phase, there were instances of types 0, 1, and 2 across all cases. Type 2 registered the highest number of reflections in two cases. There were also high numbers of Type 1. In comparison there were low numbers of Type 0. The dominance of Type 2 in the Action phase illustrates the wrestling that teachers must have undergone within themselves with regard to their competences. They were at a heightened state in the Action-phase, not surprisingly as they were undergoing regular cycles of reflection in and on action where they would constantly problematise action and evaluate it in light of their practice. By the Post-phase, there was less reflection on competences. In two cases there was evidence of Type 1 and in one case, Type 2. This can be explained by teachers once more summarising their learning and being content to state what they have learned rather than the process of getting there.

1.8. Personal and professional development

It should be remembered that all three teachers were experienced teachers and had embarked on the Masters in Teaching English and another Foreign Language in Basic Education at FLUP to upgrade their qualifications to this level and to have a professional qualification in the area of teaching English in primary schools. It goes without saying that they were expecting this to contribute to their personal and professional development. The inclusion of CLIL in the practicum of these teachers had been one way of ensuring a new challenge which could bring about such development. Through the data-gathering tools implemented across the three phases of the study,

teachers were asked directly about the CLIL experience in relation to this. The author was interested in finding out in what ways that growth would be manifested. This would involve the teachers in examining the extent of their growth across all areas of their practice and articulating it into coherent expressions of development. The sub-categories detected relate to how teachers understood their personal and professional development (see Table 19 for a list of sub-categories and Appendix 37 for a full list of themes that each category contains).

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
• Personal/affective • Skills development • Obstacles	• Personal/affective • Self improvement • Skills development • Knowledge &Understanding • Effect on practice • Future interest	• Personal/affective • Self improvement • Skills development • Knowledge &Understanding • Effect on practice • Future interest • CLIL as part of professional development

Table 19. Sub-categories for deductive category: personal and professional development

The sub-categories of 'personal/affective' which refers to teachers' emotions, and 'skills development' were present in all phases but not detected in all three cases.

Personal/affective

In the Pre-phase, this sub-category was detected in two cases. Both cases mentioned the 'challenge' posed by the CLIL projects. In addition, one case expressed mixed emotions of excitement, curiosity and anxiety at the prospect of teaching CLIL.

> I'm anxious and very excited. But I'm looking forward to starting and I want to teach more than one lesson of the same topic to see how it goes. (Teacher Cq).

In the Action-phase, the sub-category 'personal/affective' was detected across all cases. The sense of challenge was detected in the reflections of two teachers with one remarking that it was a 'welcome challenge'. Challenge was a constant as teachers were always experimenting with new techniques and different content.

> This was a real challenge for me, because I had never done an experiment, nor as an English teacher nor as a student, as far as I remember. (Teacher CDw).

Further curiosity and motivation were driven by teachers' reading and their own practice.

> [A]fter reading a lot of articles about it online and in books, I felt curiosity in trying, and seeing the results. After having taught some lessons I felt motivated. (Teacher Cq).

Positive emotions were detected in two cases with teachers expressing satisfaction with what the new experience was bringing with one saying that it was rewarding because she could see it working for the students who were extremely motivated.

> Above all, this experience has been rewarding because I have seen that it is possible to teach young learners about a subject in English and they do understand it. But most important is that I have seen that they feel more motivated to learn and this happens because they feel it is challenging so they get more engaged in classes. My students made a real effort to participate and to pay attention in class. I've seen this by observing my lessons in the videos. After watching them, I saw how motivated the learners were and that they were really understanding what was being taught. (Teacher Cw).

There was a sense that early success was fuelling teachers' own enthusiasm. Positive feelings about teaching and re-engagement with what induced these can enhance teacher motivation (see Boud *et al*., 1985: 11).

> I want to continue this work further more because I'm happy with what I have been doing so far. (Teacher Rw).

Frustration was also detected in the reflections of one teacher. This was related to conditions of the context where she carried out her CLIL project which determined the choice of content for her lesson and the time available which led to uncommon mistakes in teaching.

> This first CLIL experience was not easy for me. I didn't like the topic. I wanted more time to teach the topic in a different way. I felt the pressure of the time and I did some mistakes that I usually don't do (knowing the Ss difficulties and moving to other exercises). (Teacher CDw).

She was also frustrated at the students' use of L1.

> As a language teacher I was more concerned about the language and at the end I felt frustrated because Ss used a lot of Portuguese. I wasn't able to provide the language they needed to speak. (Teacher CDw).

At this stage the teacher must have felt that she was not developing in any way. However, towards the end of her practice, she revealed a sense of progress in her development referring to herself as “a CLIL teacher”. The extent to which CLIL is demanding in terms of preparation and practice was also mentioned. This is also an indication of her understanding of what CLIL entails for teachers.

> In my opinion I think I evolved a lot since the beginning as a CLIL teacher. As a CLIL teacher there are important things that we have to have into account while preparing the lesson. The tasks are very important as well as the materials. They must be appropriate to pupils’ level and they have to be challenging in terms of cognitive demands. The lesson has to be based on the content, but we have to provide also the language of, for and through learning. The scaffolding strategies are very important too, because they will support pupils during the process of learning. At this point I think that I can do that in a more effective way. (Teacher CDq).

These are emotions which came about as a result of engaging in CLIL lessons. By the Post-phase, two cases mentioned positive feelings derived from the experience saying that it was worthwhile, rewarding, and a great experience, with one adding that her involvement drew admiration from colleagues at her school.

> Teaching CLIL for me has been a great and new experience. I had never thought it would be possible to teach a content, such as, *animal habitats* or *food chain,* completely in English and without focusing on the language entirely. When I talk about this with my other colleagues in the *Agrupamento EB 2,3 de (...)* they stay amazed. Their reactions are: “Really? Is it possible? How can the kids learn? Do they understand you? Do they learn?” I even have one of my colleagues of 2º ciclo, that teaches Maths and Science to our class 5ºI that told me “Next year, if we stay here and have again the same class, we can try and do CLIL. I’d like try to teach Maths or Science in English. If we have *Estudo Acompanhado* together again, we’ll try, ok?” I was really surprised to hear that. I said yes, of course. (Teacher Cw).

This was indeed an endorsement of the achievements of Teacher C and an example of how CLIL can spread at local, grassroots level.

Skills development

The sub-category of ‘skills development’ was detected early on. One teacher saw CLIL as providing an opportunity to learn and apply new strategies and techniques.

> I think that teaching CLIL seems very challenging because it is something new and it is something I'm still learning and knowing about. Being something new I can have the opportunity to learn and apply new techniques being engaged with new pedagogic issues and strategies. (Teacher Rq).

This is reiterated in the Action and Post-phases by the same teacher and another one who refers specifically to technology.

> CLIL is influencing positively both my personal and professional development. I think that teaching CLIL has been very challenging because it is something new and it is something I'm still learning and knowing more about. Being something new I'm having the opportunity to learn and apply new techniques being engaged with new pedagogic issues and strategies. This new experience is something that has been helping me make a different kind work from that I was used to doing. In addition, it is also the right work to do with the class I've chosen once they are used working in a different methodology. (Teacher Rw)

> All in all I worked hard and I did an effort to improve my CLIL lessons by using a Powerpoint presentation and by getting real plants, but I think it was worthwhile. (Teacher CDw).

Another teacher referred to the way CLIL had influenced her materials writing with particular reference to content and thinking skills.

> And because my intention in the future is to continue writing course books for 2º and 3º ciclo, CLIL is already influencing me in the way I choose the materials. While choosing topics, activities and new strategies, I always try to think of what content I should focus on. Finally, CLIL made me think even more about *thinking tasks*. And I'll take this knowledge into the course books I'm writing. (Teacher Cw).

Self-improvement

The category of 'self-improvement' was detected in two cases in the Action-phase. By the Post-phase both highlight their growth as a teacher brought about by the experience, one saying that it made her a better teacher and that she would like to continue the experience.

> I also think it is important to say that it was worth doing CLIL, I felt I grew up as a teacher because I experienced a new challenging and rewarding practice and I learnt from it very much. I'm willing to include CLIL in my future teaching practice but, as I cannot foresee the future, I will have to wait and see the possibilities of doing it. If I, luckily, have the opportunity I had this year concerning the school director, the school community, the parents and the students, I will definitely continue my work. If the school environment is

> different I will try to introduce CLIL and see if it is possible to take a chance because now that I tried it, I want to go on with it! (Teacher Rw).

In Questionnaire 5 (see Appendix 14) which the teachers completed in the Post-phase, all but two responses to question 3 were 'a lot' or 'quite a lot'. For the statement of the extent to which CLIL has contributed to 'knowledge of other subjects', all three teachers indicated 'a lot'. The two responses which did not correspond to 'a lot' or 'quite a lot' were for 'knowledge of other methodologies' and 'language competence in non-CLIL lessons' for which each received one response of 'not very much'. All in all, it would seem that teaching CLIL lessons led teachers to become aware of a range of 'improvements' to their knowledge and practice.

Knowledge and understanding

The category of 'knowledge and understanding' was detected across all three cases in the Action-phase and in two cases in the Post-phase. In the Action-phase all three teachers mentioned language though in different ways. One mentioned the need to contextualise it in language lessons, another that she had a better understanding of the role of language to explore themes, and the other teacher mentioned the importance of communicating content regardless of the language used, as well as awareness of the language teachers and students need.

> CLIL has been an enriching experience. I have learned that as a teacher we should teach a language in a more contextualized way. Teaching language and content together will make the learning more meaningful and interesting for the pupils. (Teacher CDw).
>
> I've been learning a lot not only as a person but also as a teacher. Now I can see the language not only for the language itself but also as a way to explore themes that have to be explored in the primary. (Teacher Rw).
>
> I pay more attention to the language I use and I want to make sure they understand what I say. When preparing a CLIL lesson I think more attentively about the language I need to use to speak and the language they will need to speak. (Teacher Cw).

This increased 'consciousness' of language and language use brought about by CLIL is consistent with one of the benefits to teachers highlighted in The European Profile for Language Teacher Education – A Frame of Reference (Kelly *et al*., 2004: 77).

All teachers mentioned that they had learned about the importance of content in lessons. For one, this also meant integrating more academic content in language lessons. Two teachers mentioned an increased awareness of the primary curriculum. The new opportunities brought about by the experienced were also mentioned.

> Teaching CLIL is a great experience. I'm having the opportunity to do things and to teach themes I have never thought about doing. It has been helping me grow also as far as personal and professional development is concerned. (Teacher Rw).

The experience made one teacher question the purpose and utility of what students are taught at school.

> CLIL is helping me think about what we, teachers, are actually teaching our students. Is it useful for them? Is it interesting and practical?
> CLIL has made me think that it is possible to go beyond the language. A foreign language teacher can be much more. (Teacher Cw).

The sub-category of knowledge and understanding was detected in the Post-phase in two cases though different things were mentioned. One teacher mentioned just one point about CLIL identity which she learned depended on context and lesson focus. The other teacher mentioned points which related to new knowledge, alternative methodologies, and going beyond language teaching. This is clearly positioned towards Type 3 reflection.

> The CLIL experience I had gone through this year influenced positively both my personal and professional development. Although it was something new, and an experience I'm still learning and want to know more about, it was an experience that gave me the opportunity to learn and apply new techniques, being engaged with some new pedagogic issues and strategies. It has helped me doing a different kind of work from that I was used doing. I learnt a lot not only as a person, but also as a teacher and now I can see that there are other ways of teaching my students the language not only for the language itself, but also a way of exploring topics, that are to be explored in the primary, in a natural way. I'm glad with what I achieved so far and whenever possible I want to continue this kind of work further more. (Teacher Rw).

Effect on practice

In the Action-phase the sub-category 'effect on practice' was detected in two cases. Teachers mention different effects – trying to teach more than language (in language

lessons), focusing on thinking skills, providing students with time to think, and creating more cognitively demanding tasks and use of scaffolding strategies. By the Post-phase, both teachers reiterated some but not all of these: providing thinking time, scaffolding strategies, and more cognitively demanding tasks.

> At this point, I can say that CLIL has changed the way I teach. I spend more time thinking in scaffolding strategies and planning tasks that are cognitively more demanding. Now when I'm planning my language lessons I always try to teach content using the CLIL approach. (Teacher Cw).

> Now I am better than what I used to be. While teaching I have in mind that I need to stop and give them more time to think. (Teacher Cw).

There was no specific mention of personal and professional development in two cases during the lesson sequences.

CLIL as part of professional development

Also in the Post-phase was the sub-category 'CLIL as part of professional development', mentioned in two cases as a necessary component of professional development.

> Every teacher should have some kind of course related to CLIL, just to understand how it works.
> *How can I teach about animal habitats in English if they are Portuguese?*
> *Will they understand me? What can I do to get to them?*
> *What kind of material is there in the market to help me?*
> *Are there any examples for me to see and compare?*
> All these questions should be answered in this course.
> It is also important they could experience what it is like, by having a class and trying to negotiate with the generalist teacher CLIL lessons. (Teacher Cq).

This is indeed an endorsement for CLIL and CLIL teacher education. It validates the teacher's experience as having been worthwhile. Her personal questions to herself relate to her consideration of what she believes teacher education for CLIL should include. They relate specifically to methodology, learner needs, materials and observing CLIL in practice elsewhere. Her suggestion of what teacher education could comprise points to the inclusion of practical experiences as a means of providing for teacher learning.

The teachers manifested their personal and professional development in a number of ways, through expressions of their emotions towards CLIL, the skills and knowledge they acquired, how this had transformed their practice and how they believed it should be part of the teacher education of others. They mentioned how experimenting with CLIL had helped them grow as people and develop as professionals. It is clear that they were indeed changed by the experience. Growth was not only described as acquiring new technical skills, but in new understandings about teaching and themselves as teachers.

> The way I plan my lessons activities and materials have changed, because now I spend more time thinking in my scaffolding strategies and planning tasks that are cognitively more demanding. I keep asking them the "why" question to make them think. Personally and professionally I think that this CLIL experience and knowledge of what CLIL is, helped me to become a better teacher. (Teacher CDw).

Type of reflection on personal and professional development

There was little direct reflection on their prospective personal and professional development in the Pre-phase (see Table 20). For one case there was none. In two cases there was evidence of Type 1. Teachers' comments were vague and speculative. Without undergoing any practice of CLIL it was probably difficult for the teachers to say how it would contribute to their development.

TEACHER	PRE-PHASE	ACTION-PHASE	POST-PHASE	KEY
C	**1x1** **1x2**	 **3x2** 2x3	 **6x2** 1x3	Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory.
R	**1x1**	**2x1** **2x2** 1x3	1x0 1x1 **2x2** **2x3**	
CD	---	2x1 **4x3**	 **2x3**	

Table 20. Reflection types per phase: Personal and professional development

In both early and late action phases Type 2 and Type 3 reflection were detected in equal numbers. The teachers mentioned many more issues and emotions. This was likely due to their proximity to practice. In the Post-phase they were able to articulate the effect on

their professional development well, citing multiple influences and new understandings about themselves in relation to the experience.

A great many sub-categories were detected in teachers' reflections during the study. Within these sub-categories many wide-ranging themes were also noted. Some sub-categories appeared and disappeared over the phases of the study, others remained as persistent issues that teachers worked on, testing out their ideas and reviewing them in cycles of reflection. Generally, there were fewer sub-categories and themes in the Pre- and Post- phases with the exception of 'context' and 'understanding of CLIL' which both had more in the Post-phase than the Action-phase likely due to the teachers' prioritising their reflections on other foci which were closer to imminent practice during the Action-phase. There was also considerable overlap of sub-categories within deductive categories, in particular 'teacher competences' and 'methodology'. This may be viewed positively and negatively. From the former perspective, overlap can be seen as replication which is what multiple case studies involving cross-case analysis aim to detect. The opposite perspective would see this as a fault of the methodological design of the study with regard to the choice of deductive categories particularly 'teacher competences' which has a broad coverage of many themes. In addition to this, foci frequently converged in teachers' accounts making separation into categories difficult.

2. Types of reflection within and across phases

In this section, the findings related to the types of reflection the teachers engaged in within and across phases of the study are presented. The findings focus on the similarities and differences of the broad tendencies towards specific types of reflection of the three teachers. This is done by examining and comparing frequencies of instances of types of reflection of each teacher. Frequencies were obtained by combining the number of instances on all foci in each phase for each teacher. The types of reflection referred to are Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory as defined by the rubric used for analysis (see Appendix 3). As findings are presented, they are also interpreted.

Table 21 below presents the frequency of types of reflection for each teacher per phase of study. The table may be viewed horizontally to analyse individual teacher's types of

reflection across phases, and vertically to compare tendencies across cases. Numbers in bold represent majority types of reflection.

TEACHER	PRE-PHASE	ACTION-PHASE	POST-PHASE	KEY
C	**10x0** **10x1** 2x2	19x0 41x1 **68x2** 5x3	2x0 3x1 **17x2** 2x3	Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory.
R	**11x0** 7x1 3x2	18x0 **72x1** 33x2 4x3	**11x0** 6x1 9x2 4x3	
CD	**11x0** 8x1 1x3	4x0 50x1 **58x2** 10x3	4x0 6x1 **12x2** 9x3	

Table 21. Types of reflection per case per phase of study

Comparing the three teachers at each phase, it can be seen that in the Pre-phase the majority type of reflection for all teachers is Type 0, followed by Type 1. However, in one case there were equal numbers of Type 1 reflection. Other types of reflection were also detected within cases. In two cases these were Type 2, and in one case evidence of Type 3. Instances of Types 2 and 3 were low. Higher numbers of Type 0 could have been due to the teachers not being able to think about or fully comprehend an educational approach they knew little about and had never been involved in before. CLIL could have been seen as too abstract even to these experienced teachers. This indicates that practice is necessary for more in-depth reflection. In the study by Lee (2005) it was noticed that reflection during the teaching period was much deeper than during observation. The teachers in the current study did not undergo a period of pre-teaching observation of a CLIL teacher, but rather limited observation of the generalist teachers teaching content in L1. However, the evidence of other types of reflection suggests that there were early attempts to wrestle with the phenomenon before the Action-phase commenced.

In the Action-phase all four types of reflection are registered for all of the teachers. However, numbers are very different across cases. In this phase the majority type of reflection in two cases was Type 2 and in one case Type 1. The lowest number for types

of reflection in two cases is Type 3. It is the second lowest in the other case (Teacher CD). The lowest for this one is Type 0. Highest numbers of reflection types are for Types 1 and 2. Teachers were clearly engaged in more analytical and interpretative thought during this phase of their practice. The Action-phase covered the practical experience of CLIL of all teachers. This phase involved the teachers in reflective cycles during their preparation for teaching, their actual classroom teaching, and after teaching, i.e., reflection *for, in* and *on* practice for each lesson in all sequences of lessons.

The types of reflection on lessons in the lesson sequences varied across cases. A lesson sequence in this study is defined as one or more CLIL lessons on a specific content. There was variation in the number of lesson sequences and lessons within sequences across cases. This was due to the contextual conditions in which projects were conducted in schools. In two of the cases there were three lesson sequences and in one, five. In one case (Teacher R) reflections were consistently Type 1 across sequences. In the other two cases, there were changes in types of reflection across sequences. For one case, (Teacher CD) there was a tendency toward Type 2 in the first sequence, both types 1 and 2 in the second, and Type 1 in the third and final sequence. In the other case (Teacher C), where there were five sequences, the first two indicated a tendency towards Type 1 and the following three, to Type 2.

TEACHER	SEQ 1	SEQ 2	SEQ 3	SEQ 4	SEQ 5
C	1	1	2	2	2
R	1	1	1	---	---
CD	2	1/2	1	---	---

Table 22. Majority reflection type per lesson sequence per teacher

Teacher C taught five CLIL lesson sequences. The first consisted of one lesson on the theme of ‘nationalities’. Types 0, 1 and 2 reflection were evident in her post lesson written reflection. Type 1 was the most common. The second sequence also consisted of one lesson. This was about ‘feelings and emotions’ and also included a practical experiment about measuring heartbeats. Types 0, 1 and 2 reflection were evident with Type 1 in a majority. The third sequence consisted of two lessons about ‘animal habitats’. Types 0, 1 and 2 reflection were evident with Type 2 in a majority. The fourth sequence was the longest and consisted of three lessons about ‘food chains’ where Type

2 reflection was the majority type evident across lessons in both spoken and written reflections. Types 0 and 1 were also present though in lower numbers. There was a decrease in the numbers of reflections as the sequence progressed. In the fifth sequence which consisted of one lesson about 'magnetism' the majority type of reflection was Type 2. This teacher evidenced a high number of Type 2 reflections during post-observation discussions about her lessons. Type 0 only ever appeared in written reflections. It could be said that her higher number of CLIL lessons gave her more opportunity to familiarise herself with CLIL methodology and learn from her experience. She did however set new challenges for herself by teaching a variety of content which provided her with more opportunities to reflect and draw further conclusions from her varied experiences (for types of reflection over lesson sequences for this teacher, see Appendix 38).

Teacher R conducted three sequences of CLIL lessons each consisting of three lessons. She had taught more CLIL-type lessons over the academic year owing to the nature of the curriculum project she was engaged in with the generalist teacher she was working with. In the first sequence, which was about 'plant reproduction', there were instances of Types 0, 1 and 2 across the lessons. In lessons one and two the majority type was Type 1 and in the third lesson it was Type 2. In the second sequence about 'animal body features' it was Type 2 in the first lesson and Type 1 in the second and third. There were higher numbers of instances of reflection in the third lesson of this sequence. In the third sequence which was about 'food chains', the majority type was Type 1 in the first and second lesson, and Type 2 in the third. There were very few reflections in this sequence. In two sequences this teacher moved from Type 1 to 2 by the third lesson. The majority type of reflection noted overall was Type 1. This may well have been the result of her experience becoming more and more tacit, or a feeling that it did not need fuller analysis when it went well. Her written reflections on her lessons became shorter and shorter as the academic year progressed (for types of reflection over lesson sequences for this teacher, see Appendix 39).

Teacher CD taught the fewest number of CLIL lessons. Her CLIL experience amounted to five lessons only, two in the first and second sequence and one in the last. In the first sequence which was about 'family relationships' there was evidence of Type 1 and 2 with the latter in a majority. In the second sequence about 'plants' there was evidence of

Types 1, 2 and 3 in the first lesson with Type 2 in a majority. By the second lesson there was a majority of Type 1 and evidence of 0, 2 and 3. In the final lesson sequence about 'magnetism', there was a majority of Type 1 though instances of 0 and 1. In all three sequences there was more evidence and range of reflection in the written reflections of this teacher. Despite giving the fewest number of CLIL lessons, this teacher engaged in all types of reflection and had the highest number of instances of Type 3. She had less time to get used to CLIL, to develop a routine and repeat strategies which may well have led her to problematise her lessons more and hypothesise on ideal conditions for CLIL (for types of reflection over lesson sequences for this teacher, see Appendix 40).

The higher numbers of Type 1 and 2 reflection in the Action-phase indicates that action promotes more analysis of practice and a consideration of learners and learning which comes with an acceptance of the responsibility of teaching. For two teachers, Type 2 reflection was the majority type during this phase. There was more of a tendency to wrestle with practical issues, to solve the problems of teaching, and to be concerned with how to improve one's practice for the sake of learners from one teaching act to the next while things are still fresh. This led to multiple types of reflection as their ideas were integrated, tested out and commented on. The instances of higher levels of reflection in this phase indicate that teachers were able to shed light on what drove their actions rather than just provide a quick-fix solution to their practice, the difference between "problem solving" and "problem setting" (Schön, 1983: 40). This was more prevalent where there was less experience of CLIL or when they were trying out a new technique. Where there was more experience, as in the case of Teacher R who had been engaged in CLIL-type teaching before this academic year, there were fewer instances of higher level reflection. This could mean that her teacher knowledge may have become increasingly more tacit, and her action more routine and therefore more difficult to problematise and articulate (Davis, 1995: 244).

The reflection types of the three teachers varied within and across lesson sequences. A pattern of progression through reflection types from Type 0 through to Type 3 was not established within lesson sequences. It has been noted in other studies (see for example Ross, 1995 and Lee, 2005) that types of reflection do not necessarily change over time. This adds weight to the argument that reflection cannot be seen as linear or developmental as teachers may jump from one type to the next and back again (Sparkes-

Langer *et al*., 1990: 30). There may be a number of reasons for this in the current study such as the subject content of the lesson and the methodology chosen to teach it. The teachers were constantly testing themselves with new content, teaching techniques and materials. They were engaged in frequent cycles of problem solving and problem setting from one sequence to the next which could have led their reflection to spiral through different types within the sequences. These were not necessarily problems that they routinely faced in their language lessons, so they could not always rely on their experience as language teachers to help them. Davis (1995: 245) captures this process well:

> When confronted by non-routine problems, skilled practitioners learn to conduct frame experiments in which they impose coherence on messy situations, they come to new understandings of situations and new possibilities for action through a spiralling process of framing and reframing. Through the effects of a particular action, both intended and unintended, the situation "talks back". This conversation between the practitioner and setting provides the data which may then lead to new meanings, further reframing, and plans for future action.

Other reasons may be related to fatigue, amount of time or disposition towards written reflections during this phase, thus not exploiting this mode of reflection to further explore their thoughts on their teaching. Teachers may have felt that articulating their reflections orally during post-observation discussions was enough.

In the Post-phase there was evidence of all four types of reflection from each teacher though numbers varied, and the highest numbers in each case were for different types of reflection. For Teacher R, the highest number was Type 0, and the lowest is Type 3. For Teacher C, the highest number was Type 2 with Types 0 and 3 equally low in number. For Teacher CD the highest was also Type 2 though there were high numbers of Type 3. The lowest was for Type 0. This was almost the reverse as that for Teacher R. This could have had a lot to do with teachers' approach to the final written reflection seeing it either as a means to describe or summarise their experience rather than to analyse and interpret it in depth. There may have been a natural tendency to include Type 0 reflection in the final written report given that this type of writing warrants background description of context and events (Hatton and Smith, 1995). There was some repetition of what they had mentioned in other phases where this had been significant for them and became memorable. The way in which the final reflection was written may have a

lot to do with each teacher's individual style of writing or willingness to reflect. It has been noted that some teachers find writing a particularly arduous, time-consuming act, and sometimes do not reveal the true extent of their reflections (see Davis, 2006; Farrell, 2001). It is also pertinent to mention that none of the teachers wrote a reflective journal. They may have felt that their post-lesson written reflections were enough. All three teachers were capable of writing at length and had no problems with constructing academic or other types of written text.

In a final analysis of majority reflection types for each teacher in each phase (see Table 23), it can be seen that there was a sequential movement in all three cases from the Pre-phase to the Action-phase. Teachers C and CD moved from Type 0/1 to Type 2, and Teacher R from 0 to 1. From Action to Post phases there is a reversal of this movement for Teacher R, and a maintenance of position at Type 2 for Teachers C and CD. The general pattern for these two teachers was the same.

TEACHER	PRE-PHASE	ACTION PHASE	POST-PHASE
C	0/1	2	2
R	0	1	0
CD	0	2	2

Table 23. Majority reflection types per case per phase

From this, it is important to consider a number of factors which may have influenced these results. These are the number of CLIL lessons taught; modes of reflection; capacity to reflect; and inclination towards certain types.

The teachers each taught a different number of CLIL lessons thus gaining different amounts of experience of CLIL. However, experience was not synonymous with increased counts of dialogic/interpretative and critical/transformatory reflection. This was because their lesson sequences varied owing to the subject content so there was little opportunity for operations to be routinised. Teacher R who had more experience of CLIL-type lessons demonstrated more of a tendency to Types 0 and 1 reflection which may have been a consequence of her experience becoming more tacit. She may have felt less surprise as lesson aims were predictably more and more easily achieved.

It is possible to say that the modes of reflection may have influenced teachers' disposition towards reflecting. The written mode was used a lot and teachers may have found this an obligatory 'chore' rather than a personal tool to aid their reflection. Their written accounts may have fallen short of making explicit the true extent of their reflections. The fact that they wrote in English may have added difficulty to this. That said, in the Post Masters questionnaire sent by email to the teachers in 2013 (see Appendix 16), two of the teachers said that if they had written the reflections in Portuguese it would not have made much difference. One of these teachers, Teacher CD, said it would probably have been better expressed and would definitely have taken less time. The other teacher, Teacher C, said there would probably have been fewer mistakes in her writing which might also have been longer. Teacher R mentioned that her reflections would probably have been different saying that it would have been easier to write and state her point of view. This could go some way towards explaining her shorter reflections on her lessons as time went by, as well as her not analysing her teaching in more depth. In this questionnaire all teachers stated that their preferred form of reflecting was speaking in seminar discussions mentioning the benefits of sharing experiences and learning from the perspectives of others.

Given that each teacher engaged in all types of reflection at various points during the study, it is possible to assert that teachers were capable of all types of reflection. This is consistent with the findings of Dinkelman (2000) and contrary to those in other studies where there was a preponderance of lower levels equivalent to Type 0 and 1 (see for example, Hatton and Smith, 1995; MacLellan, 1999) though these studies are with pre-service subject teachers in native speaker teacher education contexts. Though the teachers in the current study were experienced language teachers, they were experimenting with a new educational approach which they themselves considered different from their regular practice. It could be argued that they were also novices in this respect. However, this argument can be countered by the fact that as experienced teachers they had more practical pedagogical knowledge than a novice would have which could have influenced how they reflected. It is also possible to state, albeit tentatively, that teachers may have been inclined towards certain types of reflection. For example, there were instances of Type 3 reflection in Teacher CD's accounts from the Pre-phase. However, idiosyncratic tendencies towards reflection types are difficult to prove especially in this study owing to the very influential contextual conditions. Lee

(2005) also noted that context had a significant impact on student-teachers' reflections. Where there were more constraints on practice (as in School CD) this may have been the reason for more high level analysis even early on in the project. Where there were fewer (as in School R) this may have influenced a tendency towards lower types since there were no obstacles to practice.

What can be asserted from these findings related to types of reflection is that action stimulates more and varied types of reflection. The closer to the action that reflection takes place, the more likely the details of that action are captured. Reflecting at a distance when action is completed, as in the Post-phase, does not lead to in-depth reflection on the finer details of teaching acts even when films of lessons are available for analysis. What it does do, is make teachers reflect on key memorable moments from their experience and articulate new understandings gained from this by positioning the teacher within a broader context of teaching and learning. Thought may be more detached, deliberative, and contemplative (Hatton and Smith, 1995: 34). Hence, there is proportionally more evidence of Type 3 reflection in the Post-phase. Instances of this type of reflection are, however, the lowest compared with other types. This is consistent with other studies already referred to in this section. This may be because where there were most reported instances of reflection (in the Action-phase), these were related to problematising classroom events, which though revealing of a higher level of analysis, did not always demonstrate a sense of more in-depth understanding of the contribution of practice to theory and teaching as a whole. Lee (2005: 700) argues that reflection is not just a matter of dealing with problems, but the "degree of awareness" surrounding the situation. It may be argued that reflection that is close to action, whether *in* action or *on* action, is less oriented to the critical type and more to the intuitive, on-the-spot decision-making to resolve issues as they arise and continue with the act of learning in the smoothest way possible (see Griffiths, 2000 and Thompson and Pascal, 2012 for a critique of Schön's reflection-in-action). Perhaps it is unfair to expect high numbers of this type of reflection given the demands of classroom teaching and the pressure on teachers to make what they plan work during lesson time (Dinkelman, 2000: 217; Ward and McCotter, 2004: 254).

Summary

In this chapter the findings of the study were presented and discussed. These relate to two dimensions of reflection – content and type of reflection revealed in the 'teachers' voices' which constituted the main evidence in this study which was supported by 'complementary evidence'. The teachers' reflections collected at the three phases, Pre-, Action, and Post-Action revealed a large number of sub-categories and themes for each of the eight deductive categories: context, understanding of CLIL, methodology, CLIL vs. ELT, ELT for young learners, learners, teacher competences, and personal and professional development. There was replication of sub-categories and themes across cases and over phases which allows these to be considered significant findings for a multiple case study. There were also others unique to individual cases which in themselves are interesting. The findings provide a great deal of information about these English language teachers' perceptions of teaching CLIL in their specific primary contexts.

The study also examined how teachers reflected on content. This was done through reflective practices which surfaced the teachers' perspectives from which it was possible to examine the types of reflection they were engaged in on the foci. The rubric tool consisting of four types of reflection: Type 0: Descriptive/behavioural; Type 1: Descriptive/analytical; Type 2: Dialogic/interpretative; Type 3: Critical/transformatory, was the instrument of analysis used for this purpose. Both dimensions of reflection are inextricably linked, with content influencing the type of reflection engaged in. Types and foci were also influenced by proximity to action. There was no linear progression of reflection from one type to another as time progressed. It is not possible to say that teachers moved through a hierarchy, along a continuum or through developmental stages should the rubric be interpreted in any of these ways. Reflection oscillated from one type to another brought about by a focus on separate foci or a fusion of one or more, and the distance from reflection to action. This highlights the complex nature of reflection and that it is not restricted to neat cycles, but likely consists of many spirals as foci, problems, ideas and solutions intersect. This goes hand-in-hand with the fact that teaching is itself, a complicated act.

What the study has done is surface the complexity of reflection and drawn attention to the importance of reflective practices in teacher education. The extent to which these findings fulfill the aims of the study and their implications for the English language teaching programme and beyond are discussed in the Conclusion of this thesis.

Conclusions

Introduction

In the final part of this thesis the main conclusions are presented. This is done within a summary of the findings which answered the three-part research question of the study. The implications of the findings for teacher education for English language teachers and CLIL are then considered. This is followed by a section which discusses the limitations of the study. To end, future lines of research emanating from the issues presented in this thesis are suggested.

This study has attempted to shed light on and develop an understanding of Content and Language Integrated Learning as taught by English language teachers in primary school contexts in Portugal, and of reflection and the reflective practices of teachers when experimenting with this educational approach. A better understanding of both may contribute to the development of the English language teacher education programme at FLUP. These constituted the main aims of the study.

The work presented in this thesis has acknowledged the main drivers of change in education, and the main characteristics of foreign language teacher education this century which are that it is inquiry-oriented and reflective. It has taken account of the new knowledge base which values the contribution of teachers' perspectives and the educational approach, CLIL, now firmly entrenched on a European agenda for developing multilingualism and incorporated into recommendations for foreign language teacher education in Europe (see Kelly *et al*., 2004).

We have learnt about CLIL from the perspectives of three experienced English language teachers brought about through reflective practices during the course of a teaching practicum. As a multiple case study, it was possible to conduct an in-depth analysis of teachers' perspectives and provide a rich description of the similarities and differences between the three cases, a major advantage of this method in qualitative research (Richards, 2003: 21; Stake, 2000; Cohen and Manion, 1994: 123). The teachers' 'voices' presented as evidence of content and types of reflection capture the reality and lived moments of their experience, and bring about the acclaimed "down-to-earth and attention-holding" (Stake, 2000: 19) characteristic of case studies mentioned in Chapter 3. The three teachers posed a challenge and also provided an opportunity to develop the teacher education programme at FLUP. The challenge was how the programme could

support their personal and professional development. The opportunity was the introduction of CLIL, a new educational approach for them. CLIL has been referred to as a "catalyst" for change in foreign language teaching and educational practices (Marsh and Frigols, 2007: 33). In this study, CLIL acted as a catalyst for developing reflective practice in the teacher education programme. This afforded the opportunity to close in on action and co-construct knowledge about CLIL through the teachers' perspectives of their practice. For the teachers, CLIL was different from their regular professional practice which provided the necessary tension to trigger reflection which brought about change in attitudes and practices. "Reflection", Loughran (2002: 33) says, is "a meaningful way of approaching learning about teaching so that a better understanding of teaching, and teaching about teaching, might develop". Reflecting on their CLIL experiences left an imprint of change on the teachers and the teacher education programme.

With the introduction of a new approach it was necessary to encourage reflection so that practice did not become a blind application of theory or unquestioned obligation to fulfill the requirements of Faculty. This is the prerogative of teacher education programmes whose goal is a commitment to life-long renewal of ideas and practices (Zeichner and Liston, 1996: 6; Nunan and Lamb, 1996: 122; Yost *et al*., 2000: 47; Jay and Johnson, 2002). Reflection is frequently described as a process which teachers should be constantly engaged in, preferably with others (Boud *et al.*, 1985: 36; Handal and Lauvås, 1987: 17). It is a process that involves bringing to the surface and making explicit personal theories about practice, and allowing them to be examined, questioned and viewed from other perspectives. This may lead to adjustments in practice which in turn may bring about change and improvements for oneself, other teachers and learners. Clarke (1995:243) reminds us of how important reflection is in this process, "The effect of professional development upon classroom teaching is governed by a number of factors, one being the ability of teachers to be reflective about their practice". It is the responsibility of those in teacher education to set this in motion and keep the momentum going. In this study it was done by operationalising reflection within a reflective model of teacher education which incorporated systematic reflection on CLIL using a variety of tools to stimulate spoken and written reflection.

This is the essence of the study which yielded the findings summarised below. These were bound by eight deductive categories of teachers' reflections: 'Context', 'Understanding of CLIL', 'Methodology', 'CLIL vs. ELT', ELT for young learners', 'Learners', 'Teacher competences', and 'Personal and professional development', and were analysed on two dimensions: content and types of reflection, to answer the research question: What are the perspectives of the teachers during their CLIL experience?

a) What do the teachers reflect on?
b) What types of reflection do they engage in?
c) Do the foci and types of reflection change over time?

1. Summary of findings

a) What do the teachers reflect on?

The teachers reflected on many issues within the eight categories over the three phases of the study (Pre-, Action- and Post-phase). This case study followed the path of one which "proliferates rather than narrows" with "more to pay attention to than less" (Stake, 2000: 24). In each deductive category significant issues were surfaced. These were organised into sub-categories which yielded a vast number of themes some of which were overlapping with other deductive categories. The majority of reflections were about 'methodology' and 'teacher competences' with the latter related mainly to technical features of supporting language and cognition as well as scaffolding strategies. The majority of reflections were noted in the Action-phase where there was most proximity to the practice of CLIL. Key findings and conclusions for the eight foci are summarised below. As there were many findings, those considered most pertinent and useful to language teachers and teacher educators for CLIL are mentioned.

Context

The school contexts in which the CLIL projects were undertaken were a determining factor in their success. Key to this was stakeholder support and the trust placed in the teachers. CLIL teachers had to deal with initial parental concerns and scepticism, commonly cited in the literature and noted in studies (see Baetens Beardsmore, 2002: 24; Mehisto *et al.*, 2008: 20; Massler, 2012) which lessened during the course of the year as the projects were seen to be working successfully. The generalist teachers with whom the CLIL teachers worked were important in providing support related to parents' concerns, guidance on subject content and concepts, and children's behaviour.

It has been noted that this type of collaboration is crucial in CLIL programmes (see Pavón and Ellison, 2013). However, this collaboration was not altogether symmetrical. The degree of control (or flexibility) exercised by the generalist teachers heavily influenced how the projects were operationalised with regard to the amount of CLIL that took place and when, and which areas could be covered. This brought about issues of ownership of content with generalist teachers claiming ground in their content territory. Another contextual restriction related to time. This was an important factor as where it was limited it curtailed language preparation in lessons as teachers felt they needed to prioritise the teaching of content. This was compounded by the non-obligatory attendance of English language lessons which meant that not all children had language preparation before CLIL lessons. This led one teacher to abandon this support on the grounds of fairness to all, and in another case, children being removed from the English language lessons by parents who felt that these lessons were not necessary owing to CLIL. The reverse effect was also noted as children began attending English language lessons because of the CLIL lessons which had renewed interest in the English language. Clearly these are particular to the Portuguese context where primary English language lessons are not compulsory, and to the experimental nature of the CLIL projects in the three schools. Contextual limitations brought about more hypothesising about ideal conditions for CLIL. Teachers lamented about the extra workload and 'cost' of CLIL, the former a common concern noted in new CLIL programmes (see Hunt *et al.*, 2009; Mehisto *et al.*, 2008: 22; Kiely, 2011: 165). By the end of the projects the teachers had developed a very good awareness of what is required to implement CLIL in a primary context and of the potential constraints to implementation. They felt that it raised their status because of the more serious academic content they were teaching, a consequence of which was the higher regard in which they were viewed by the school community. This, too, is likely due to the situation in Portugal where primary English language teachers are not permanent members of staff, visiting schools mainly at the end of the school day to teach a non-compulsory subject.

Understanding of CLIL

The teachers' initial understandings of CLIL were vague and a little confused, but became much clearer as a result of practice and sharing experiences with others. Understanding was initially expressed in simple definitions which, as the projects progressed, became more detailed and included scope and range of provision,

methodology, benefits for students, and appropriate conditions including who is best placed to teach it which they believed were language teachers on account of their range of techniques and strategies for promoting language learning. Teachers understood CLIL to be a unique educational approach, and of what may be considered CLIL and what may not (Coyle, 2006: 5). Broader understanding and clarity were gained through practice. However, despite demonstrating awareness of the principles of CLIL in practice, the teachers' accounts fell short of expressing this in theoretical terms as there was more focus on the practicalities of CLIL. They did not theorise their practice extensively during the Action-phase, so it would seem that the theory/practice divide is something that requires further attention and support so that teachers may extract meaning from experience and turn this into knowledge (Loughran, 2002).

Methodology

The teachers understood from the outset that they would need to adjust their regular ELT methodology to a focus on content, but they only understood the true extent of this during practice. It was clear to them that in CLIL the English language was not being taught as a subject, but used as a medium of instruction (Coyle, 2002: 27-28; Pavon and Rubio, 2010: 51). They had also anticipated that they would have to provide a more naturalistic learning environment for language to be acquired (Coonan, 2005). In practice, they understood the uniqueness of CLIL methodology particularly with regards to the 4Cs (content, communication, cognition, and culture) though they initially struggled with articulating aims when planning, and in practice, with the challenge of supporting learning. They were highly aware of their weaknesses which they attempted to overcome through trial and error. Priority areas of focus in their teaching were scaffolding strategies, balancing cognitive and linguistic demands in tasks and materials, and developing cognition. They also understood the need to support language development after initially focusing more on content, which underscores the idea of language sensitivity in CLIL (Wolff, 2005: 17). This supports the view that a focus on content needs to be counterbalanced with a focus on language so that students may effectively communicate their understanding of content (Coonan, 2003; Lyster, 2007). Cognition and scaffolding were persistent themes during Action and Post phases which highlights the teachers' consciousness and the importance they attached to them. The teachers incorporated group thinking tasks in their lessons which provided opportunities for communication. These were significant departures from their regular EFL lessons

and serve to emphasise the methodological shifts that teachers undergo in CLIL (Pavon and Ellison, 2013). CLIL methodology was very different to ELT methodology for these teachers and something which they worked hard at perfecting throughout their experience.

CLIL vs. ELT

The teachers drew distinctions between CLIL and ELT even before their practice of CLIL began. They maintained their stance throughout the phases of the study. This was that CLIL was more serious, challenging, meaningful, natural and useful than ELT, which by comparison was artificial, purely language-oriented, but fun. This hints at a dissatisfaction with English language teaching for young learners by those within the profession brought about by their CLIL experiences, and the realisation that more can be achieved in language lessons. Teachers mentioned the positive influence of CLIL on their language lessons particularly with regard to the inclusion of curricular content and activities which stimulated more higher order thinking. There was some confusion in early CLIL lessons whether they were indeed CLIL or language lessons because of their orientation to language as opposed to content. This led teachers to conclude that some content areas are more appropriate for CLIL than others. This is not only related to language but also the level of cognitive engagement. The perspectives of these teachers suggest that English language teaching and teachers have much to benefit from CLIL, but also a lack of awareness of the underlying influences on CLIL from ELT. This underlines the need for teacher education to emphasise the reciprocal relationship between the two approaches which may contribute to all-round best practice in both fields.

ELT for young learners

The teachers endorsed CLIL as an approach which could be used with young learners. This opinion was influenced by their learners' success during their CLIL projects and further manifested itself in reflections which revealed the extent to which it had influenced their practice of ELT. They could clearly see the added value of this approach for young learners which offered more opportunities for contextualised language acquisition and learning which went beyond just learning isolated items of vocabulary and playing games (Coonan, 2005; Massler, 2012). Implementation would, however, depend on legislation of English as a curricular subject, and the collaboration

between language and content teachers within school contexts, though a compromise solution would be to adopt a cross-curricular approach to language teaching.

Learners

Learner attitudes, needs and achievements featured prominently in teachers' reflections, particularly during the Action-phase where teachers were acutely concerned with supporting their students' learning. Learners became more of the focus and reason why teachers needed to adopt appropriate strategies to help them succeed especially where difficulties were encountered. Learner success was a source of great surprise and admiration that they were able to understand key concepts related to subject content and communicate that understanding using the English language. This is compatible with teachers' perspectives in the study of Hunt *et al*. (2009). Learner achievements and well-being were the main drivers of teachers' motivation and a measure of their success and competence in CLIL.

Teacher Competences

The study revealed a lot about how these three English language teachers felt they were coping with the teaching of content of the third year primary curriculum of Social Studies in the Portuguese context. We learned about their concerns, what advantages and disadvantages their English language teaching experience brought to the CLIL contexts, their needs, and their position regarding language in CLIL as opposed to language teaching in ELT. They made clear distinctions between ELT and CLIL lessons and were able to draw on CLIL methodology to improve their practice in ELT especially with regards to content, developing thinking skills and supporting learning using scaffolding strategies. They worked out their own needs through reflection on practice.

The teachers were highly conscious of their competences for CLIL even before the practice commenced where they expressed concerns about their ability to integrate both content and language in their lessons, their lack of content knowledge, and how they could support learners. These are common concerns mentioned in the literature (Pavon and Rubio, 2010). They became most aware of strengths and weaknesses in their competences during practice. They thought a lot about language though this was initially tacit and difficult to surface. Even though they were language teachers they

found planning for language *of, for* and *through* learning especially difficult. They were able to utilize their prior knowledge and experience as English language teachers in terms of recognising learner difficulties with language and language preparation, and general pedagogic knowledge. They were 'language sensitive' teachers. They demonstrated knowing-in-action, and the expertise of language teachers who can provide impromptu language support. This was also seen as a hindrance when they overly focused on language and language teaching strategies such as drilling for correct pronunciation. They wrestled with their language teacher expertise as they were conscious of the focus and importance of content in CLIL lessons. This made them make a conscious effort not to focus on language.

CLIL drew the teachers' attention to the need to improve their pedagogic skills such as providing clearer instructions, and giving students time to think. The experience helped them develop new competences with regard to methodology such as providing for more groupwork and learner participation, scaffolding techniques, and the use of technology. They developed an understanding of the complexity of some academic content for young learners. They learnt of the importance of balancing cognitive and linguistic demands from their mistakes when designing materials which were overly complex in their layout and the multiple demands made of students within single tasks. The teachers' consciousness of their strengths and weaknesses and developing potential as CLIL practitioners emphasises the important role of self-awareness brought about through reflection (Edge, 2007:9).

In the short space of time covered by this study, there were clear indications that the teachers were developing a range of competences in line with those mentioned in the CLIL Teacher's Competences Grid for "Underpinning CLIL" and "Setting CLIL in motion" (Bertaux *et al.,* 2009) and the "Professional Competences" of the European Framework for CLIL Teacher Education (Marsh *et al*., 2010).

Personal and Professional Development

The teachers' expressions of their development as a consequence of the CLIL experience were a mixture of emotions, new knowledge and understanding, self-improvement, and skills development which they said had influenced their practice. Their growth was not just restricted to technical skills but new understandings of the

importance of language, curricular content and cognition in lessons. They all agreed that CLIL should be part of professional development for language teachers because it had helped them become better teachers all-round. Experimenting with CLIL is evidently a good exercise for foreign language teachers as they benefit from a renewed understanding of pedagogic knowledge, the development of new skills which are transferable to language teaching contexts, and a consciousness of better practices in education. This underscores the importance of on-going professional development and the sense of awareness, commitment and responsibility which it fosters in teachers (Richards and Farrell, 2005; Edge, 2007; Burns and Richards, 2009).

b) What types of reflection do teachers engage in?

Teachers engaged in a range of reflection types within and over the phases of the study (Pre-, Action- and Post-Action) which suggests that reflection does not adhere to a notion of developmental hierarchies or continua. Fewest instances of reflection were noted in the Pre-phase and most instances in the Action-phase. Higher proportional instances of types 1 and 2 were recorded in the Action-phase and higher numbers of Type 3 were noted in the Post-phase. The instances of types 1 and 2 in the Action-phase relate to the process of framing problems and reframing them in order to provide solutions and problematise further action (Schön, 1983). Pragmatic solutions to problems which involve analysis and interpretation are what are needed in the heat of action. This suggests the necessity for certain types of reflection according to circumstances, and refutes the idea that some types may be more important than others (Noffke and Brennen, 1988; Zeichner and Liston, 1996). The evidence of Type 3 reflection, particularly in the Post-phase, was in instances of global appreciations of CLIL. This was done at a distance from action and suggests that this may be necessary for the adoption of a more contemplative, critical and evaluative stance on action (Griffiths and Tann, 1992, cited in Zeichner and Liston, 1996: 47). This highlights the important factor of proximity of reflection to action in bringing about certain types of reflection and supports the argument that reflection is dependent on pedagogical circumstances rather than capacity to reflect (Collin *et al.*, 2013: 110).

There was a tendency to engage in types 2 and 3 reflection where problems arose, particularly related to contextual conditions noticed as early as the Pre-phase. Where

there is tension, reflection oscillates between types and spirals as multiple foci are considered. Where practice is successful and action becomes routinised through experience, there is less problematising and knowledge becomes increasingly more tacit. Higher instances of types 0 and 1 reflection are evidenced when this happens. Thus, it is important for teacher educators to tap into teachers' thoughts before the onset of expertise or knowledge-in-action to learn more about how this is formed.

c) Do the foci and types of reflection change over time?

The answer to this question has already been alluded to in the previous two sections. Foci and types of reflection do change over time, but there is no pattern to these changes. Many sub-categories and themes emerged during practice. Some sub-categories were persistent over the three phases, others emerged only in only one or two. Some sub-categories disappeared after one phase or only emerged in the last. Where foci provoked tension and concern, or were related to practical issues of teaching competence, they remained into the Post-phase as they became memorable instances of practice where knowledge and meaning were created. However, this may be by nature of the personal significance of certain sub-categories whereas others may have become an embedded part of teacher knowledge which was not surfaced.

In relation to the answers to questions b) and c) above, it is possible to draw the following list of conclusions:

- Types of reflection engaged in are related to:
  - pedagogical circumstances;
  - proximity to action;
  - foci;
  - the extent/degree of tension/problem.

- Action stimulates more and varied types of reflection.
- The closer to action, the more details may be revealed.
- Teachers do not move through types of reflection sequentially, in a linear way; they jump from one to the other and back again.

- Amount of experience is not synonymous with more dialogic/interpretative and critical/transformatory reflection. More experience is associated with descriptive/behavioural and descriptive/analytical reflection as action becomes more routine, and knowledge becomes tacit, less easily surfaced and articulated, and more difficult to problematise.
- Critical/transformatory reflection is the type least engaged in during teaching.
- Reflection involves a complex intersection of foci, problems, ideas and solutions which spiral rather than follow neat cycles.

It is important to consider the implications of the conclusions above in relation to teaching and teacher education practices.

2. Implications of findings

2.1. Implications for developing reflective practices

It is important to begin this section by addressing the ways in which these findings may contribute to the development of reflective practice within the English language teacher education programme at FLUP which was the third aim of the study. This will be accompanied by broader implications and recommendations for teacher education which incorporate reflection and reflective practices.

The study has confirmed the importance of reflective practice in the teacher education programme at FLUP and of experimentation with new educational approaches in bringing about and providing the necessary tension to make teachers reflect. None of the findings would have been revealed had there not been systematic reflection built into the teacher education programme. It is important that we learn more about what teachers go through, what they think and when, and whether these thoughts are transformed by their practice if we are to develop programmes for the next generation of teacher-learners. This has to be carefully operationalised using effective strategies and a range of tools which guide, support and surface reflection, and modes (written or spoken, individual or group) which cater for a range of preferences for reflecting. This was attempted during the study. It brought to light, in particular, the effectiveness of the films of teachers' lessons as a reflective tool with which they were able to recall, analyse and interpret events in their lessons, and improve features of their own teaching. The films of lessons not only provided a mirror image of their teaching, but also offered

new lenses for different perspectives to operate. While the written medium provided an opportunity for contemplation and deliberation on practice and future action, the spoken reflections provided for more interactive inquiry and details to be teased out by colleagues or the author. The constant writing down of reflections may lead it to be seen as a chore and possibly force shorter versions of events with fewer details. Opportunities for spoken reflections in seminars and individual tutorials, if organised well, help to counter this and allow for "processes of confrontation and reconstruction" to take place which may not emerge in individual written accounts (C. Day, 1993: 86). A compromise may be a reflective dialogue journal which encourages detail and sustains the momentum of reflection through feedback from another party. In the Post Masters Reflection questionnaire, all of the teachers stated that their preferred means of reflecting was speaking in group seminars where they could share ideas, receive advice and reassurance as well as gain new perspectives from others. They were conscious of the fact that they were involved in reflective practices which heightened their awareness of their planning and performance and the need to change practices for the benefit of their students.

Although there was evidence of Type 3 reflection across the phases of the study, this was sparse and is compatible with findings in other studies which denote equivalent types of reflection (see for example, Hatton and Smith, 1995; MacLellan, 1999; Ward and McCotter, 2004). Encouraging critical/transformatory reflection is important as it may help teachers to recognise changes in their practice, as well as encourage further action towards positive change. This may be done through procedures which involve teachers consciously thinking about reflection so they develop meta-cognitive skills and awareness of what is required to become reflective (Hatton and Smith, 1995: 37). This can involve teacher educators teaching about reflection and may incorporate tools or checklists which encourage a variety of types (see for example, Jay and Johnson's (2002) typology of reflective practices). It is believed that teachers may exhibit more critical reflection if supported with such scaffolding techniques (Hatton and Smith, 1995: 43; Ward and McCotter, 2004: 255) which encourage them to make assertions about their practice which "helps to rationalize it as the familiar is made unfamiliar" (Loughran, 2002: 39). This will help teachers reach the more detached, objective stance needed to examine the worth of their actions with regard to personal change and the broader effects of this on others (Richards and Lockhart, 1996: 2). Clearly this is a skill

which needs to be developed in teacher education. This could be done through discussions of case studies and critical incidents which provide opportunities to learn from the practices of others, which in turn contribute to narrowing the gap between theory and practice. From this they may then become responsible for their own choices of which aspects of their practice they would like to drawn on, which will help to turn "experience into learning" (Boud *et al.*, 1985). This may "reconcile the aim of developing particular areas of knowledge, skill and attitudes with the aim of encouraging autonomy and professional responsibility" (Calderhead and Gates, 1993: 3). Loughran (2002: 38) acknowledges the importance of this process, "The ability to recognize, develop and articulate a knowledge about practice is crucial as it gives a real purpose for, and value in, effective reflective practice; it is a powerful way of informing practice as it makes the tacit explicit, meaningful, and useful". This would also provide important evidence that reflection is taking place (Griffiths, 2000: 551) and opportunities to learn about improvements in teaching which it brings about (Akbari, 2006: 192).

The above said, care must be taken not to reduce reflection and reflective practices to a simple set of prescriptive procedures, techniques and tools which would ironically turn it into unthinking routine action, precisely what it aims to avoid (Valli, 1993: 19; Akbari, 2007: 201; Edwards and Thomas, 2010: 404; Galea, 2012: 249).

What the author has learnt about reflective practice from this study is summarised below and serves as a set of recommendations for the continued development of the teacher education programme at FLUP. Reflective practice could be enhanced by:

- incorporating a pedagogy for reflection which includes meta-teaching to develop awareness of what it is;
- providing opportunities for effective systematic reflection;
- utilising a variety of reflection modes and tools including films of teachers' lessons;
- providing opportunities for assertions to be made about practice.

2.2. Implications of findings about CLIL

The findings of the study support the claim of CLIL as a potential 'change agent' in educational practices albeit in relation to the three teachers in this study and the author whose attitudes and practices were changed as a consequence of the experience. They provide a strong case for including CLIL in foreign language teacher education programmes in institutions of higher education, which supports the rationale presented in the European Profile for Language Teacher Education – A Frame of Reference (Kelly *et al.*, 2004: 77), and more experimental ventures into this educational approach at grassroots level in primary schools in Portugal. Details of these implications are provided below.

Fulfilling broad educational goals

CLIL afforded the teachers in the study a more holistic view of learning which is not confined to specific disciplines. It helped them appreciate the worth of other subjects. It could be said that it encouraged them to have a more open mindset which may reduce "disjuncture" within and between curricula (Mehisto, 2008). CLIL demands a new type of didactics (de Bot, 2002: 32), one which addresses two knowledge bases (of content subject and language) and engages teachers from different curricular areas in collaboration to fulfill broad educational goals. Therefore, it is vitally important that, at the very least, this potential is brought to the attention of student-teachers and experienced teachers in pre- and in-service teacher education courses which may provide the impetus for carefully orchestrated small-scale implementation.

CLIL broadens teachers' methodological awareness. Experimenting with CLIL forced the teachers in the study to examine its unique methodology which incorporates the 4Cs (content, communication, cognition and culture) (Coyle *et al.*, 2009; Coyle *et al.*, 2010) as curriculum objectives as well as a conceptual framework for the planning and realisation of these as part of a "complex whole approach" (Wolff, 2002: 48). In addition, through CLIL they developed important competences related to supporting language and cognition, as well as techniques and strategies to encourage participation and facilitate communication in the additional language. The teachers also became highly aware of the role of language in learning, of the need to consider language *of, for* and *through* learning, which previously they had taken for granted, and of language across the curriculum (Bullock, 1975; Fillion, 1979). They also became more sensitive

to the broad learning capacities of students which single-subject learning does not always expose. Such a range of competences is not always fully addressed in foreign language teacher education programmes, though clearly they would benefit from such inclusion. This underscores an important realisation, that after engagement in CLIL or teacher education for CLIL, it is difficult to return to a monolithic view of foreign language teacher education as focused on the language as subject. In this sense, CLIL does indeed, and thankfully so, "threaten established ways of thinking" (Marsh *et al.*, 2005: 8).

Teaching foreign languages to young learners

Primary education is by nature integrationist with subject areas fusing into broad educational curricula, and where the responsibility of teachers is to educate the 'whole child', socially, physically, intellectually and emotionally. The early start to foreign language learning in many contexts, brought about by the need to pre-empt MT + 2 development, has been formulated on an ill-conceived notion of the 'bolt-on extra' with languages taught as isolated subjects at the end of the school day by visiting teachers, rather than one which embraces cohesion and integration in keeping with the principles of primary education. The consequences are often detrimental: negative attitudes to foreign languages and language teachers, low attendance, and poor quality provision, to name a few. Such policy embraces disjuncture. The findings of this study show that adopting a CLIL approach narrows the divide between teachers and curricula bringing about a more meaningful role for foreign languages and their teachers. As has been fully discussed in Chapter 2, it makes little sense to teach foreign languages to young learners by focusing on lexical items in a decontextualised way which is disconnected from the rest of the curriculum (Coonan, 2005; Snow *et al,* 1989). If contextual circumstances in schools dictate that CLIL may not operate fully, then its principles and approach may be effectively exercised in the foreign language classroom through cross-curricular/activity-based learning (Brewster, 2004; Vale and Feunteun, 1995). Teacher education programmes for primary English language teachers should include substantial components on child development, second language acquisition, primary education policy and curricula, and Content and Language Integrated Learning.

Shaping best practices in teaching foreign languages

We have learned from the three teachers that CLIL can help to shape better practices in ELT for young learners particularly with regard to developing cognition and choice of more interesting academic content. CLIL forces teachers to explore ways of facilitating language use and developing understanding of meaningful authentic content through cooperative learning. This can easily be applied to language teaching contexts if teachers' attention is brought to approaches that have been designed to foster this such as task based learning, and the role of teachers questions in developing thinking skills. Comparisons between CLIL and ELT which draw on similarities and differences in underlying principles, methods, techniques and position of language would provide reciprocal benefits to both approaches. The application of the 4Cs framework for planning EFL lessons would be one means of drawing attention to areas which may be developed in the language classroom.

Implications for CLIL teacher education

There are two issues which have arisen from this research that have implications for CLIL teacher education. The first is that we have learnt about how English language teachers go about teaching CLIL, the knowledge base they can draw on, their 'linguistic sensitivity' and skill in provision of impromptu language support, and their concerns and competences in planning and performance. This is useful information to CLIL programmes which prepare both types of teacher, content and language. It helps draw attention to the positive contribution of the language teacher to CLIL. That said, the study has shown that the language teacher has to employ their 'expertise' strategically in order to make way for the development of the other 'Cs'. This leads to the second issue, that language teachers also need to develop further competences in preparation for CLIL contexts. The CLIL teacher is, afterall, someone who should develop "multiple types of expertise" (Marsh *el al*., 2010: 5). As this study has revealed, these needs even relate to language awareness and use. Language teachers tend to have a good grasp of BICS and are aware that this is also the goal of their teaching. They do not, however, have the same awareness of CALP which is subject specific and incorporates language *of, for* and *through* learning. This was evidenced by the difficulty the three teachers of the study had in articulating aims for this. They also experienced difficulty in balancing language and cognition so as not to compromise the subject content when designing materials and tasks. Thus, while having a number of credits in

their favour, language teachers also need preparation for CLIL which focuses on both the technical side of classroom teaching as well as the principles on which the educational approach is founded, in particular the role of language. Understanding this is not a given for language teachers. This draws attention to the importance of theory in teacher education, and of reflection on practice, particularly where teachers are encouraged to articulate assertions which transform their 'practical theories' into meaningful experiences from which knowledge can be constructed, and which may be fed back into the knowledge base of teacher education (Handal and Lauvås, 1987; Akbari, 2007). Thus, 'training' and opportunities for personal and professional 'development' are essential features of CLIL teacher education. These are sentiments which resonate in comments from one of the teachers, "Honestly, I think that this Masters was good because of the CLIL lessons. As an experienced teacher I was very glad to learn something new and it was a challenge. CLIL helped me to be a better teacher, to learn more" (Teacher CD).

The teachers in this study also provided an important indication of what they felt was needed in terms of supporting teachers involved in CLIL in the teacher education programme. In relation to their own teacher education for CLIL at FLUP (see Questionnaire 5, Appendix 14, Question 1) they were very positive about all areas of input (majority 5 and 4 on a scale of 0 to 5 with 5 the most positive). In relation to how input into CLIL could be improved within the programme, they mentioned viewing CLIL in action through films of other teachers' lessons and more resources and materials for planning lessons. Also in this questionnaire is their advice to student-teachers of CLIL. This is: to be aware of and teach what is in the national programmes; prepare challenging 'thinking tasks'; use technology and realia; prepare the language the teacher will use in class so that they are sure students will understand; to have a good relationship with the school community; be well-prepared; and be aware of the options CLIL can offer. This advice, as well as the lesson plans and filmed lessons of these three teachers will be extremely useful to the teacher education programme and future in-service teacher development courses on CLIL. The teachers have themselves provided precisely what they suggested was needed to improve the programme (in answer to question 2 of this questionnaire).

Implementing CLIL at grassroots level in Portugal

In this study CLIL was operationalised in three different primary school contexts in Portugal. In all three schools the model of CLIL adopted was modular, though this varied in terms of amount, time allowed, and type of content. The teachers' reflections revealed constraints and limitations to implementation as well as what can facilitate success which are compatible with those frequently cited in the literature (Mehisto, 2008). These are largely in the hands of other stakeholders and legislation. However, regardless of the conditions offered in each context, CLIL did work largely successfully for both teachers and students, as was revealed in teachers' reflections and the formative and summative tests carried out. The school communities were aware of and appreciative of this success, and were in favour of the continuation of the projects. The study also provides an example of how practicums in foreign language teacher education at the primary level may be adapted to incorporate and operationalise CLIL (as outlined in Chapter 3). Not only does this appear to be beneficial to school communities and teachers, but it is also important in establishing what Darling-Hammond (2006: 302) refers to as a "mutual transformation agenda" allowing both Faculty and schools to benefit and develop from such experiments.

However, despite these tentative first steps and endorsement for CLIL, there still remain issues which need to be countered so as to provide for smoother implementation in schools which would satisfy criteria such as those laid down by Naves (2009) and Coyle *et al*. (2010). These relate mainly to attitudes of school communities, teacher education and support networks which incorporate the production and dissemination of materials within the national context. The AECs programme has done little to convince school communities and stakeholders of the worth of English in primary schools and of those in whose hands this responsibility lies. The current unstable position of English language teachers within this programme does not facilitate the implementation of CLIL in primary schools in Portugal because, as this study has revealed, schools are reluctant to carry out such experimentation with teachers with whom they have not been able to establish trusted relationships as they are not regular members of staff nor is their return to school guaranteed year on year. This suggests that implementation of CLIL which involves primary English language teachers playing a key role, is unlikely to be successfully instigated unless these teachers are involved in projects which can guarantee their commitment to particular schools, or legislation changes to facilitate

stability of teachers and sustainability of CLIL projects. Even then, stakeholders will still need to be convinced of the long-term benefits of CLIL in a context which thus far remains largely ignorant of the approach. That said, we may be encouraged by small-scale grassroots initiatives elsewhere which do work, particularly where there is the support of Faculty, school directors and teachers who are keen to innovate (see Hunt *et al*., 2009). As we have noted, putting CLIL into operation is challenging for teachers (Mehisto *et al*., 2008; Kiely, 2011). Teachers involved need to see and feel supported through, for example, the provision of timetables which allow them time to study, plan, search for or design their own materials and collaborate with each other, and crucially disseminate information about their practices through online networks or at conferences so that national communities of practice may be established.

In a recent report by the Portuguese National Council for Education (CNE: 2013)[26], CLIL is mentioned as the preferred model for integrating a better quality of English language teaching in primary schools in the country. The model would involve primary English language teachers and generalist teachers collaborating on curricular content which would be given through English by English language teachers. The report came to light in order to emphasise the need for Portugal to combat below average competency in English as revealed in the Eurydice survey of 2012, and to address the lack of cohesion within the AECs progammes for English in primary schools. As a result of this, the Council proposes that English language become curricular in primary schools and that English language teachers from other cycles of compulsory education receive appropriate training in order to teach English in primary schools. In addition, it suggests that pre-service teacher education programmes be adapted to incorporate a focus on teaching English in the first cycle. The findings of the study of this thesis may provide an important contribution to such future programmes.

Developments to teacher profiles

The teachers in this study recognised their CLIL experience as having contributed to their professional development. It was seen to raise their status in schools and

[26] Conselho Nacional de Educação (CNE). (2013). Relatório Técnico: Integração do ensino da língua inglesa no currículo do 1º ciclo do Ensino Básico. Available from: www.cnedu.pt/content/edicoes/estudos_e_relatorios/RelatorioTecnico_final.pdf

something that they can incorporate into their professional profiles. Increasingly in the literature there is mention of the English language becoming a basic commonplace skill (see Graddol, 2006; and Hillyard, 2011) owing to early provision in schools, and the need for those within the profession to adapt to current demands for practices which are beyond mainstream foreign language teaching. Such are the cases for English for Academic Purposes (EAP) or English Medium Instruction (EMI) in tertiary education, English for Specific Purposes (ESP) in professional and vocational sectors, and CLIL in school settings. This also raises issues of teacher identity and how different experiences should expand rather than threaten this and "requires an initial security with our self-identity to have the confidence to continually recreate new identities in light of our experiences and reflections" (Hanson, 2011: 301). Reversing the frequent citation from the Bullock Report, Hillyard (2011: 2) declares that "all language teachers [have] to be content teachers" implying that content and language are inseparable and also forewarning the need for English language teachers to be prepared to teach the language for a variety of reasons and circumstances. The CLIL experiences have afforded the teachers an insight into this new realm as well as a vision of new possibilities for them.

3. Limitations of the study

During the initial design process of this study and the eventual procedures carried out, care was taken to ensure as much rigour as possible in order to establish the credibility of the research. This included determining specific boundaries of the study, the use of multiple data-gathering tools for the collection of primary evidence in both spoken and written modes, as well as complementary evidence across the three phases of the study. Three independent raters validated the rubric tool used for the analysis of types of reflection. Data were subjected to many rounds of analysis during the identification of sub-categories and themes for each teacher, and the determination of collective labelling for these. This is fully documented in Chapter 4 of this thesis. Despite the above, there are limitations to the study, some of which have already been alluded to in the discussion of the findings. As a case study, it is impossible to generalise from the results obtained. That said, the research is relatable (Bassey, 1981: 85 cited in Bell, 2005: 11) in the sense that other practitioner researchers may be able to appreciate certain aspects of the research or findings in some way or consider possibilities within their own contexts and act with caution should they consider implementing CLIL and/or reflective practices.

The author was a lone researcher during the study, as well as supervisor and seminar provider/teacher educator of the three teachers which made her proximity to each case inevitable. This was an unavoidable consequence of the research. Had more researchers been involved, this would have ensured more objectivity and increased validity of the use of the rubric. Even though this was validated by three independent raters using a sample of teachers' reflections, it cannot be totally immune from subjectivity as the author was solely responsible for analysing all other data. The number of cases (three teachers) was small. Had there been more teachers involved this may have provided more convincing results if replication across more cases was detected. The three school contexts brought a number of variables. The number of lesson sequences and lessons per sequence varied from teacher to teacher. This was a natural consequence of the context in which their projects were conducted. Little could have been done to prevent this. Had each teacher been given equal numbers of sequences and lessons (about the same content) this would have allowed for a more rigorous comparison of cases. The few language lessons observed meant that the author herself could not triangulate teachers' perspectives on the changes to their English language lessons brought about by the influence of CLIL. In addition, language and content entry and exit tests originally planned to be part of the research would have provided more accurate information about learners and their abilities as well as an indication of the effects of CLIL on their learning. That said, the amount of CLIL was probably not enough to bring about significant differences in this. It is also important to mention that the CLIL lessons conducted in each case did not hamper learning in any way. This was in part proven in the tests for Social Studies carried out in each school. Interviews with learners would have contributed further complementary evidence about their attitudes towards CLIL.

The fact that the three teachers, all of whom were Portuguese, were expected to reflect in the English language which is not their mother-tongue, may have restricted their reflections. In the Post Masters Reflection questionnaire, two of the teachers said it would not have made a difference except for fewer mistakes and less time taken to write. One teacher said it would probably have been easier to explain her point of view. This would be a major consideration in further research into teachers' reflections. The discontinuation of the MEIB degree soon after the study was completed meant that any immediate further investigation of a similar nature involving primary English language

teachers and CLIL could not be carried out. However, that does not prevent future lines of study from being suggested.

4. Future lines of study

The future lines of study presented below relate, though are by no means exclusive to, the Portuguese context. The study within this thesis involved experienced primary English language teachers experimenting with CLIL during a practicum. An interesting line of research would be to observe and study the perspectives of novice English language teachers undertaking similar experiments in primary contexts after the first year of a Masters degree in which they acquire "received" and "experiential knowledge" (Wallace, 1991: 14-15) about ELT and CLIL within a reflective model of teacher education as presented in section 5.2 of Chapter 3. It would be interesting to find out the extent to which novice teachers with no previous experience of English language teaching draw similarities and differences between ELT and CLIL, and how this is manifested in their actual lessons. Comparisons with more experienced English language teachers conducting similar practicums would reveal a number of interesting comparisons such as: the degree to which ELT experience is a help or hindrance; which aspects of the knowledge base each set of teachers draws upon in CLIL lessons; how tacit the former is in experienced teachers; how much 'transfer' or 'influence' there is between the two types of lesson; and whether there are any differences in the types of reflection each group of teachers engages in during experimentation with an educational approach that is new to all.

Continuing along the lines of comparative studies and drawing on one of the issues brought about during the study of the three teachers is that of the similar content areas of some English language lessons and CLIL lessons. Further study could examine the similarities and differences in teaching methods, strategies, and materials, for example, where the same content is taught in EFL and CLIL lessons with one or more of the following combinations: the same English language teacher(s) teaching the same content in CLIL lessons and in language lessons with different sets of students; different English language teachers teaching language lessons and CLIL lessons with the same content. A comparison of the initial lesson aims of these teachers coupled with observation of their lessons would draw attention to the degree of convergence or divergence with the practical reality of the educational approaches. Engaging teachers in

dialogue, and encouraging assertions to be made about practical theories could lead to a reformulation of best practice in the primary contexts of those teachers.

Studies of primary English language teachers teaching CLIL could easily lend themselves to further scrutiny of teaching strategies, for example those used to scaffold learning such as that initiated by the author with the development of the taxonomy of scaffolding strategies prior to and during this study (see Appendix 1). This could be further enhanced if teachers were involved in identifying such strategies themselves through the use of videos of their lessons and articulations of their reasons for this.

Within this study, the three primary English language teachers observed the generalist teachers teaching Social Studies in order to have an idea of teaching methods and strategies employed to teach content, and the degree of challenge for learners within lessons given in the mother-tongue. The CLIL teachers also commented on the language-oriented nature of a lot of the content of Social Studies. Generalist teachers were also asked if they would teach the lessons taught by the CLIL teachers any differently. Further lines of study could emanate from this in comparisons between the way primary generalist teachers and CLIL teachers teach the same content. Criteria for lesson observation could be adapted from the guidelines given to the CLIL teachers for their observation of generalist teachers (see Appendix 17). These could focus on, for example, the complexity of input (content concepts and language used to transmit these); degree of scaffolding of content; types of question asked (and the level of higher order thinking which is demanded); type and amount of focus on language (and language across the curriculum); and interaction patterns and the degree of collaborative learning. This would provide an indication of the degree of difference between content teaching in the mother-tongue and CLIL, and a better understanding of the extent of demand made on learners adapting to CLIL within these contexts. It may also lead to fruitful discussion, particularly if both types of teacher are involved in observing each other, and sharing and experimentation of strategies and techniques which could enhance teaching and learning in both types of lesson. Further research could involve both types of teacher using the 4Cs conceptual framework for planning lessons and an analysis of the extent to which their aims for the 4Cs differ. Which of the 4Cs would be easiest to articulate? Would content teachers struggle with articulating aims for their area in a similar way that the language teachers of the study found articulating language

of, for and through learning initially difficult as this may have become tacit knowledge? How would both types of teacher deal with cognition? These are just a couple of questions which such research could find answers to.

Another research angle related to content teachers and language teachers teaching CLIL in primary schools would be to compare their perspectives to see if their concerns, notions of their competences, and personal and professional development differ. Would content teachers learn more about content through teaching it through another language as the language teachers in this study learned more about language?

A further application of the 4Cs framework within a research context could be within English language teaching practicums in other cycles of education. It has already been suggested that this framework may help to enhance the quality of English language lessons. Engaging in research which involves two sets of student-teachers, one using the 4Cs framework to plan lessons, the other not, may help to establish if this hypothesis can be proven. Observation of lessons for practical evidence of the 4Cs as well as structured post-observation spoken and written reflections would provide help to support or refute this. A further cycle of research could involve the introduction of the 4Cs framework to the group of student-teachers who did not use it in order to see if it made a difference to their planning and performance in lessons.

The above suggestions for future lines of research focus largely on comparative studies of specific aspects of CLIL and ELT which in themselves may contribute to the evidence base of CLIL research. However, a growing criticism of this research base is that it is lacking in longitudinal studies which provide solid empirical evidence that CLIL is working for all concerned, especially teachers and students (see Perez-Canãdo, 2012; Cenoz *et al.*, 2014). This would be an eventual and logical step in the Portuguese context if further opportunities are afforded English language teachers to be involved in teaching CLIL in the primary context. This, however, is dependent on legislation and school contexts providing more stable positions for primary English language teachers so as to ensure more coherence within study boundaries. Such a study could account for a minimum of two academic years with fixed groups of teachers and students, and include equal numbers of control (non-CLIL) classes so as to compare results on achievement in both foreign language and content areas. This would include entry and

exit tests for both areas (as was originally planned for this study), as well as the collection of teachers' perspectives on the experience through a variety of means over time. A useful reference for this is the longitudinal study by Infante *et al.* (2008) of primary CLIL in the Italian context. Stakeholder views would also be highly relevant and useful for continuation and progress of the study.

Future lines of study in the area of reflective practice in foreign language teacher education relate to the recommendations made by the author with regard to further improvements to the teacher education programme at FLUP. These can be made regardless of whether CLIL is involved in a practicum or not. Two considerations are paramount here: the search for an effective means by which student-teachers may become more conscious of different types of reflection; and the effectiveness of different modes (spoken and written) and strategies/tools, in particular dialogue journals and critical incidents, in encouraging student-teachers to formulate objective assertions about their own practice which could stimulate more critical/transformatory (Type 3) reflection. The first consideration could involve the development of a rubric/tool which could be used by student-teachers, in a first instance, as guide to identifying types of reflection in vignettes about teaching, and then as a support when writing their own reflections or when engaging in dialogue with others about their own teaching. This follows the line taken by Jay and Johnson (2002) in the development of their Typology of Reflection consisting of three "dimensions of reflective thought: descriptive, comparative, and critical" which functioned as a framework for teaching pre-service teachers about reflective practice. The rubric/tool developed by the author may also be considered for adaptation for use by student-teachers as a matrix with attention being drawn to descriptor categories (discourse type; rationale; level of inquiry; orientation (position of self); views of teaching) for more focused analysis rather than global reflection types. The rubric of Ward and McCotter (2004) is used in a similar way. A comparative study could be carried out with groups of students who use a/the rubric and those who do not in order to test its efficacy.

The other consideration relates to modes and strategies/tools for stimulating conscious objective theorising through assertions which may bridge the gap between theory and practice. In the Post Masters Reflection questionnaire, all three teachers stated that their preferred mode of reflecting was through speaking in group seminars. It would be

interesting to conduct research into reflection modes (spoken and written) to compare the range and frequency of types per mode to see whether this is an influential factor. As neither dialogue journals nor critical incidents were used in the study, the author would like to experiment with these as reflective strategies/tools in bringing about assertions and reflection which brings about conscious change.

One final, but no less important line of future research would be to monitor the long-term effects of experiences with CLIL and reflective practices on teachers' attitudes and practice. An attempt was made to do this through the Post Masters reflection questionnaire, the initial stimulus having been provided by the work of Curtis (2005), though this was not part of the initial design of the study. Had it been so, more rigorous means of obtaining evidence could have been carried out such as observations of teaching and interviews and group discussions with the teachers. One of the goals of reflective practice in teacher education is to enable students to develop competences, skills and attitudes which whet their appetites for life-long learning and professional development. It is clear therefore, that post study research should be conducted to monitor this.

In light of the findings in this study, it is clear that theoretical and practical knowledge of CLIL is of great benefit to foreign language teacher education programmes, the outcomes of which may support new policy development with regard to teaching English in primary schools in Portugal and encourage teachers to experiment with different educational approaches. This study has brought about "new understandings and appreciations" (Boud *et al.*, 1985: 19) of Content and Language Integrated Learning and reflective practices for the author. It has highlighted the importance of the case study in enabling the detail of these to be exposed in "contextualised portraits" of teachers' professional practice (Crandall, 2000: 40). It is to be viewed not as the end, but part of a continual cycle of reflection on action which aims to bring about positive change for those involved.

References

Akbari, R. (2007). Reflections on reflection: A critical appraisal of reflective practices in L2 teacher education. *System*, **35**, 192-207.

Anderson, L.W. and Krathwohl, D.R. (eds.) (2001*). A Taxonomy for Learning, Teaching, and Assessing: A revision of Bloom's Taxonomy of Educational Objectives.* New York: Longman.

Arnold, W., Joseph, N., Mol, H. and Mitchell-Schuitevoeder. R. (eds.) (2006). *Young Learners and the Content and Language CLIL Contiuum.* Canterbury: IATEFL YL SIG. Available from:
<http://www.countryschool.com/ylsig/members/documents/CLILpublication2.pdf >
[Accessed: 28 January 2010].

Arthur, J. and Cremin, T. (2010). *Learning to teach in primary school.* Abingdon: Routledge.

Asikainen, T., Bertaux, P., Frigols, M. J., Hughes, S., Marsh, D. and Mehisto, P. (2010). *Talking the Future 2010 – 2020: CCN Foresight Think Tank Report. Languages in Education.* Jyväskalä: University of Jyväskylä.

Ax, J., Ponte, P. and Brouwer, N. (2008). Action research in initial teacher education: an explorative study. *Educational Action Research*, **16** (1), 55-72.

Baetens Beardsmore, H. (2002). The significance of CLIL/EMILE. *In* Marsh, D. (ed.) *CLIL/EMILE The European Dimension*: *Action, Trends and Foresight Potential*. Brussels: European Commission, 24-26.

Bailey, K.M. (1990). The use of diary studies in teacher education programmes. *In* Richards, J.C. and Nunan, D. (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press, 215-226.

Bailey, K.M. (2006). *Language Teacher Supervision: A Case-Based Approach*. Cambridge: Cambridge University Press.

Bailey, K.M. (2009). Language Teacher Supervision. *In* Burns, A. and Richards, J. C. (eds.) *The Cambridge Guide to Second Language Teacher Education.* Cambridge: Cambridge University Press, 269-278.

Bailey, K.M., Curtis, A. and Nunan, D. (2001). *Pursuing Professional Development: The Self as Source.* Massachusetts: Heinle & Heinle.

Bailey, K.M., Long, M.H. and Peck, S. (eds.) (1983). *Second Language Acquisition Studies.* Massachusetts: Newbury House.

Bartlett, L. (1990). Teacher development through reflective teaching. *In* Richards, J.C. and Nunan, D. (1990). (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press, 202-214.

Bell, J. (2008). *Doing your Research Project: A guide for first-time researchers in education, health and social science.* 4th Edition. Maidenhead: Open University Press.

Bentley, K. (2010). *The TKT Course: CLIL Module*. Cambridge: Cambridge University Press.

Bento, C., Coelho, R., Joseph, N. and Mourão, S. (2005) *Ensino do Inglês 1º Ciclo do Ensino Básico Orientações Programática 3º e 4º ano: Materiais para o Ensino e a Aprendizagem*. Ministério da Educação Portuguesa.

Bertaux, P., Coonan, C.M., Frigols-Martin, M. J. and Mehisto, P. (2009). The CLIL Teacher's Competences Grid. Available from: <http://www.ccn-clil.eu/index.php?name=Content&nodeIDX=3857 > [Accessed: 20 May 2010].

Bizarro, R. and Moreira, M.A. (org.) (2010). *Supervisão Pedagógica e Educação em Línguas* Mangualde: Pedago.

Bloom, B. S. (ed.) (1956). *Taxonomy of Educational Objectives, Handbook I: Cognitive Domain.* New York: Longman.

Bonnet, A. (2012). Towards an evidence base for CLIL: How to integrate qualitative and quantitative as well as process, product and participant perspectives in CLIL research. *International CLIL Research Journal*, **1** (4), 66-78. Available from: <www.icrj.eu/14/article7.html> [Accessed: 9 July 2013].

Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, **36**, 81-109.

Borg, S. (2009). Language Teacher Cognition. *In* Burns, A. and Richards, J.C. (eds.) *The Cambridge Guide to Second Language Teacher Education.* Cambridge: Cambridge University Press, 163-171.

Boud, D., Keogh, R. and Walker, D. (eds.) (1985). *Reflection: Turning Experience into Learning*. London: Kogan Page.

Brinton, D.M., Snow, M.A. and Wesche, M.B. (1989). *Content-Based Second Language Instruction*. New York: Newbury House.

Brewster, J. (2004). Content-based language teaching: a way to keep students motivated and challenged? *CATS: The IATEFL Young Learners SIG Publication*. Available from: <http://www.countryschool.com/ylsig/members/articles/CATS-04-2.pdf> [Accessed: 28 January 2010].

Brewster, J. (2006). 'Is the nine-times table magic?': opportunities and constraints in using investigations to promote content-based teaching. *In* Arnold, W., Joseph, N., Mol, H. and Mitchell-Schuitevoeder. R. (eds.) *Young Learners and the Content and Language CLIL Contiuum.* Canterbury: IATEFL YL SIG. Available from: <http://www.countryschool.com/ylsig/members/documents/CLILpublication2.pdf> [Accessed: 28 January 2010].

Brown, H.D. (2000). *Principles of Language Learning and Teaching*. New York: Longman.

Bruton, A. (2011). Is CLIL so beneficial, or just selective? Re-evaluating some of the research. *System*, **39**, 523-532.

Bullock, A. (1975). *A Language for Life: Report of the Committee of English appointed by the Secretary of State for Education and Science*: London: HMSO.

Burns, A. (1999). *Collaborative Action Research for English Language Teachers.* Cambridge: Cambridge University Press.

Burns, A. and Richards, J.C. (eds.) (2009). *The Cambridge Guide to Second Language Teacher Education.* Cambridge: Cambridge University Press.

Burton, J. (2009). Reflective Practice. *In* Burns, A. and Richards, J.C. (eds.) *The Cambridge Guide to Second Language Teacher Education.* Cambridge: Cambridge University Press, 289-307.

Calderhead, J. and Gates, P. (eds.) (1993). *Conceptualizing Reflection in Teacher Development*. London: Falmer Press.

Cameron, L. (2001). *Teaching Languages to Young Learners*. Cambridge: Cambridge University Press.

Carter, R. and Nunan, D. (eds.) (2001). *The Cambridge Guide to Teaching English to Speakers of Other Languages.* Cambridge: Cambridge University Press.

Cenoz, J., Genesse, F. and Gorter, D. (2014). Critical Analysis of CLIL: Taking stock and looking forward. *Applied Linguistics*, **35** (3), 243-262.

Chamoso, J.M., Cáceres, M.J. and Azcárate, P. (2012). Reflection on the teaching-learning process in the initial training of teachers: Characterization of the issues on which pre-service mathematics teachers reflect. *Teaching and Teacher Education*, **28**, 154-164.

Childs, M.R. and Bostwick, R.M. (eds.) (1998). *Learning through two languages: Research and practice.* Second Katoh Gakuen International Symposium on Immersion and Bilingual Education.

Clarke, A. (1995). Professional Development in Practicum Settings: Reflective Practice Under Scrutiny. *Teaching and Teacher Education*, **11** (3), 243-261.

Clegg, J. (2006). Education in English as a second language: a world of practices. *In* Arnold, W., Joseph, N., Mol. H. and Mitchell-Schuitevoeder. R. (eds.) *Young Learners and the Content and Language CLIL Contiuum.* Canterbury: IATEFL YL SIG. Available from: <http://www.countryschool.com/ylsig/members/documents/CLILpublication2.pdf> [Accessed: 28 January 2010].

Cohen, L. and Manion, L. (1980). *Research Methods in Education: Fourth Edition*. Routledge: London.

Collin, S., Karsenti, T. and Komis, V. (2013). Reflective practice in initial teacher training: critiques and perspectives. *Reflective Practice*, **14** (1), 104-117.

Conselho Nacional de Educação. (2013). Relatório Técnico: Integração de ensino da língua inglesa no currículo do 1º ciclo do Ensino Básico. Available from: <www.cnedu.pt/content/edicoes/estudos_e_relatorios/RelatorioTecnico_final.pdf> [Accessed: 10 January 2014].

Coonan, C.M. (2003). Some issues in implementing CLIL. *ELC Information Bulletin.* Available from: <http://userpage.fu-berlin.de/~elc/bulletin/9/en/coonan.html> [Accessed 1 May 2012].

Coonan, C.M. (2005). The natural learning of a foreign language. CLIL as a possible partial solution for the primary school. *Scuola e Lingue Moderne*, 4-5.

Coonan, C.M. (2007). Insider Views of the CLIL Class through Teacher Self-Observation – Introspection. *International Journal of Bilingual Education and Bilingualism*, **10** (5), 625-646.

Cosh, J. (1999). Peer observation: a reflective model. *ELT Journal*, **53** (1), 22-27.

Council of Europe. (2001). *Common European Framework of Reference for Languages: Learning, teaching, assessment*. Available from: <www.coe.int/lang-CEFR>.

Council of Europe. (2005). 2661st Council Meeting *Education, Youth and Culture*. Press Release 9060/05. Brussels: Council of Europe.

Council of Europe. (2010). *Language and school subjects: Linguistic dimensions of knowledge building in school curricula.* Strasbourg: Council of Europe.

Coyle, D. (2002). Relevance of CLIL to the European Commission's language learning objectives. *In* Marsh, D. (ed.). *CLIL/EMILE The European Dimension*: *Action, Trends and Foresight Potential*. Brussels: European Commission, 27-28.

Coyle, D. (2006). Content and Language Integrated Learning: Motivating learners and teachers. *Scottish Languages Review*, **13**, 1-18.

Coyle, D. (2007). Content and Language Integrated Learning: Towards a connected research agenda for CLIL pedagogies. *International Journal of Bilingual Education and Bilingualism,* **10** (5), 543- 562.

Coyle, D. (2013). Listening to learners: an investigation into 'successful learning' across CLIL contexts. *International Journal of Bilingual Education and Bilingualism*, **16**, (3), 244-266.

Coyle, D., Holmes, B. and King, L. (2009). Towards an integrated curriculum – CLIL National Statement and Guidelines. England: The Languages Company on behalf of the Department for Children, Schools and Families. Available from: <http://www.languagescompany.com/images/stories/docs/news/clil_national_statement_and_guidelines.pdf> [Accessed: 16 June 2010].

Coyle, D., Hood, P. and Marsh, D. (2010). *CLIL: Content and Language Integrated Learning.* Cambridge: Cambridge University Press.

Crandall, J. (2000). Language Teacher Education. *Annual Review of Applied Linguistics*, **20**, 34-55.

Cravo, A., Bravo. C. and Duarte, E. (2013). *Metas Curriculares Ensino Básico: 2º e 3º Ciclo Inglês.* Ministerio de Educação de Portugal. Available from: <http://www.portugal.gov.pt/media/908532/Metas%20Curriculares%20Ingles.pdf> [Accessed 10 July 2013].

Cruickshank, D.R. (1987). *Reflective Teaching: The Preparation of Students of Teaching.* Reston, VA: Association of Teacher Educators.

Cullen, R. (1998). Teacher talk and the classroom context. *ELT Journal,* **52** (3), 179-187.

Cummins, J. (1979). Cognitive/academic language proficiency, linguistic interdependence, the optimum age question and some other matters. *Working Papers on Bilingualism*, **19**, 121-129.

Cummins, J. (1998). Immersion education for the Millenium: What we have learned from 30 years of research on second language immersion. *In* Childs, M.R. and Bostwick, R.M. (eds.) *Learning through two languages: Research and practice*. Second Katoh Gakuen International Symposium on Immersion and Bilingual Education, 34-47. Available from: CARLA: <www.carla.umn.edu/cobaltt/modules/strategies/immersion2000.html> [Accessed: 29 July 2010].

Cummins, J. (2000). Academic language learning, transformative pedagogy, and information technology: Towards a critical balance. *TESOL Quarterly*, **34** (4), 537- 548.

Curtis, A. (2005). The Impact of Teacher Knowledge Seminars: Unpacking Reflective Practice. *TESL-EJ*, **9** (2), 1-16. Available from: <www.tesl-ej.org/wordpress/issues/volume9/ej34/ej34a3/ > [Accessed: 22 March 2013].

Dale, L., van der Es, W., and Tanner, R. (2011). *CLIL Skills.* Leiden: European Platform.

Dalton-Puffer, C. (2008a). Outcomes and processes in Content and Language Integrated Learning (CLIL): current research from Europe. *In* Delanoy, W. and Volkmann, L. (eds.) *Future Perspectives for English Language Teaching*. Heidelberg: Carl Winter, 139-154.

Dalton-Puffer, C. (2008b). Communicative Competence in ELT and CLIL classrooms: same or different? *Views,* **17** (3), 14-21. Available from: <https://anglistik.univie.ac.at/fileadmin/user_upload/dep_anglist/weitere_Uploads/Views/views_special_17_3.pdf> [Accessed: 16 June 2010].

Dalton-Puffer, C. (2011). Content-and-language integrated learning: From practice to principles? *Annual Review of Applied Linguistics,* **31**, 182-204.

Dalton-Puffer, C., Llinares, Ana., Lorenzo, F. and Nikula, T. (2014). *"You Can Stand Under My Umbrella"*: Immersion, CLIL and Billingual Education: A Response to Cenoz, Genesse and Gorter (2013). *Applied Linguistics*, **35** (2), 212-218.

Dalton-Puffer, C., Nikula, T. and Smit, U. (eds.) (2010). *Language Use and Language Learning in CLIL Classrooms*. Amsterdam: John Benjamins.

Dalton-Puffer, C., Nikula, T. and Smit, U. (2010). Charting policies, premises and research on content and language integrated learning. *In* Dalton-Puffer, C., Nikula, T. and Smit, U. (eds.) (2010). *Language Use and Language Learning in CLIL Classrooms*. Amsterdam: John Benjamins, 1-19.

Darling-Hammond, L. (2006). Constructing 21st Century Teacher Education. *Journal of Teacher Education*, **57** (3), 300-314.

Darn, S. (2006). Content and Language Integrated Learning (CLIL): A European Overview. Available from: <www.files.eric.ed.gov/fulltext/ED490775.pdf> [Accessed: 27 October 2009].

Davis, E.A. (2006). Characterizing productive reflection among preservice elementary teachers: Seeing what matters. *Teaching and Teacher Education*, **22**, 281-301.

Day, C. (1993). Reflection: a necessary but not sufficient condition for professional development. *British Educational Research Journal*, **19** (1) 83-93.

Day, R. (1990). Teacher observation in second language teacher education. *In* Richards, J.C. and Nunan, D. (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press, 43-61.

Day, R. (1993). Models and the Knowledge Base of Second Language Teacher Education. *University of Hawai'i Working Papers in ESL*, **11** (2), 1-13.

de Bot, K. (2002). CLIL in the European Context. *In* Marsh, D. (ed.) *CLIL/EMILE The European Dimension*: *Action, Trends and Foresight Potential*. Brussels: European Commission, 29-30.

de Graaff, R., Koopman. J.G., Anikina. Y. and Westhoff. G. (2007). An Observation Tool for Effective L2 Pedagogy in Content and Language Integrated Learning. *The International Journal of Bilingual Education and Bilingualism*, **10** (5), 603 – 624.

Delanoy, W. and Volkmann, L. (2008). (eds.) *Future Perspectives for English Language Teaching*. Heidelberg: Carl Winter.
Denzin, N.K. and Lincoln, Y.S. (eds.) (1994). *Handbook of Qualitative Research*. Thousand Oakes, California: Sage.

Dewey, J. (1933). *How We Think*. New York: Dover Publications, Inc.

Dias, A. and Toste. V. (2006). *Ensino do Inglês 1º Ciclo do Ensino Básico Orientações Programáticas 1º e 2º ano.* Ministério da Educação Portuguesa.

Dillon, A. M. (2009). The CLIL Approach in Irish Primary Schools: A Multilingual Perspective. *In* Marsh, D., Mehisto, P., Wolff, D., Aliaga, R., Asikainen, T., Frigols-Martin, M. J., Hughes, S. and Langé, G. (eds.) *CLIL Practice: Perspectives from the Field.* University of Jyväskylä. Available from: <http://www.icpj.eu/?id=2> [Accessed: 14 November 2013].

Dinkelman, T. (2000). An inquiry into the development of critical reflection in secondary student teachers. *Teaching and Teacher Education*, **16**, 195-222.

Dobson, A., Murillo, M.D. and Johnstone. R. (2010). *Bilingual Education Project Spain: Evaluation Report.* Ministério de Educación de Españha and British Council, Spain.

Edge, J. (ed.) (2001). *Action Research: Case Studies in TESOL Practice*. Alexandria, VA: TESOL Inc.

Edge, J. (2007). *The Education of Language Teachers: introductions, an overview and some basic concepts.* Unpublished course unit resource for EDUC 7013 The Education of Language Teachers. Manchester: Manchester University.

Edge, J. (2011). *The Reflexive Teacher Educator in TESOL: Roots and Wings*. New York: Routledge.

Edge, J. and Richards, K. (eds.) (1993). *Teachers Develop Teachers Research*. Oxford: Heinemann International.

Edwards, G. and Thomas, G. (2010). Can reflective practice be taught? *Educational Studies*, **36** (4), 403-414.

Ellison, M. (2008). Making and Doing (In) English: Incorporating ELT into Best Primary Practice. *APPINEP Bulletin* **18**, 6-11.

Ellison, M. (2010a). (De)Constructing CLIL in the primary context: Primary practice revisited and reconsidered, *APPINEP Bulletin* **22**, 8-11.

Ellison, M. (2010b). Make them think! Using stories in the primary English language classroom to develop critical thinking. *E-Fabulations*, **7,** 21-31. Available from: <http://ler.letras.up.pt/uploads/ficheiros/8664.pdf> [Accessed: 2 March 2010].

Eröz-Tuğa, B. (2013). Reflective feedback sessions using video recordings. *ELT Journal*, **67** (2), 175-183.
ECML. (2001). *Proceedings of the third colloquy of the European Centre for Modern Languages: Living together in Europe in the 21st century: the challenge of plurilingual and multilingual communication and dialogue*. *Graz, 9-11 December 1998*. Strasbourg: Council of Europe. Available from: <http://www. archive.ecml.at/documents/actes98finaux.pdf>
[Accesssed: 4 January 2010].

European Commission. (1995). *White Paper on Education and Training. Teaching and Learning: Towards the Learning Society*. Brussels: European Commission.

European Commission. (2003). *Promoting Language Learning and Linguistic Diversity*. Brussels: European Commission.

European Commission. (2006a). *Key Competences for Lifelong Learning Framework*. Brussels: European Commission.

European Commission. (2006b). *Content and Language Integrated Learning (CLIL) at school in Europe.* Brussels: European Commission.

European Commission. (2006c*). The main pedagogical principles of teaching English to very young learners.* Brussels: European Commission.

European Commission. (2007*). Improving the quality of Teacher Education.* Brussels: European Commission.

European Commission. (2008*). Multilingualism: an asset for Europe and a shared commitment.* Brussels: European Commission.

European Commission. (2009a*). Study on the Contribution of Multilingualism to Creativity.* Brussels: European Commission.

European Commission. (2009b). Education and Training 2010: Three studies to support school policy development. Jyväskylä: University of Jyväskylä.

Eurydice. (2006). *Content and Language Integrated Learning (CLIL) at school in Europe*. Brussels: Eurydice.

Eurydice. (2012). *Key Data on Teaching Languages at School in Europe.* Brussels: Eurydice.

Faneslow, J.F. (1990). “Let’s see”: contrasting conversations about teaching. *In* Richards, J.C. and Nunan, D. (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press, 182-199.

Farrell, T.S.C. (2001). Tailoring Reflection to Individual Needs: a TESOL case study. *Journal of Education for Teaching*, **27** (1) 23-38.

Figel, J. (2006). Preface *In* Eurydice. *Content and Language Integrated Learning (CLIL) at school in Europe.* Brussels: European Commission, 3.

Fillion, B. (1979). Language Across the Curriculum: Examining the place of language in our schools. *McGill Journal of Education*, **14** (1), 47-60.

Fisher, R. (2010). Thinking Skills. *In* Arthur, J. and Cremin, T. (eds.) *Learning to teach in primary school.* Abingdon: Routledge, 374-387.

Fleetham. M. (2003). *How to create and develop a thinking classroom*. Nottingham: LDA.

Freeman, D. (2001). Second Language Teacher Education. *In* Carter, R. and Nunan, D. (eds.) (2001). *The Cambridge Guide to Teaching English to Speakers of Other Languages.* Cambridge: Cambridge University Press, 72-79.

Freeman, D. (2009). The Scope of Second Language Teacher Education. *In* Burns, A. and Richards, J. C. (eds.) (2009). *The Cambridge Guide to Second Language Teacher Education.* Cambridge: Cambridge University Press, 11-19.

Freeman, D. and Johnson, K.E. (1998). Reconceptualizing the Knowledge-Base of Language Teacher Education. *TESOL Quarterly*, **32** (3), 397 – 419.

Gaies, S. and Bowers, R. (1990). Clinical supervision of language teaching: the supervisor as trainer and educator. *In* Richards, J.C. and Nunan, D. (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press, 167-181.

Galea, S. (2012). Reflecting Reflective Practice. *Educational Philosophy and Theory*, **44** (3), 245-258.

Gamboa, F. and Lise, C. (2006). Science Activities for Very Young Learners of English: Lessons from Mexico. *In* Arnold, W., Joseph, N., Mol, H. and Mitchell-Schuitevoeder. R. (eds.) *Young Learners and the Content and Language CLIL Contiuum.* Canterbury: IATEFL YL SIG. Available from: <http://www.countryschool.com/ylsig/members/documents/CLILpublication2.pdf> [Accessed: 28 January 2010].

Garcia, O. (2009). *Bilingual Education in the 21st Century: A Global Perspective*. West Sussex: Wiley-Blackwell.

Gebhard, J.G., Gaitan, S. and Oprandy, R. (1990). Beyond prescription: the student teacher as investigator. *In* Richards, J.C. and Nunan, D. (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press, 16-25.

Genesse, F. (1994). Integrating language and content: Lessons from immersion. Available from: <http://www.carla.umn.edu/cobaltt/modules/principles/Genesee1994/genesee1994.pdf> [Accessed: 29 July 2010].

Gimenez, T. (1999). Reflective teaching and teacher education contributions from teacher training. *Linguagem & Ensino*, **2** (2), 129-143.

Glaser, B.G. and Strauss, A.L. (1967). *The Discovery of Grounded Theory: Strategies for qualitative research*. New York: Aldine de Gruyter.

Golombeck, P. (2009). Personal Practical Knowledge in L2 Teacher Education. *In* Burns, A. and Richards, J.C. (eds.) *The Cambridge Guide to Second Language Teacher Education.* Cambridge: Cambridge University Press, 155-162.

Gomm, R., Hammersley, M. and Foster, P. (eds.) (2000). *Case Study Method*. London: Sage.

Graddol, D. (2006). *English Next*. London: British Council.

Griffiths, V. (2000). The reflective dimension in teacher education. *International Journal of Educational Research,* **33**, 539-555.

Halliwell, S. (1992). *Teaching English in the Primary Classroom.* New York: Longman.

Hammond, J. (2001). *Scaffolding: Teaching and Learning in Language and Literacy Education*. Newtown: Primary English Teaching Association.

Hammond, J. and Gibbons, P. (2001). What is scaffolding? *In* Hammond, J. (ed.) *Scaffolding: Teaching and Learning in Language and Literacy Education*. Newtown: Primary English Teaching Association, 1-14. Available from: <www.files.eric.ed.gov/fulltext/ED456447.pdf> [Accessed: 19 January 2009].

Handal, G. and Lauvås, P. (1987). *Promoting Reflective Teaching: Supervision in Practice.* Milton Keynes: The Society for Research into Higher Education & Open University Press.

Hansen-Pauly, M.A., Bentner, G., Jovanovic, V., Zerbato, D., Llinares, A., Dafouz, E., Alonso, C.E., Comino, M.G., Nadal, A.C., Favilli, F., Dale, L., Robinson, P., Hofmannova, M. and Novotna, J. (2009). *Teacher Education for CLIL across Contexts: From Scaffolding Framework to Teacher Portfolio for Content and Language Integrated Learning.* A SOCRATES-COMENIUS 2.1 project. Directorate-General for Education and Culture. Available at: <http://clil.uni.lu> [Accessed: 22 January 2010]

Hanson, K. (2011). 'Reflect' – is this too much to ask? *Reflective Practice*, **12** (3), 293-304.

Harmer, J. (2012). *Essential Teacher Knowledge: Core Concepts in English Language Teaching.* Harlow: Pearson Education Limited.

Harrison, J.K., Lawson, T. and Wortley, A. (2005). Mentoring the beginning teacher: developing professional autonomy through critical reflection on practice. *Reflective Practice*, **6** (3), 419-441.

Hatton, N. and Smith, D. (1995). Reflection in Teacher Education: Towards definition and implementation. *Teaching and Teacher Education*, **11** (1), 33-49.
Head, K. and Taylor, P. (1997). *Readings in Teacher Development*. Oxford: Heinemann.

Hill, J.D. and Bjork, C.L. (2008). *Classroom Instruction that works with English Language Learners*. Alexandria: Association for Supervision and Curriculum Development.

Hillyard, S. (2011). First Steps in CLIL: Training the Teachers. *Latin American Journal of Content and Language Integrated Learning*, **4** (2), 1-12.

Ho, B. (1995). Using lesson plans as a means of reflection. *ELT Journal*, **49**, 66-70.

Holliday, A. (2002). *Doing and Writing Qualitative Research*. London: Sage.

Hunt, M., Neofitou, A., and Redford, J. (2009). Developing CLIL Training for Modern Languages Teacher Trainees. *In* Marsh, D., Mehisto, P., Wolff, D., Aliaga, R., Asikainen, T., Frigols-Martin, M.J., Hughes, S. and Langé, G. (eds.) *CLIL Practice: Perspectives from the Field.* University of Jyväskylä, 110-116. Available from: <http://www.icpj.eu/?id=14> [Accessed: 27 October 2009].

Hüttner, J., Dalton-Puffer, C. and Smit, U. (2013). The power of beliefs: lay theories and their influence on the implementation of CLIL programmes. *International Journal of Bilingual Education and Bilingualism*. **16** (3), 267-284.

Infante, D., Benvenuto, G. and Lastrucci, E. (2008). Integrating Content and Language at Primary School in Italy: Ongoing Experimental Research. *International CLIL Journal*, **1** (1), 74-82. Available from: <http://www.icrj.eu/index.php?vol=11&page=745>
[Accessed: 27 October 2009].

Infante, D., Benvenuto, G. and Lastrucci, E. (2009). The Effects of CLIL form the Perspective of Experienced Teachers. *In* Marsh, D., Mehisto, P., Wolff, D., Aliaga, R., Asikainen, T., Frigols-Martin, M.J., Hughes, S. and Langé, G. (eds.) *CLIL Practice: Perspectives from the Field.* University of Jyväskylä, 156-163. Available from: <http://www.icpj.eu/?id=20> [Accessed: 27 October 2009].

Ioannou-Georgiou, S. (2012). Reviewing the puzzle of CLIL. *ELT Journal,* **66** (4), 495-504.

Ioannou-Georgiou, S., and Pavlou, P. (eds.) (2011). *Guidelines for CLIL Implementation in Primary and Pre-primary Education*. Brussels: European Commission.

Jay, J.K. and Johnson, K.L. (2002). Capturing complexity: a typology of reflective practice for teacher education. *Teaching and Teacher Education,* **18**, 73-85.

Johnson, K.E. (2006). The sociocultural turn and its challenges for second language teacher education. *TESOL Quarterly,* **40** (1), 235-257.

Johnson, K.E. (2009). Trends in Second Language Teacher Education. *In* Burns, A. and Richards, J. C. (eds.) *The Cambridge Guide to Second Language Teacher Education.* Cambridge: Cambridge University Press, 20-29.

Kaplan, R.B. (ed.) (2002). *The Oxford Handbook of Applied Linguistics*. New York: Oxford University Press.

Kelly, M., Grenfell., M. Allan., R. Kriza., C. and McEvoy, W. (2004). *European Profile for Language Teacher Education – A Frame of Reference.* A Report to the European Commission Directorate General for Education and Culture. Brussels: European Commission.

Kember, D., Jones, A., Loke, A., McKay, J., Sinclair, K., Harrison, T.S.E., Webb, C., Wong, F., Wong, M. and Yeung, E. (1999). Determining the level of reflective thinking from students' written journals using a coding scheme based on the work of Mezirow. *International Journal of Lifelong Education*, **18** (1), 18-30.

Kemmis, S. (1985). Action research and the politics of reflection. *In* Boud, D., Keogh, R. and Walker, D. (eds.) *Reflection: Turning Experience into Learning*. London: Kogan Page, 139-162.

Kemmis, S. and McTaggart, R. (eds.) (1988). *The Action Research Planner*. Victoria: Deakin University Press.

Kiely, R. (2011). Understanding CLIL as an innovation. *Studies in Second Language Learning and Teaching,* **1** (1), 153-171. Available from: <http://www.ssllt.amu.edu.pl/images/stories/volume.1/SSLLT_11_153-171_Kiely.pdf> [Accessed: 1 May 2012].

Kiely, R. (2011). CLIL – History and Background. *In* Ioannou-Georgiou, S. and Pavlou, P. (eds.) *Guidelines for CLIL Implementation in Primary and Pre-primary Education*. Brussels: European Commission, 21-33.

Kincheloe, J.K. (1993). *Toward a Critical Politics of teaching Thinking: Mapping the Postmodern*. Connecticut: Bergin & Garvey.

King, L. (2009). Preface of Towards an integrated curriculum – CLIL national statement and guidelines. In Coyle, D., Holmes, B. and King, L. *Towards an integrated curriculum – CLIL National Statement and Guidelines*. England: The Languages Company on behalf of the Department for Children, Schools and Families. Available from: <http://www.languagescompany.com/images/stories/docs/news/clil_national_statement_and_guidelines.pdf > [Accessed: 16 June 2010].

Kolb, D.A. (1984). *Experiential Learning: Experience as the Source of Learning and Development.* New Jersey: Prentice Hall.

Korthagen, F. and Vasalos, A. (2005). Levels in reflection: core reflection as a means to enhance professional growth. *Teachers and Teaching: theory and practice*, **11** (1), 47-71.
Krashen. S. (1982). *Principles and Practice in Second Language Acquisition.* Oxford: Pergamon.

Krashen, S. (1989). *Language Acquisition and Language Education*. Hemel Hempstead: Prentice Hall.

Krashen, S. and Terrell. (1983). *The Natural Approach: Language Acquisition in the Classroom.* Hayward, California: Alemany Press.

Kvale, S. (1996). *InterViews*: *An Introduction to Qualitative Research Interviewing*. London: Sage.

LaBoskey, V.K. (1993). A Conceptual Framework for Reflection in Preservice Teacher Education. *In* Calderhead, J. and Gates, P. (eds.) (1993). *Conceptualizing Reflection in Teacher Development.* London: Falmer Press, 23-38.

Lantolf, J.P. (2002). Sociocultural theory and second language acquisition. *In* Kaplan, R. B. (ed.) *The Oxford Handbook of Applied Linguistics*. New York: Oxford University Press, 104-114.

Larrivee, B. (2000). Transforming Teaching Practice: Becoming the critically reflective teacher. *Reflective Practice*, **1** (3), 293- 307.

Larsen-Freeman, D. and Long. M.H. (1991). *An Introduction to Second Language Acquisition Research*. UK: Longman.

Lasagabaster, D. (2008). Foreign language competence in content and language integrated courses. *The Open Applied Linguistics Journal*, **1**, 30- 41.

Lasagabaster, D. and Ruiz de Zarobe, Y. (eds.) (2010). *CLIL in Spain: Implemenation, Results and Teacher Training*. Newcastle upon Tyne: Cambridge Scholars Publishing.

Lasagabaster, D. and Sierra, J.M. (2009a). Language attitudes in CLIL and traditional ELF classes. *International CLIL Research Journal*, **1** (2), 4-17.

Lasagabaster, D. and Sierra, J.M. (2009b). Immersion and CLIL in English: more differences than similarities. *ELT Journal,* **64** (4), 367-375.

Lee, H.J. (2005). Understanding and assessing preservice teachers' reflective thinking. *Teachers and Teacher Education*, **21**, 699-715.

Lee, I. (2007). Preparing pre-service English teachers for reflective practice. *ELT Journal*, **61** (4), 321-329.

Lenneberg, E. (1967). *The Biological Foundations of Language*. New York: John Wiley.

Lightbown, P. and Spada, N. (1993). *How Languages are Learned*. Oxford: Oxford University Press.

Lorenzo, F. (2007). The sociolinguistics of CLIL: Language planning and language change in 21st century Europe. *Volumen Monográfico*, 27-38.

Lorenzo, F., Casal, S. and Moore, P. (2010). The Effects of Content and Language Integrated Learning in European Education: Key Findings from the Andalusian Bilingual Sections Evaluation Project. *Applied Linguistics*, **31** (3), 418-442.

Loughran, J.J. (2002). Effective reflective practice: In search of meaning in learning about teaching. *Journal of Teacher Education*, **53** (1), 33-43.

Lucietto, S. (2008). A Model for Quality CLIL Provision. *International CLIL Research Journal,* **1** (1), 83-92. Available from: <http://www.icrj.eu/11/article7.html> [Accessed: 27 October 2009].

Ludbrook, G. (2008a). CLIL: The potential of multilingual education. *Dos algarves*, **3** (17), 18-27. Available from: <http://dosalgarves.com/revistas/N17/3rev17.pdf> [Accessed: 2 January 2010].

Ludbrook, G. (2008b). Developing a performance test for Italian CLIL teacher certification: examining CLIL teacher language. *Studidi Glottodidattica,* **4**, 150-169. Available from: <http://www.unifg.it/sites/default/files/allegatiparagrafo/11-02-2014/ludbrook_test_for_italian_clil_teacher_certification.pdf> [Accessed: 28 January 2010].

Lyster, R. (2007). *Learning and teaching languages through content. A counter balanced approach*. Amsterdam: John Benjamins.

Maclellan, E. (1999). Reflective Commentaries: What do they say about learning? *Educational Action Research,* **7** (3), 433-449.

Marinova-Todd, S.H., Bradford-Marshall, D. and Snow, C. (2000). Three Misconceptions about Second Language Learning. *TESOL Quarterly*, **34** (1), 9-34.

Marsh, D. (1998). CLIL (Content and Language Integrated Learning) – A Framework for implementing plurilingual education originating from models of bilingual education. *In* ECML. *Proceedings of the third colloquy of the European Centre for Modern Languages: Living together in Europe in the 21st century: the challenge of plurilingual and multilingual communication and dialogue*. *Graz, 9-11 December 1998*. Strasbourg: Council of Europe, 51-57. Available from: <http://www.archive.ecml.at/documents/actes98finaux.pdf> [Accessed: 4 January 2010].

Marsh, D. (2000). Using languages to learn and learning to use languages. *In* Marsh, D., and Langé (eds.) *Using languages to learn and learning to use languages: An introduction to Content and Language Integrated Learning for parents and young people*. TIE-CLIL: University of Jyväskylä and Ministero della Pubblica Istruzione:

Milan. Available from: <www.tieclil.org/html/products/pdf/%201%20UK.pdf> [Accessed: 19 November 2009].

Marsh, D. (ed.) (2002). *CLIL/EMILE The European Dimension*: *Action, Trends and Foresight Potential*. Brussels: European Commission.

Marsh, D. (2003). The relevance and potential of content and language integrated learning (CLIL) for achieving MT + 2 in Europe. *ELC Information Bulletin 9*. Available from: <http://userpage.fu-berlin.de/~elc/bulletin/9/en/marsh.html> [Accessed 1 May 2012].

Marsh, D. (2006). English as a medium of instruction in the new global linguistic order: Global characteristics, local consequences. *In* Stewart, S.M., Olearski, J.E. and Thompson, D. (eds.) *Proceedings of the Second Annual Conference for Middle East Teachers of Science, Mathematics and Computing*. *METSMaC*: Abu Dhabi, 29-38. Available from: <http://archive.org/stream/ProceedingsOfTheSecondAnnualConferenceForMiddleEastTeachersOf/METSMaC-Proceedings-2006#page/n3/mode/2up> [Accessed: 19 November 2009].

Marsh, D. (2011). *Benefits of Bilingualism: Insights from the Field.* Cambridge: University of Cambridge International Examinations.

Marsh, D. (2013). *The CLIL Trajectory: Educational Innovation for the 21st Century iGeneration.* Córdoba: Servicio de Publicaciones.

Marsh, D., Coyle, D., Kitanova, S., Maljers, A., Wolff, D. and Zielonka, B. (2005). *Project D3 – CLILmatrix – Central workshop report*. Graz: European Centre for Modern Languages.

Marsh, D. and Frigols. M.J. (2007). CLIL as a catalyst for change in languages education. *Babylonia*, **3** (7), 33-37.

Marsh, D. and Langé (eds.) (2000). *Using languages to learn and learning to use languages: An introduction to Content and Language Integrated Learning for parents and young people*. TIE-CLIL: University of Jyväskylä and Ministero della Pubblica Istruzione: Milan. Available from: <www.tieclil.org/html/products/pdf/%201%20UK.pdf> [Accessed: 19 November 2009].

Marsh, D., Mehisto, P., Wolff, D. and Frigols, M.J. (2010). *The European Framework for CLIL Teacher Education.* Graz: European Centre for Modern Languages (ECML).

Marsh, D. and Meyer, O. (eds.) (2012). *Quality Interfaces: Examining Evidence and Exploring Solutions in CLIL.* Eichstaett: Eichstaett University Press.

Marsh, D., Nikula, T., Takala, S., Rohiola, U., and Koivisto, T. (1998) *Language teacher training and bilingual education in Finland. European Language Council National Report.* Available from: <

<http://www.celelc.org/projects/Past_Projects/TNP_Languages/TNP1_resources/SP6NatRepFI.pdf?1372922388> [Accessed: 28 January 2010].

Marsh, D., Pavón. P. and Frigols Martin, M.J. (2013). *The Higher Education Languages Landscape: Ensuring Quality in English Language Degree Programmes*. Valencia: Valencian International University. Available from: < <http://www.viu.es/download/universidad/publicaciones/ensuring-quality-english-degrees.pdf> [Accessed: 9 July 2013].

Martínez Agudo, J. (ed.) (2012). *Teaching and Learning English through Bilingual Education.* Newcastle upon Tyne: Cambridge Scolars Publishing.

Massler, U. (2011). Assessment in CLIL Learning. *In* Ioannou-Georgiou, S. and Pavlou, P. (eds.) *Guidelines for CLIL Implementation in Primary and Pre-primary Education*. Brussels: European Commission, 114-136.

Massler, U. (2012). Primary CLIL and its stakeholders: What children, parents and teachers think of the potential merits and pitfalls of CLIL modules in primary teaching. *International CLIL Research Journal*, **1** (4), 36-46. Available from: <http://www.icrj.eu/14/article4.html> [Accessed: 7 October 2013].

Massler, U., Ioannou-Georgiou, S. and Steiert, C. (2011). Effective CLIL Teaching Techniques. *In* Ioannou-Georgiou, S. and Pavlou, P. (eds.) *Guidelines for CLIL Implementation in Primary and Pre-primary Education*. Brussels: European Commission, 66-97.

Maurichi, M. (2006). CLIL in Sardinia: A Trainer Teacher's First Experience. *In* Arnold, W., Joseph, N., Mol, H. and Mitchell-Schuitevoeder. R. (eds.). *Young Learners and the Content and Language CLIL Contiuum.* Canterbury: IATEFL YL SIG. Available from: <http://www.countryschool.com/ylsig/members/documents/CLILpublication2.pdf> [Accessed: 28 January 2010].

McDonough, J. and McDonough, S. (1997). *Research Methods for English Language Teachers.* London: Arnold.

McMahon, S.I. (1994). Using Documented Written and Oral Dialogue to Understand and Challenge Preservice Teachers' Reflections. *Teaching and Teacher Education*, **13** (2), 199-213.

McNiff, J. (1988). *Action Research: Principles and Practice*. London: Routledge.

Mehisto, P. (2008). CLIL Counterweights: recognizing and Decreasing Disjuncture in CLIL. *International CLIL Research Journal*, **1** (1), 93-119. Available from: <www.icrj.eu/11/article8.html> [Accessed: 27 October 2009].

Mehisto, P. (2012). Criteria for producing CLIL learning material. *Encuentro*, **21**, 15-33.

Mehisto, P., Marsh, D. and Frigols, M.J. (2008). *Uncovering CLIL: Content and Language Integrated Learning in Bilingual and Multilingual Education*. Oxford: Macmillan.

Méndez, M. and Pavón, V. (2012). Investigating the coexistence of the mother tongue and the foreign language through teacher collaboration in CLIL contexts: perceptions and practice of the teachers involved in the plurilingual programme in Andalusia. *International Journal of Bilingual Education and Bilingualism,* **15** (5), 573- 592.

Met, M. (1999). *Content-based instruction: Defining terms, making decisions*. Available from: CoBaLTT <http://www.carla.umn.edu/cobaltt/modules/principles/decisions.pdf> [Accessed: 29 July 2010].

Meyer, O. (2010). *Towards quality-CLIL: successful planning and teaching strategies.* Available from: <www.ccn-clil.eu/index.php?name=Content&nodeIDX=3486> [Accessed: 13 April 2013].

Miles, M.B. and Huberman, A.M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook.* Second Edition. London: Sage.

Miller, J. and Glassner, B. (1997). The 'Inside' and the 'Outside': Finding Realities in Interviews. *In* Silverman, D. (ed.) *Qualitative Research: Theory, Method and Practice*. London: Sage, 99-129.

Mohan, B.A. (1990). LEP students and the integration of language and content: Knowledge structures and tasks. *In Proceedings of the Research Symposium on Limited English proficient students' issues. Washington DC, 10-12 September 1990*, 113-160. Available from: <www.files.eric.ed.gov/fulltext/ED341264.pdf> [Accessed: 25 January 2010].

Moon, J. (1999). *Reflection in Learning and Professional Development*. London: Kogan Page.

Moreira, A. (co-ord.) (1999). Actas do I Congresso Nacional de Supervisão. Aveiro: Congresso Nacional de Supervisão.

Moreira, M.A. (2001). *A investigação-acção na formação reflexiva do professor-estagiário de Inglês.* Lisboa: Instituto de Inovação Educacional.

Moreira, M.A. (2010). A supervisão pedagógica como espaço de tranformação pessoal e profissional na educação em línguas estrangeiras. *In* Bizarro, R. and Moreira, M. A. (org.) *Supervisão Pedagógica e Educação em Línguas.* Mangualde: Pedago, 109-128.

Muñoz, C. (2002). Relevance and potential of CLIL. *In* Marsh, D. (ed.) *CLIL/EMILE The European Dimension*: *Action, Trends and Foresight Potential*. Brussels: European Commission, 33-34.

Navés, T. (2009). Effective Content and Language Integrated Learning (CLIL) Programmes. *In* Ruiz de Zarobe, Y. (ed.) *Content and Language Integrated Learning:*

Evidence from research in Europe. Clevedon: Multilingual Matters, 22-41. Available from:<http://www.ub.edu/GRAL/Naves/Docs/Naves2008EffectiveCLILProgrammes.pdf> [Accessed: 4 April 2010].

Newby, D., Allan. R., Fenner. A.B., Jones, B., Komorowska. H. and Soghikyan. K. (2007). *European Portfolio for Student Teachers of Languages: A reflection tool for language teacher education*. Graz: European Centre for Modern Languages.

Nikolov, M. and Djigunovic, J.M. (2006). Recent Research on Age, Second Language Acquisition and Early Foreign Language Learning. *Annual Review of Applied Linguistics,* **26**, 234-260.

Noffke, S.E. and Brennan, M. (1988). *The Dimensions of Reflection: A Conceptual and Contextual Analysis*. Annual Meeting of the American Educational Research Association. New Orleans, 5-9 April 1988. Available from: < http://files.eric.ed.gov/fulltext/ED296968.pdf > [Accessed: 19 June 2013].

Norrish, J. and Pachler, N. (2003). Preparing language teachers – but how? The role of 'theory' in enabling reflection. *The Teacher Trainer*, **17** (1), 12-17.

Nunan, D. (1990). Action research in the language classroom. *In* Richards, J.C. and Nunan, D. (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press, 62-81.

Nunan, D. (1992). *Research Methods in Language Learning*. Cambridge: Cambridge University Press.

Nunan, D. and Lamb, C. (1996). *The Self-Directed Teacher: Managing the Learning Process*. Cambridge: Cambridge University Press.

Pachler, N. and Field. K. (2001). From mentor to co-tutor: reconceptualising secondary modern foreign languages initial teacher education. *Language Learning Journal*, **23**, 15-25.

Paiva, M., Barbosa, I. and Fernandes, S. (2006). Observação colaborativa, discurso supervisivo e reflexão escrita: três estudos de um caso de supervisão em estágio. *In* Vieira, F., Moreira, M.A., Barbosa, I., Paiva, M. and Fernandes, I.S. (eds.) *No Caleidoscópio da Supervisão: Imagens da Formação e da Pedagogia*. Mangualde: Edições Pedago, 77-108.

Pavesi, M. and Zecca, M. (2001). La lingua straniera come lingua veicolare: un'indagine sulle prime esperienze in Italia. *CILTA*, 1, 37 – 57.

Pavón, V. and Ellison, M. (2013). Examining teacher roles and competences in Content and Language Integrated Learning (CLIL). *Linguarum Arena*, **4**, 65-78.

Pavón, V. and Gaustad, M. (2013). Designing Bilingual Programmes for Higher Education in Spain: Organisational, Curricular and Methodological Decisions. *International CLIL Research Journal*, **2** (1) 82-94. Available from: < <http://www.icrj.eu/21/article7.html> [Accessed: 29 January 2014].

Pavón, V., Ávila, J., Gallego, A. and Espejo, R. (2014). Strategic and organisational considerations in planning content and language integrated learning: a study on the coordination between content and language teachers. *International Journal of Bilingual Education and Bilingualism,* Advance Access. DOI: 10.1080/13670050.2014.909774.

Pavón, V. and Rubio, F. (2010). Teachers' concerns and uncertainties about the introduction of CLIL programmes. *Porta Linguarum*, **14**, 45-58.

Pérez-Cañado, M.L. (2012). CLIL research in Europe: past, present, and future. *International Journal of Bilingual Education and Bilingualism,* **15** (3), 315-341.

Pinto, M. da G.L.C. (2013). O plurilinguismo: um trunfo? *Letras de Hoje, Porto Alegre*, **48** (3), 369-379.

Pistorio, M.I. (2010. A Blend of CLIL and Cooperative Learning Creates a Socially Constructed Learning Environment. *Latin American Journal of Content and Language Integrated Learning*, **3** (1), 1-10.

Ponte, P., Beijard, D. and Ax, J. (2004). Don't wait till the cows come home: action research and initial teacher education in three different countries. *Teachers and Teaching: theory and practice*. **10** (6), 591-621.

Porter, P.A., Goldstein, L.M., Leatherman, J. and Conrad, S. (1990). An ongoing dialogue: learning logs for teacher preparation. *In* Richards, J.C. and Nunan, D. (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press, 227-240.

Rampone, S. and Krigere, G. (2006). Content and Language Integrated Learning fro Young Learners – Comenius 1.1. Project. *In* Arnold, W., Joseph, N., Mol, H. and Mitchell-Schuitevoeder. R. (eds.) *Young Learners and the Content and Language CLIL Contiuum.* Canterbury: IATEFL YL SIG. Available from: <http://www.countryschool.com/ylsig/members/documents/CLILpublication2.pdf> [Accessed: 28 January 2010].

Randall, M. and Thornton, B. (2001). *Advising and Supporting Teachers.* Cambridge: Cambridge University Press.

Reason, P. and Bradbury, H. (eds.) (2008). *The Sage Handbook of Action research: Participative Inquiry and Practice.* Second Edition. London: Sage.

Reilly, T. (2006). The opposite end of the CLIL Continuum. *In* Arnold, W., Joseph, N., Mol. H. and Mitchell-Schuitevoeder. R. (eds.) *Young Learners and the Content and Language CLIL Contiuum.* Canterbury: IATEFL YL SIG. Available from: <http://www.countryschool.com/ylsig/members/documents/CLILpublication2.pdf> [Accessed: 28 January 2010].

Richards, J. (1987). The Dilemma of Teacher Education in TESOL. *TESOL Quarterly*, **21** (2), 209-226.

Richards, J.C. and Farrell, T. (2005). *Professional Development for Language Teachers*. Cambridge: Cambridge University Press.

Richards, J.C and Lockhart, C. (1996). *Reflective Teaching in Second Language Classrooms.* Cambridge: Cambridge University Press.

Richards, J.C. and Nunan, D. (1990). (eds.) *Second Language Teacher Education*. Cambridge: Cambridge University Press.

Richards, J.C. and Rodgers. T.S. (2001). Approaches *and Methods in Language Teaching*. Cambridge: Cambridge University Press.

Richards, K. (2003). *Qualitative Inquiry in TESOL.* Palgrave Macmillan: Basingstoke.

Roberts, J. (1998). *Language Teacher Education*. London: Arnold.

Ross, D.D. (1995). First Steps in Developing a Reflective Approach. Journal of *Teacher Education*, **40** (2), 22-30.

Rossner, R. and Bolitho, R. (eds.) (1990). *Currents of Change in English Language Teaching.* Oxford: Oxford University Press.

Ruiz de Zarobe, Y. (ed.) (2009) *Content and Language Integrated Learning: Evidence from research in Europe.* Clevedon: Multilingual Matters.

Ruiz de Zarobe, Y. (2013). CLIL implementation: from policy-makers to individual initiatives. *International Journal of Bilingualism and Bilingual Education*, **16** (3), 231-243.

Salaberri Ramiro, S. (2010). Teacher Training Programmes for CLIL in Andalusia. *In* Lasagabaster, D. and Ruiz de Zarobe, Y. (eds.) *CLIL in Spain: Implemenation, Results and Teacher Training*. Newcastle upon Tyne: Cambridge Scholars Publishing, 140-161.

Salaberri Ramiro, S. and Sánchez Pérez, M. (2012). CLIL Lesson Planning. *In* Martínez Agudo, J. (ed.) *Teaching and Learning English through Bilingual Education.* Newcastle upon Tyne: Cambridge Scolars Publishing, 111-148.

Salaberri Ramiro, S. and Sánchez Pérez, M. (2013). CLIL Lesson Planning in Primary Education: a case study. TESOL-SPAIN E-newsletter, **36** (1), 1-9. Available from: <www.tesol-spain.org/uploaded_files/files/CLIL%20Lesson%20Planning%20in%20Primary%20Education%20a%20case%20study.pdf > [Accessed: 10 January 2014].

Sasajima, S. (2013). How CLIL Can Impact on EFL Teachers' Mindsets about Teaching and Learning: An Exploratory Study on Teacher Cognition. *International CLIL Research Journal*, **2** (1), 55-66. Available from: < http://www.icrj.eu/21/article5.html> [Accessed: 29 January 2014].

Schön, D.A. (1983). *The Reflective Practitioner: How Professionals Think in Action.* USA: Basic Books.

Schön, D.A. (1987). *Educating the Reflective Practitioner.* San Francisco: John Wiley and Sons.

Scovel, T. (2000). A Critical Review of the Critical Period Research. *Annual Review of Applied Linguistics*, **20**, 213-223.

Seliger, H.W. and Shohamy, E. (1989). *Second Language Research Methods*. Oxford. Oxford University Press.

Serra, C. (2007). Assessing CLIL at primary school: A longitudinal study. *International Journal of Bilingual Education and Bilingualism*, **10** (5), 582-602.

Silverman, D. (ed.) (1997). *Qualitative Research: Theory, Method and Practice*. London: Sage.

Simões, A.R., Pinho, A.S., Costa, A.M. and Costa, A.R. (2013). The Project English Plus: a CLIL approach in a Portuguese school. *Indagatio Didactica*, 5 (4), 30-51.

Singleton, D. (2001). Age and Second Language Acquisition. *Annual Review of Applied Linguistics,* **21**, 77-89.

Snow, C. (1980). Age differences in second language acquisition: research findings and folk psychology. *In* Bailey, K.M., Long, M.H. and Peck, S. (eds.) *Second Language Acquisition Studies.* Massachusetts: Newbury House.

Snow, M.A., Met, M. and Genesse, F. (1989). A Conceptual Framework for the Integration of Language and Content in Second/Foreign Language Instruction. TESOL Quarterly, **23** (2), 201-217.

Soetaert, R. and Bonamie. B. (1999). *New rules for the language and content games: from CBLT/CALL to CLIL/TILL.* Available from: <http://www.cultureeducation.ugent.be/files/New_Rules_for_the_Language_and_Content_Game.PDF> [Accessed: 4 April 2010].

Sparkes-Langer, G.M., Simmons, J.M., Pasch, M., Colton, A. and Starko, A. (1990). Reflective Pedagogical Thinking: How can we promote it and measure it? *Journal of Teacher Education*, **41** (4), 23-32.

Stake, R.E. (2000). The Case Study Method in Social Inquiry. *In* Gomm, R., Hammersley, M. and Foster, P. (eds.). *Case Study Method.* London: Sage, 19-26.

Stewart, S.M., Olearski, J.E. and Thompson. D. (eds.) *Proceedings of the Second Annual Conference for Middle East Teachers of Science, Mathematics and Computing*. *METSMaC*: Abu Dhabi. Available from: <http://archive.org/stream/ProceedingsOfTheSecondAnnualConferenceForMiddleEastT

eachersOf/METSMaC-Proceedings-2006#page/n3/mode/2up> [Accessed: 19 November 2009].

Stoller, F. (2004). Content-based instruction: Perspectives on curriculum planning. *Annual Review of Applied Linguistics*, **24**, 261-283.

Strauss, A. and Corbin, J. (1994). Grounded Theory Methodology: An Overview. *In* Denzin, N. K. and Lincoln, Y. S. (eds.) *Handbook of Qualitative Research*. Thousand Oakes, California: Sage, 236-247.

Surbeck, E., Han, P.E. and Moyer, J.E. (1991). Assessing Reflective Journals. *Association for Supervision and Curriculum*, 25-27.

Takala, S. (2002). Positioning CLIL in the wider context. *In* Marsh, D. (ed.) *CLIL/EMILE The European Dimension*: *Action, Trends and Foresight Potential*. Brussels: European Commission, 37-39.

Tedick, D. (ed.) (2010). *Second Language Teacher Education: International Perspectives*. Mahwah, NJ: Lawrence Erlbaum Associates.

Thompson, N. and Pascal, J. (2012). Developing critically reflective practice. *Reflective Practice*, **13** (2), 311-325.

Thornbury, S. (1996). Teachers research teacher talk. *ELT Journal*. **50** (4), 279-289.

Thorsen, C.A. and DeVore, S. (2013). Analyzing reflection on/for action: A new approach. *Reflective Practice*, **14** (1), 88-103.

Ting, Y.L. (2010). CLIL appeals to how the brain likes its information. *International CLIL Research Journal*, **1** (3), 3-18.

Tripp, T.R. and Rich, P.J. (2012a). The influence of video analysis on the process of teacher change. *Teaching and teacher Education*, **28**, 728-739.

Tripp, T. R. and Rich, P. J. (2012b). Using video to analyse one's own teaching. *British Journal of Educational Technology*, **43** (4), 678-704.

University of Cambridge ESOL Examinations. (No date). *Teaching Knowledge Test (TKT) Content and Language Integrated Learning (CLIL) Handbook for Teachers.* Cambridge: University of Cambridge ESOL Examinations. Available from: <www.cambridgeenglish.org/images/tkt-clil-handbook.pdf>

Ur, P. (1996). *A Course in Language Teaching: Practice and Theory*. Cambridge: Cambridge University Press.

Urmeneta, C.E. (2013). Learning to become a CLIL teacher: teaching, reflection and professional development. *International Journal of Bilingual Education and Bilingualism,* **16** (3), 334-353.

Vale, D. and Feunteun, A. (1995). *Teaching Children English: A training course for teachers of English to children.* Cambridge: Cambridge University Press.

Valli, L. (ed.) (1992). *Reflective Teacher Education: cases and critiques*. New York: State University of New York Press.

Valli, L. (1993). Reflective Teacher Education Programmes: An Analysis of Case Studies. *In* Calderhead, J. and Gates, P. (eds.) *Conceptualizing Reflection in Teacher Development*. London: Falmer Press, 11-22.

Van de Craen, P. (No date). *Content and Language Integrated Learning: Culture of education and learning theories*. Available from: <http://www.unifg.it/sites/default/files/allegatiparagrafo/21-01-2014/van_de_craen_clil_culture_of_education_and_learning_theories.pdf > [Accessed: 20 October 2010].

Van Looy, L. and Goegebeur, W. (2007). Teachers and teacher trainees as classroom researchers: beyond Utopia? *Educational Action Research*. **15** (1), 107-126.

Van Manen, M. (1977). Linking Ways of Knowing with Ways of Being Practical. *Curriculum Inquiry*, **6** (3), 205-228.

Vélez-Rendón, G. (2002). Second Language Teacher Education: A Review of the Literature. *Foreign Language Annals,* **35** (4), 457-467.

Viebrock, B. (2012). "The Situation in the CLIL Classroom is quite different" – or is it? Teachers' Mindsets, methodological Competencies and Teaching Habits. *In* Marsh, D. and Meyer, O. (eds.) *Quality Interfaces: Examining Evidence and Exploring Solutions in CLIL.* Eichstaett: Eichstaett University Press, 78-90.

Vieira, F. and Marques, I. (2002). Supervising Reflective teacher Development Practices. *ELTED*, **6**, 1-18.

Vieira, F., Moreira, M.A., Barbosa, I., Paiva, M. and Fernandes, I.S. (eds.) (2006). *No Caleidoscópio da Supervisão: Imagens da Formação e da Pedagogia*. Mangualde: Edições Pedago.

Vieira, F. (2010). Formação em supervisão: (Re)produzir a pedagogia no espaço da possibilidade. *In* Bizarro, R. and Moreira, M. A. (org.) *Supervisão Pedagógica e Educação em Línguas* Mangualde: Pedago, 149-170.

Vygotsky, L.S. (1978). *Mind in Society: The Development of Higher Psychological Processes.* Massachusetts: Harvard University Press.

Wajnryb, R. (1992). *Classroom Observation Tasks.* Cambridge: Cambridge University Press.

Wallace, M.J. (1991). *Training Foreign Language Teachers: A reflective approach.* Cambridge: Cambridge University Press.

Wallace, M.J. (1998). *Action Research for Language Teachers.* Cambridge: Cambridge University Press.

Ward, J.R. and McCotter, S. (2004). Reflection as a visible outcome for preservice teachers. *Teaching and Teacher Education*, **20**, 243-257.

Wodlinger, M.G. (1999). The Development of Reflective Practice in Preservice Teacher Education: A Rationale and an Example. *In* Moreira, A. (co-ord.) (1999) *Actas do I Congresso Nacional de Supervisão,* 233-240.

Wolff, D. (2002). On the Importance of CLIL in the Context of the Debate on Plurilingual Education in the European Union. *In* Marsh, D. (ed.) *CLIL/EMILE The European Dimension*: *Action, Trends and Foresight Potential*. Brussels: European Commission, 47-48.

Wolff, D. (2005). Approaching CLIL. *In* Marsh, D., Coyle, D., Kitanova, S., Maljers, A., Wolff, D. and Zielonka, *B. Project D3 – CLILmatrix – Central workshop report.* Graz: European Centre for Modern Languages, 10-25.

Wolff, D. (2012). The European Framework for CLIL Teacher Education. *Synergies Italie,* **8**, 105-116.

Wright, T. (2010). Second Language Teacher Education: Review of Recent Research on Practice. *Language Teaching*, **43** (3), 259-296.

Yin, R.K. (1994). *Case Study Research: Design and Methods*. California: Sage.

Yost, D.S., Sentner, S.M. and Forlenza-Bailey, A. (2000). An Examination of the Construction of Critical Reflection: Implications for Teacher Education Programmes in the 21st Century. *Journal of Teacher Education*, **51** (1), 39-49.

Zeichner, K.M. and Gore, J.M. (1991). Action Research and Reflective Teaching in Preservice Teacher Education: A Case Study from the United States. *Teaching and Teacher Education,* **7** (2), 119-136.

Zeichner, K.M. and Liston, D.P. (1996). *Reflective Teaching: An Introduction*. New Jersey: Lawrence Erlbaum Associates.

Appendices

List of Appendices

Appendix 1. Taxonomy of scaffolding strategies for CLIL lessons…………………414
Appendix 2. Conceptual frameworks of reflection…………………………………...416
Appendix 3. Rubric: Types of reflection
(descriptors of four types of reflection 0-3)…………………………………………..420
Appendix 4. Supervisor observation grid for teaching young learners………………422
Appendix 5. Questions to guide post-lesson reflection………………………………423
Appendix 6. Research project agreement……………………………………………..424
Appendix 7. Article about CLIL given to parents by Teacher C at initial meeting…..425
Appendix 8. Sample of Teacher's R's long-term planning timetable…………………428
Appendix 9. Diagnostic test for English language competence………………………430
Appendix 10. Questionnaire 1. Pre-phase……………………………………………434
Appendix 11. Questionnaire 2. Pre-phase……………………………………………437
Appendix 12. Questionnaire 3. Action-phase………………………………………...440
Appendix 13. Questionnaire 4. Pre-final CLIL experience…………………………..444
Appendix 14. Questionnaire 5. Incorporating CLIL Pedagogy
in the Language Teacher Education Programme……………………………………..447
Appendix 15. Questionnaire 6. Teacher Perspectives and Profiles…………………..450
Appendix 16. Questionnaire 7. Post-Masters Reflection……………………………452
Appendix 17. Generalist teacher observation sheet…………………………………..453
Appendix 18. Example of CLIL lesson plan…………………………………………454
Appendix 19. Question frame for first interview with generalist teacher……………458
Appendix 20. Question frame for second interview with generalist teacher…………459
Appendix 21. Question frame for third interview with generalist teacher…………...460
Appendix 22. Processing and organising raw data for analysis
of sub-categories and types of reflection……………………………………………..461
Appendix 23. Collective sub-categories for Understanding CLIL…………………..462
Appendix 24. Example of sub-category organisation for one teacher
for Context………………………………………………………………….............464
Appendix 25. Coding longer sections of text………………………………………...465
Appendix 26. Sub-categories and themes for Context………………………………466
Appendix 27. Questionnaire for parents about the CLIL projects
(post-experience)……………………………………………………………………...468
Appendix 28. Generalists' final impressions of the projects…………………………469

Appendix 29. Sub-categories and themes for Methodology…………………………473
Appendix 30. CLIL lesson plan by Teacher R……………………………………….476
Appendix 31. CLIL lesson plan by Teacher CD……………………………………..481
Appendix 32. Sub-categories and themes for CLIL vs. ELT………………………...486
Appendix 33. Sub-categories and themes for ELT for young learners……………….489
Appendix 34. Sub-categories and themes for Learners………………………………490
Appendix 35. Sub-categories and themes for Teacher Competences………………...493
Appendix 36. Examples of tests incorporating CLIL………………………………...498
Appendix 37. Sub-categories and themes for Personal and
Professional Development…………………………………………………………….504
Appendix 38. Types of reflection in lesson sequences Teacher C……………………506
Appendix 39. Types of reflection in lesson sequences Teacher R……………………508
Appendix 40. Types of reflection in lesson sequences Teacher CD………………….509

Appendix 1. Taxonomy of scaffolding strategies for CLIL lessons

Scaffolding for CLIL Lessons

Planning
• aims for 4Cs (Content, communication, cognition, culture) • anticipates language demands : language for/of/through learning • builds on prior learning • anticipates learning demands: appropriate sequencing of tasks from lower to higher order thinking skills; linguistic and content demands balanced • considers a variety of interaction pattern
Materials
• makes appropriate choices for developmental level (content and language) • uses visuals, realia, technology, film to support learning • language is supported (e.g., simplified, key words highlighted/underlined) • cognition is supported (e.g., use of diagrams, pictures which show relationships between key ideas) • materials are balanced in terms of language demands and cognitive demands
Delivery of lesson
Teacher's language
• models language accurately and clearly with good pronunciation • demonstrates knowledge of subject-specific language • translanguaging – can decide when to use L1 effectively
Teacher talk: modifying language
• modifies delivery • lengthens sounds • stresses key words • uses repetition • modifies vocabulary (e.g., use of synonyms/antonyms) • organizes input (e.g., signals/use of discourse markers) • uses variety of questions to guide/develop understanding, support and check learning, promote thinking from lower order to higher order e.g., guided display/convergent questions; declarative with rising intonation; tag questions; referential
Communicative functions to support learning
• gives clear instructions • monitors and repairs • backtracks when problems are encountered • uses functional exponents appropriately for explaining, describing, emphasizing, exemplifying, comparing, paraphrasing, summarizing, consolidating –

demonstrating again, reminding, repeating, reviewing

- uses comprehension checks for students to demonstrate understanding of meaning and form
- uses variety of feedback techniques to check content message and language
- applies corrective strategies which support learning e.g., facial expression, questions, auto/peer correction
- praises students' efforts

Supporting content and cognition

- establishes 'route' for the lesson e.g., tells learners about the 'topic' at beginning of the lesson
- establishes patterns of input/systematic routine in presentation and feedback
- exposes students to input at a challenging level
- explains concepts and processes in ways appropriate to the level of the class, using simple language and familiar/concrete examples
- breaks complex information into smaller simpler parts and tasks into clear steps
- pauses to enable thinking time
- uses body language, visuals, diagrams, gestures, realia to support understanding
- provides demonstrations with accompanying language
- elicits/draws on prior knowledge/experience
- supports lower order and higher order thinking skills such as remembering, understanding, applying, analyzing, evaluating, creating
- provides opportunity to negotiate meaning
- provides opportunities for students to learn from and with each other

Supporting language/communication

- provides language of and for learning
- raises awareness of language form in speech and writing
- hints using initial letter or sound
- models key words in isolation and context
- echoes correct examples
- raises awareness of pronunciation and provides opportunities for practice e.g., in mini-drills
- encourages student's productive use of language in classwork, pair and groupwork
- provides written models of language (key words/structures) e.g., in substitution tables
- allows children to use L1 to communicate when their L2 productive language is limited.

Appendix 2. Conceptual frameworks of reflection

Study/author/year	Types/criteria/dimensions	Organisation of types
Van Manen 1977	Technical rationality Practical application-contextual Critical reflection-dialectical	Hierarchy/continuum
Kitchener 1977 & King 1977	Seven stages in the development of reflective judgement	Hierarchy
Noffke & Brennan 1988	Sensory dimension Ideals/idealogical dimension Historical – comparitive dimension Determinants dimension	Dimensions/planes/fields Multi-dimensional
Sparks-Langer *et al.* 1990	No descriptive language Simple, layperson description Events labelled with appropriate terms Explanation with tradition or personal preference given as rationale Explanation with principle or theory given as rationale Explanation with principle/theory and consideration of other factors Explanation with consideration of ethical, moral, political issues	Framework for reflective pedagogical thinking: seven types of language and thinking
Mezirow 1991	Non-reflective action: Habitual action Thoughtful action Introspection Reflective action: content, process, premise	

Zeichner & Gore 1991	Technical rationality Practical application-contextual Critical reflection-dialectical	Hierarchy (based on Van Manen)
Valli 1992	Behavioural Technical decision-making Reflection-in-action Deliberative (social efficiency, cognitive) Personalistic (developmental, narrative) Critical (social reconstructionist)	Levels, quality, content of reflection Hierarchy
LaBoskey 1993	Common sense thinkers Alert novices Pedagogical thinker	Contiuum
Hatton & Smith 1995	Technical Descriptive Dialogic Critical Contextualization of multiple viewpoints	Hierarchy: developmental sequence Rubric for analysis of written reflections: Descriptive information Descriptive reflection Dialogic reflection Critical reflection Reflection in action
Ross 1995	Low Moderate High	Hierarchy Criteria for assessing level of reflection Level of reflection by topic
Maclellan 1999	Technical Descriptive Dialogic Critical reflection	Hierarchy of types of reflection Content analysis on: Conceptualisations of the practice Implications of the practice Veracity of the practice
Kember *et al.* 1999	Habitual action Introspection/thoughtful action Content reflection/process reflection/content and process reflection/premise reflection	

Dinkelman 2000	Critical reflection – broadly defined Critically reflective teaching – broadly defined Critical reflection – strictly defined Critically reflective teaching – strictly defined Social studies rationales Democratic education	Key coding categories for analysis of teachers' reflections
Pachler & Field 2001	Technical Practical Critical or emancipatory Professional	Developmental sequence
Jay & Johnson 2002	Descriptive Comparative Critical	Typology of reflection: dimensions and guiding questions for student teachers Teaching reflection
Ward & McCotter 2004	Routine Technical Dialogic Transformative Precipitant type and level of reflection What and how	Three frames: cyclic nature (framing and reframing problems), issues over period of time or across a variety of situations; breadth of perspective (other viewpoints considered, moral questions); inquisitive stance (centred on questions, uncertainty expressed or not). Situated nature of reflection. Three dimensions: **focus, inquiry, change**
Korthagen & Vasalos 2005	Environment Behavior Competencies Beliefs Identity Mission	Core levels on which reflection takes place
Lee 2005	Recall level (R1) Rationalization level (R2) Reflectivity level (R3)	Depth of reflective thinking criteria

Chamoso *et al.* 2012	Generality Description Argumentation Contribution	Four levels of depth of reflection on: Teaching of content Learning of content Methodology
Thorsen & DeVore 2013		Developmental Continuum of Reflection on-/for-Action Rubric

Appendix 3. Rubric: types of reflection (descriptors of four types of reflection 0 - 3)

Descriptive/behavioural (0)	**Descriptive/analytical (1)** Elements of 0 plus:	**Dialogic/interpretative (2)** Elements of 1 plus:	**Critical/transformatory (3)** Elements of 2 plus:
Discourse type • Descriptive. Straightforward simple description (of content theme; of action: recalling events, procedure, operations)	**Discourse type** • Descriptive/low-level explanatory	**Discourse type** • Descriptive/explanatory/ interpretative	**Discourse type** • Descriptive/explanatory/ interpretative/critical
Rationale • No attempt to reason/ justify/explain terms/action • 'Action without thought'	**Rationale** • Description and explanation of content theme; action/practice includes attempts to justify it but in limited way • Limited thoughtful action	**Rationale** • Description and explanation of content theme; action/practice includes attempts to justify it in more in-depth way	**Rationale** • Description and explanation of content theme; action/practice is principled, critical, evaluative and includes multiple justifications and considerations of contextual factors
Level of inquiry • Does not question anything • Can answer '*how*' and *what'* questions in straightforward procedural terms	**Level of inquiry** • Low-level analysis (one –to-one correspondence) through: - Theory (absolute, unquestioned) which informs practice - Own beliefs/values/ experience • Can answer '*why'* questions in limited way • Problematises, but does not offer solutions • Questions, but does not attempt to answer/make suggestions	**Level of inquiry** • Higher level of analysis and interpretation • Can answer '*why'* questions in more depth • Evidence of own voice - Discourse/argumentation with self - Examines/questions own actions/decisions - Deliberation of ideas - Hypothesises - Suggests/explores alternatives - Offers solutions/advice	**Level of inquiry** • Reveals widening scope of thought and ability to problematise • Is open-minded to further change • Asks new questions/makes further suggestions about practice
Orientation (position of self) • Little/no indication of position	**Orientation (position of self)** • Self-oriented towards own teaching/competences • Identifies/acknowledges own strengths and weaknesses • Blames others/context or lack	**Orientation (position of self)** • Less concerned with self - understands effects of own practice on others • Recognises responsibility to others	**Orientation (position of self)** • Affirms and justifies new perspectives • Articulates new understandings and appreciations in in-depth

	of experience for lack of success • Expresses opinion in general terms • Acknowledges own learning in general terms • Reliant on own previous knowledge/viewpoint • Little/no indication of change in perspective brought about by new knowledge or practice	• Questions or attempts to reframe, re-articulate ideas/beliefs in light of new understandings of practice • Justifies/acknowledges strengths and weaknesses and how weaknesses can be overcome • Expresses opinion in specific terms • Acknowledges own learning in specific terms • Sees relationship between actions and theory. Practice influencing theory. • Initial theory-building/transformation • Appreciates multiple viewpoints • Reveals openness to change	way in relation to other factors beyond own practice. • Shows awareness of contribution of practice to theory • Sees potential/worth of new knowledge and actions beyond self to school community and elsewhere • Sees underlying influences on teaching beyond the observable (political, moral, ethical)
Views of Teaching • Teaching is seen in terms of operations, procedures, obligations which must be followed • Success is the fulfillment of procedures, obligations • Teachers have little/no control	**Views of Teaching** • Teaching is problematic • Teachers have little control/influence • Success in teaching is seen as the achievement of simple personal goals/institutional requirements	**Views of Teaching** • Teaching is problematic and complex, but success is achieveable • Teachers can influence change • Teaching involves 'mindful, committed action' • Success is seen in terms of learner achievement	**Views of Teaching** • Teaching is complex and depends on many factors within and beyond the control of the teacher • Teachers are responsible for their own development • Teachers have an important role in change • Success is wide-reaching

Appendix 4. Supervisor observation grid for teaching young learners

U.PORTO FACULDADE DE LETRAS DA **UNIVERSIDADE DO PORTO**

Student-teacher: ………………………………………………………………………….. School:
Supervisor: …………………………………………………………………………….. Date:

A. Planning & Preparation	Comments	VG	G	S	Poor
1. Specification of aims					
2. Overall coherence of procedures					
3. Range of activities					
4. Activities appropriate to Ss level					
5. Balance of interaction patterns					
6. Appropriate aids/materials					
7. Timings realistically estimated					
8. Anticipation of problems & solutions					
B. Educational Content					
1. Appropriacy of theme/topic					
2. Links to other areas of the curriculum					
3. Opportunities to develop thinking skills					
4. Opportunities to develop cultural awareness					
C. Execution					
1. Clear and effective instructions					
2. Management of stages a) timing b) bridging					
3. Management of tasks/activities					
4. Involvement of and attention to all students					
5. Question (re)formulation and use					
6. Provision of adequate practice opportunities					
E. Communicative Competence & personal skills					
1. Fluency and comfort					
2. Accuracy and clarity					
3. Voice: audibility and projection					
4. Rapport and motivational skills					
5. Self-confidence and presence					
6. Dynamism and enthusiasm					

Appendix 5. Questions to guide post-lesson reflection

U.PORTO POST-LESSON: QUESTIONS TO GUIDE YOUR REFLECTION

Questions about what happened during the lesson

1. What did you set out to teach?
2. Were you able to accomplish your goals?
3. What teaching materials did you use? How effective were they?
4. What techniques did you use?
5. What grouping arrangements did you use?
6. Was your lesson teacher dominated?
7. What kind of interaction occurred?
8. Did anything amusing or unusual occur?
9. Did you have any problems with the lesson?
10. What kinds of decision-making did you employ?
11. Did you depart from your lesson plan? If so, why? Did the change make things better or worse?
12. Which parts of the lesson were most successful? Why?
13. Which parts were least successful? Why?
14. Would you teach the lesson differently if you did it again? How and why?
15. Was your philosophy of teaching reflected in the lesson?
16. Did you discover anything new about your teaching?
17. What changes do you think you should make in your teaching?

Questions about the students

1. Did you teach all the students?
2. Did students contribute actively to the lesson?
3. How did you respond to different students' needs?
4. Were students challenged by the lesson?
5. What do you think students really learned from the lesson?
6. What did they like most?
7. What did they respond well to?

Questions to ask yourself as a language teacher

1. What is the source of my ideas about language teaching?
2. Where am I in my professional development?
3. How am I developing as a language teacher?
4. Did I have any personal aims in this lesson? If yes, was I able to achieve them?
5. What are my strengths as a language teacher?
6. What are my limitations at present?
7. Are there any contradictions in my teaching?
8. How can I help myself improve?
9. How am I helping my students?
10. What satisfaction does language teaching give me?
11. What contribution am I making?

Adapted from Richards, J. C. and Lockhart. C. (1996) *Reflective Teaching in Second Language Classrooms.* Cambridge: CUP

Appendix 6. Research Project Agreement

RESEARCH PROJECT AGREEMENT

I, Maria Elizabeth Ellison de Matos, doctoral student in Didactics of Language Teaching at Faculdade de Letras da Universidade do Porto, request your collaboration and permission to use data generated from the CLIL lessons which form part of your teaching practice for the Master in Teaching English and German in Basic Education. The data generated will include diary entries, questionnaires, spoken and written reflections, lesson plans and materials, films of lessons given. This data will be used for research purposes and may be referred to and published in my doctoral thesis.

I agree / do not agree to collaborate and allow the above data to be used for research purposes. (Please circle)

I will allow / not allow my name to be used in publications about this research project. (Please circle)

Signature:

Date:

Appendix 7. Article about CLIL given to parents by Teacher C at initial meeting

CLIL na Europa

Nos debates europeus sobre a Educação, na última década, a Aprendizagem Integrada de Conteúdos através de uma Língua Estrangeira *(CLIL - Content and Language Integrated Learning*) tem vindo a assumir-se como uma questão prioritária.

Isso prende-se com o facto de a Comissão Europeia estar a fazer esforços redobrados, no sentido de se conseguir que cada cidadão na Europa saiba falar, para além da sua própria língua materna, mais outras duas línguas. Para alcançar este objectivo, muitos países da União Europeia têm estado, há algum tempo, a apostar na introdução de formas integradas do ensino das línguas estrangeiras e dos seus conteúdos para as desenvolverem nos respectivos sistemas escolares. Partindo de modelos educacionais e contextos linguísticos diversificados, desenvolveram-se, na Europa, **modelos de ensino bilingue** muito diferentes uns dos outros. Estes modelos merecem ser comparados e analisados, pois nos seus pontos fracos e fortes pode estar a resposta para o modelo que agora se pretende construir. Por razões de espaço, aqui serão apenas abordados alguns aspectos.

As informações actualmente disponíveis sobre o Ensino Bilingue Integrado na Europa são muito detalhadas. Existem quatro trabalhos fundamentais, que, analisados em conjunto, nos oferecem uma boa perspectiva do CLIL: as duas publicações de Marsh (*Profiling European CLIL Classrooms, 2001; CLIL/EMILE: The European Dimension, 2001*), que foram encomendadas pela Comissão da União Europeia, o Relatório Eurydice da Comissão Europeia de 2006 e o Relatório dos Países, recentemente publicado pelo Conselho Europeu (*Majers et al., 2007*). No texto que se segue irão ser abordadas duas questões centrais que resultaram da análise destas publicações: o alargamento do Ensino Bilingue Integrado nos sistemas de educação europeus e a própria estrutura organizacional do Ensino Bilingue Integrado na Europa.

O CLIL entretanto fortemente implantado em toda a Europa

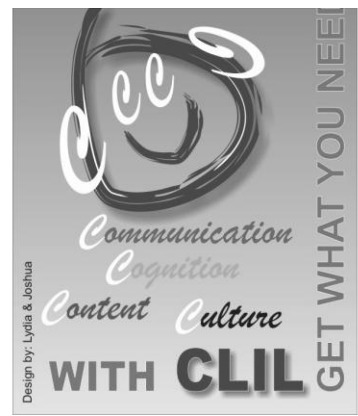
É extraordinário como a Aprendizagem Integrada de Conteúdos através de uma Língua Estrangeira (CLIL) se implantou tão rapidamente no contexto educacional europeu. Antes da década de 80 existiam apenas alguns países onde eram conhecidos, tanto os conteúdos integrados, como a aprendizagem de uma língua estrangeira. Este modelo tinha sido somente introduzido em algumas escolas de elite. Este facto resultou frequentemente de tradições há muito tempo estabelecidas – mas hoje pode assumir-se que, exceptuando alguns casos, a Aprendizagem Integrada de Conteúdos (CLIL) é oferecida em quase todo o território europeu. As excepções são a Dinamarca, a Grécia, a Lituânia, Portugal e Chipre. Como se pode depreender do Relatório Eurydice, a Aprendizagem Integrada de Conteúdos (CLIL) encontra-se, ou implantada de forma permanente, ou sob a forma de módulos a curto prazo. A participação dos alunos neste tipo de ensino, quer a nível do ensino primário como do secundário, situa-se entre os 3 e os 30%. O Luxemburgo e Malta são os únicos países onde alunas e alunos aprendem obrigatoriamente pelo menos duas línguas estrangeiras.

O Inglês em primeiro lugar

Não é apenas o Relatório Eurydice que nos permite avaliar a utilização das línguas CLIL no contexto europeu. São também muito importantes os relatórios menos recentes e o Relatório dos Países editado pelo Conselho Europeu. Nestes países é o Inglês que se destaca de entre todas as línguas estrangeiras. Na sua implantação europeia, encontra-se, em termos percentuais, muito à frente de todas as outras línguas. Seguem-se-lhe o Francês e o Alemão. Alguns países referem também o Espanhol, o Italiano e o Russo. A este grupo pertencem, por exemplo, a Hungria e a República Checa.

Num alargado número de países o CLIL é oferecido tanto no ensino primário como no secundário. Em alguns países, como na Bélgica, na Espanha, em Itália, na Finlândia, na Grã-Bretanha e na Roménia, já existem programas e actividades noutra língua estrangeira ao nível do pré-escolar.

O debate sobre as disciplinas mais adequadas



Desde o princípio do debate sobre o CLIL que se coloca a seguinte questão: quais as disciplinas mais adequadas para serem ensinadas na língua estrangeira e quais as menos adequadas. Faz-se normalmente a distinção entre os três seguintes grupos de disciplinas: o grupo das ciências sociais e

humanas (história, geografia, estudos sociais), o grupo das ciências naturais (matemática, física, biologia) e o grupo das disciplinas de expressões (arte, desporto, música). Dos inquéritos realizados pode depreender-se que na maioria dos países não existe nenhuma norma específica.

Na área das disciplinas das ciências naturais, surgem a matemática, a física, a química e as tecnológicas nesta ordem de importância. As disciplinas da área das ciências sociais que mais frequentemente aparecem mencionadas são a história, a geografia e a economia. Das disciplinas de expressões as mais mencionadas são a música e a arte.

Artigo reduzido e retirado do site: http://www.goethe.de/ges/spa/dos/ifs/ceu/pt2751287.htm

Appendix 8. Sample of Teacher's R's long-term planning timetable

Plan - 1ST Semester

Theme: Nature: Growing plants **Class:** 3º A

Topics:
1. Type of plants
2. Plant reproduction
3. Parts of a plant
4. What plants need to survive
5. Plants around me

Date Time	Topic Lesson type	Activities	Resources
20/10/10 16:45 17:30	1. Types of plants - leaves (Language/CLIL lesson)	• Classroom routines –classroom language song, weather/day song • Revise- difference between trees • Worksheet – draw and colour	Flashcards Portfolio Worksheet
21/10/10 9:00 9:45	1. Types of plants – plants' changes (Language/CLIL lesson)	• Classroom routines –classroom language song, weather/day song • Seasons' poster – plants differences during the seasons/SS say and T. writes on the board. • Song – listen/check answers/ matching picture and words/ order the song using the flashcards	Poster – Seasons Flashcards Song – cd Radio
22/10/10 16:00 16:45	1. Types of plants – plants' changes (Language/CLIL lesson)	• Classroom routines –classroom language song, weather/day song • Seasons' poster – plants differences during the seasons – revising/checking • Song – sing in different ways (boys are the trees and girls are the birds)	Poster – Seasons Flashcards Song – cd Radio Worksheet
27/10/10 16:45 17:30	1. Types of plants – plants' changes (Language/CLIL lesson)	• Classroom routines –classroom language song, weather/day song • Ask about changes during the Seasons – put cards on the board as SS say. • Song – sing • Worksheet – listen and fill in the song	Poster – Seasons Flashcards Song – cd Radio Worksheet
28/10/10 9:00 9:45	1. Types of plants – plants' changes (Language/CLIL lesson)	• Classroom routines –classroom language song, weather/day song • Drawing 4 trees on the board – SS say the differences between trees during the 4 Seasons • Worksheet – drawing changes during Seasons according to the song.	Storybook

29/10/10 16:00 16:45	Diagnostic test	• SS do a diagnostic test	Diagnostic test sheet
03/11/10 16:45 17:30	1. Types of plants – plants' changes (Language/CLIL lesson)	• Classroom routines –classroom language song, weather/day song • Difference between grown plants and those that grow spontaneously • Worksheet – copy type of plants	Flashcards Worksheet
04/11/10 9:00 9:45	1. Types of plants – plants' changes (Language/CLIL lesson)	• Classroom routines –classroom language song, weather/day song • Difference between grown plants and those that grow spontaneously • Plants we can eat – ask their opinion • Worksheet – plants we can eat - write/colour	Flashcards Worksheet
05/11/10 16:00 16:45	2. Plant reproduction (CLIL)	• Classroom routines –classroom language song, weather/day song • Flashcards - seed/bulb/cutting • Experiment – explain experiment/choose groups (6 groups) • Register sheet – SS predict/ discuss (what I know)	Flashcards Register sheet
Date Time	**Topic Lesson type**	**Activities**	**Resources**
10/11/10 16:45 17:30	2. Plant reproduction (CLIL)	• Classroom routines –classroom language song, weather/day song • Experiment – group work - growing three different plants • Groupwork – each group plants a different one • Register sheet – fill in after the experiment (What I learnt)	Six pots Soil Water Seeds/ bulbs/ cuttings Labels Register worksheet
11/11/10 9:00 9:45	2. Plant reproduction (CLIL)	• Classroom routines –classroom language song, weather/day song • Flashcards – pots (plants) –revise reproduction of plants • Worksheet – describe the plants/SS write number/complete sentences/order the steps	Flashcards Worksheet
12/11/10 16:00 16:45	2. Plant reproduction (Language)	• Classroom routines –classroom language • Story – *The Enormous Carrot* • Drawing an enormous carrot	Story White paper

Appendix 9. Diagnostic test for English language competence

Diagnostic test: Picture dictation and questions

1. **General questions about the picture**

Hand out pictures to children.
(All statements and questions may be said up to three times)
Look, what's this? (point to school) It's a school.
Look, what's this? (point to the river) It's a river.
What's this? (point to house) It's a house.
Who's this? (point to man) It's a man.
Who's this? It's a woman.
What are they saying?

2. **Listen and draw**

Listen and draw what I say. Don't show anyone. (Gesture to cover picture)
It's raining. Draw the rain.
Look at the house. Draw 5 windows and a big door.
Draw some flowers in the garden.
Draw a cat in the garden.
Draw a boat.
Draw a car.
Draw a fish.

3. **Listen and colour**

You will need some coloured pencils.
Listen and colour.
The car is blue.
The fish is orange.
The door of the school is red.
The umbrella is yellow.
The cat is brown.
Colour the flowers. (1 colour) Ask individuals: What colour are the flowers in your picture, João?

4. **Listen and point.**

Point to the ……
Continue by saying the object only.
Choose individuals to take over. Note who.

5. **Say what's in the picture**

Ask what's in the picture. E.g., *tell me three things in the picture…*

6. **Add one more thing to the picture**

Tell children to draw one more thing in the picture.

Go around class monitor/ask what children have drawn. Ask a few individuals what they have drawn in open class.

7. **Label the picture**

Write the words for the objects in the picture on the board.
Tell children to label the picture. They do this on their own. If they don't know…they leave it.

8. **Concept checking.**

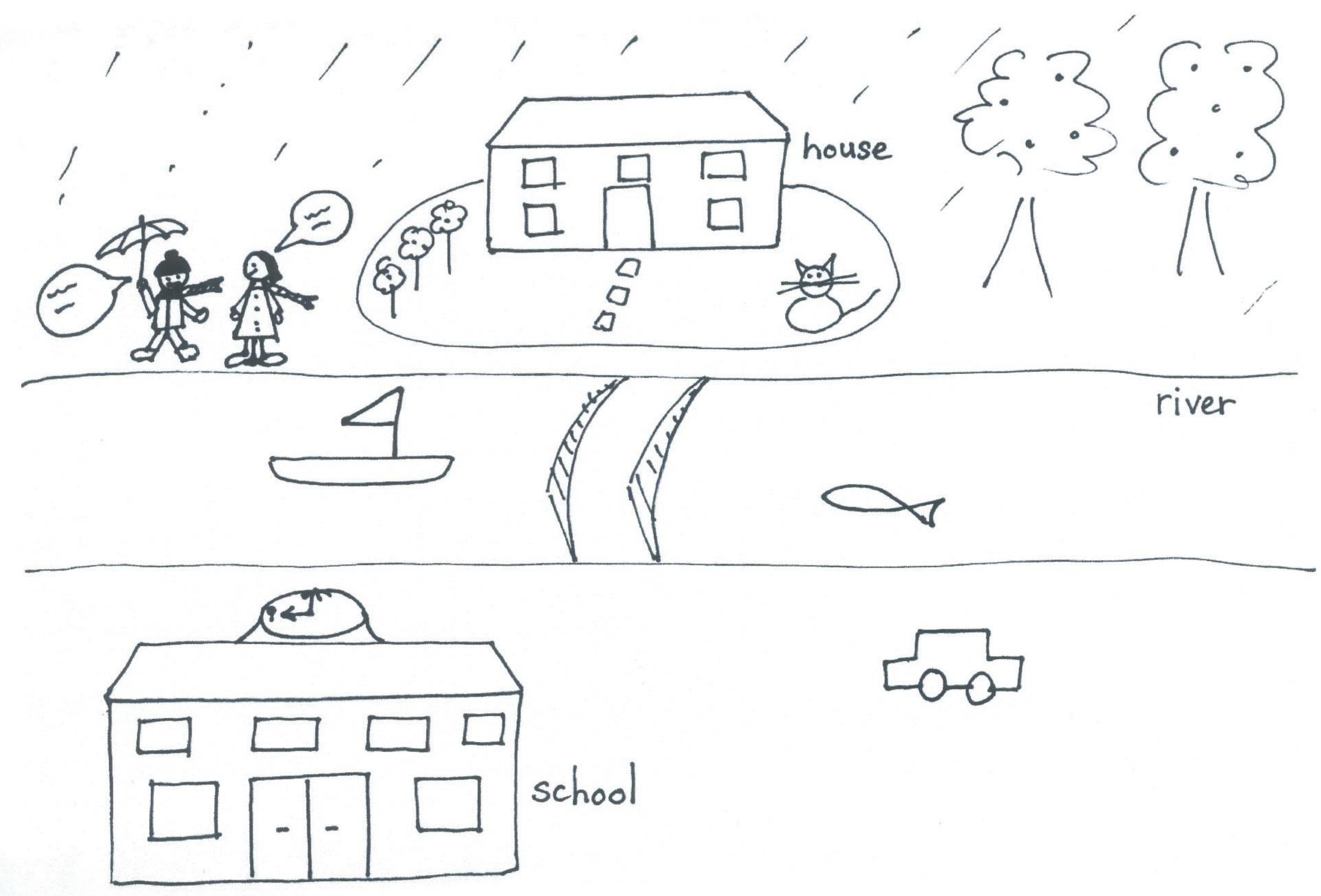
Ask the questions below in open class. Note what and how they answer (in Portuguese or English/ full sentences or words)
Why has the man got an umbrella?
Where is the fish? Is it in the river? Why/why not?
Why is the man wearing a hat and scarf?
Where are the children? (at school) *Why*? Children go to school/it's nine o'clock.
Is the picture of the city or the country? Why?
Do you like the picture? Why/why not?

Using Portuguese

If the children did not respond to any question, ask them now in Portuguese. Note how long/short/simple/complex their answers are.

Picture show

Ask children to show you and each other their pictures. Make sure they do not change anything.
Ask children to write their name and age on the back of the picture.
Collect pictures.


house
river
school

umbrella
house
boat
river
school
Car
24/09/2010

Appendix 10. Questionnaire 1. Pre-phase

Pre-CLIL experience questionnaire
Student teachers MEIB
27th September 2010

1. **What do you understand by the term CLIL?**

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

2. **Have you ever been involved in CLIL before? If yes, briefly explain the extent of your involvement.**

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

3. **What is the nature of your current CLIL experience?**

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

4. **How do you feel about implementing CLIL in your lessons?**

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

5. How confident are you about teaching the content through English?

Very confident   quite confident   confident   not very confident

6. What, if any, are your concerns about introducing CLIL in your primary lessons?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

7. To what extent do you think your CLIL lessons will be similar or different to your language lessons?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

8. What has been the reaction of the school community?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

9. To what extent is the generalist teacher involved?

Totally   quite a lot   a little   not at all

Comment

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

10. In what ways could he/she help you?

……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………

Thank you ☺

Appendix 11. Questionnaire 2. Pre-phase

FACULDADE DE LETRAS
UNIVERSIDADE DO PORTO

Student-teacher Pre-CLIL Practice Questionnaire
November 2010

Section 1. Personal information
Name:
……………………………………………………………………………………………….

Age: ……..

Qualifications:
Degree: ………………………………………………………………………………………..
YL courses:
………………………………………………………………………………………………
Nº years teaching experience: ………

Nº years teaching YLs: ………

****

Section 2. School context

1. How did you introduce the idea of CLIL to the school community?

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

2. What was the reaction of

The school director?
………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

The generalist teacher?
………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

The parents?
………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………
The children?
………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………

Section 3. Collaboration with the generalist teacher

1. To what extent have you collaborated with the generalist teacher?

A lot quite a lot a little not at all

2. Who decided on the content to be taught? (please circle)

You Generalist You and generalist School director Parents

Briefly describe the nature of your collaboration with the generalist teacher
………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………

Section 4. You as a CLIL teacher

1. How have you been preparing for your CLIL lessons? (please circle)

Reading about CLIL
Consulting Estudo do Meio programme
Consulting school programmes
Talking to school community
Other (please specify)

2. How do you feel about the prospect of teaching CLIL?

………………………………………………………………………………………………………
………………………………………………………………………………………………………
………………………………………………………………………………………………………

3. To what extent will it be different from teaching EFL lessons to YLs?

Very different a little different the same

4. What will be the main differences?

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

5. To what extent do you think you will have to adjust your practice?

A lot Quite a lot Not very much not at all

Comment
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

6. What are the main differences between teaching EFL and CLIL?

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

7. What strategies will you use to support learning in the CLIL lessons?

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

Thank you

Appendix 12. Questionnaire 3. Action-phase

Interim CLIL experience questionnaire
Student teachers MEIB
January 2011

1. **To what extent have you enjoyed your CLIL experience so far? (Please circle with 5 being the most positive and 0 the least)**

0 1 2 3 4 5

2. **Has your CLIL experience been different that what you had expected? (please circle)**

Yes No

If 'yes' please comment on how it has been different.
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

3. **How prepared were you before you started the experience?**

Very quite a lot a little not at all

4. **How helpful was your training at FLUP? (Please circle with 5 being the most positive and 0 the least)**

0 1 2 3 4 5

5. **In what ways could it have been better?**

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

6. **How useful have the videos of your lessons been? (Please circle with 5 being the most positive and 0 the least)**

0 1 2 3 4 5

7. **What have you learnt, if anything, from watching yourself teach?**

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

8. **What has been the easiest part of the CLIL experience?**

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

9. **What has been the most difficult?**

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

10. **Has CLIL influenced the way you now approach your language lessons? (please circle)**

A lot quite a lot a little not at all

Comment

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

11. What are the similarities and differences between your CLIL and language lessons?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

12. How could the CLIL experience be made better?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

13. What, if any, evidence do you have that CLIL is working for the children?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

14. Do you intend to change anything before you begin your next CLIL experience? (please circle)

Yes No

If 'yes', what do you intend to change? Planning/scaffolding/execution/other

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

15. How supportive has the school community been during this first CLIL experience?

Very supportive   quite supportive   a little supportive   not very supportive

Comment

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

16. What has been the extent of your relationship with the generalist teacher?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

17. If you had the opportunity to make all of the decisions regarding your next CLIL experience, what would you do?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

18. At this stage in your practice, explain how CLIL is influencing your personal or professional development.

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

Appendix 13. Questionnaire 4. Pre-final CLIL experience

Pre-final CLIL experience questionnaire
April/May 2011

1. **What do you understand by the term CLIL now at this stage in your teaching practice?**

   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

2. **How confident are you about teaching CLIL now?**

   Very confident   Quite confident   Confident   Not very confident

3. **In what ways have you evolved as a CLIL teacher?**

   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

4. **What are your strengths and weaknesses?**

   ……………………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

5. What have you learnt, if anything, from watching yourself teach?

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

6. To what extent has CLIL influenced the way you now approach your language lessons? (please circle)

A lot quite a lot a little not at all

Comment

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

7. What are the similarities and differences between your CLIL and language lessons?

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

8. What, if any, evidence do you have that CLIL is working for the children?

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

9. In what way, if any will this final CLIL experience be different from the others?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

10. Do you intend to change anything before you begin your next CLIL experience? (please circle)

Yes No

If 'yes', what do you intend to change? Planning/scaffolding/execution/other

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

……………………………………………………………………………………………......

11. What is the support of the school like now at this stage?

More same as before less than before

12. In what way, if any will this final CLIL experience be different from the others?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

13. At this stage in your practice, explain how CLIL is influencing your personal or professional development.

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

Thank you ☺

Appendix 14. Questionnaire 5. Incorporating CLIL Pedagogy in the Language Teacher Education Programme

Incorporating CLIL pedagogy in the Language Teacher Education Programme

Questionnaire for Student-teachers 6th June 2011

1. On a scale of 0 – 5 with 5 being the most positive, rate the following areas of the CLIL input you received from FLUP. Circle the number which best reflects your opinion.

Theory of CLIL	5	4	3	2	1	0
Lesson planning	5	4	3	2	1	0
CLIL materials	5	4	3	2	1	0
Scaffolding CLIL	5	4	3	2	1	0
Analysing films of CLIL lesson	5	4	3	2	1	0
Pre-observation discussion	5	4	3	2	1	0
Post-observation feedback	5	4	3	2	1	0

2. In what ways, if any, could the FLUP input be improved?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

3. To what extent has teaching CLIL lessons helped you with the following: (circle the option which best reflects your opinion)

Your knowledge of other subjects	A lot	Quite a lot	Not verymuch	Not at all
Your knowledge of other methodologies	A lot	Quite a lot	Not verymuch	Not at all
Your language competence in CLIL lessons	A lot	Quite a lot	Not verymuch	Not at all
Your language use in CLIL lessons	A lot	Quite a lot	Not verymuch	Not at all
Your language competence in non-CLIL lessons	A lot	Quite a lot	Not verymuch	Not at all
Your language use in non-CLIL lessons	A lot	Quite a lot	Not verymuch	Not at all
Your awareness of making children think in CLIL lessons	A lot	Quite a lot	Not verymuch	Not at all
Your awareness of making children think in non-CLIL lessons	A lot	Quite a lot	Not verymuch	Not at all

4. What benefits of teaching CLIL have you experienced, if any at all?

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

5. What disadvantages have you experienced, if any at all?

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

6. What advice would you give student-teachers about teaching CLIL lessons in their teaching practice?

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

7. Do you think that CLIL should be incorporated in the Language Teacher Education programme at FLUP?

Yes No Don't know

8. Why did you answer this way?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

Further comments

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

Many thanks for your cooperation
☺

Appendix 15. Questionnaire 6. Teacher Perspectives and Profiles

Questionnaire
Teacher Perspectives and Profiles

This questionnaire is included in ongoing doctoral research into the effects of implementing Content and Language Integrated Learning in the foreign language teacher education programme at FLUP. Your participation is appreciated.

1. In what way, if any, has your CLIL experience changed the way you view the teaching of English in primary schools?

……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………

2. Has your own teaching in English language lessons changed as a result of this experience? (please circle)

No Yes

If you answered 'yes', please say in what ways it has changed and which cycles of education this refers to. For example, what do you do now that you didn't do before?

……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………

3. In relation to your answer above, are you conscious of these changes in a planning/pre-lesson stage and/or while teaching?

…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

4. Do you think there are any differences between being a CLIL teacher (based on your experience and being an English language teacher? (please circle)

No Yes

Comment
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………
…………………………………………………………………………………………………

Appendix 16. Questionnaire 7. Post-Masters Reflection

REFLECTION POST MASTERS COURSE
May 2013

This questionnaire is part of doctoral research into developing reflective practice in foreign language teacher education through Content and Language Integrated Learning (CLIL) at Faculdade de Letras, Universidade do Porto.
Your participation is appreciated.

TEACHING EXPERIENCE

1. What has been your teaching experience since finishing your Masters course?

2. Has this experience included any CLIL teaching?

3. Do you think your experience of teaching CLIL lessons during your Masters degree has influenced your teaching? If yes, please say in what way it has.

REFLECTIVE PRACTICE
During your Masters course, you were encouraged to reflect on your teaching experience.

1. Briefly describe the process.

2. How did you feel about this process?

3. Which was your preferred form of reflecting during the Masters course? Please circle and comment on your choice.

   Writing

   Speaking (individually with the university teacher)

   Speaking in group seminars

4. If you had been given the opportunity to reflect in Portuguese would your reflections have been any different? Please comment on your answer.

5. If your some of your reflections had not been assessed, would they have been any different? Please comment on your answer.

6. Has the reflective process which you went through during your Masters influenced the way you reflect on your teaching now? Please comment on your answer.

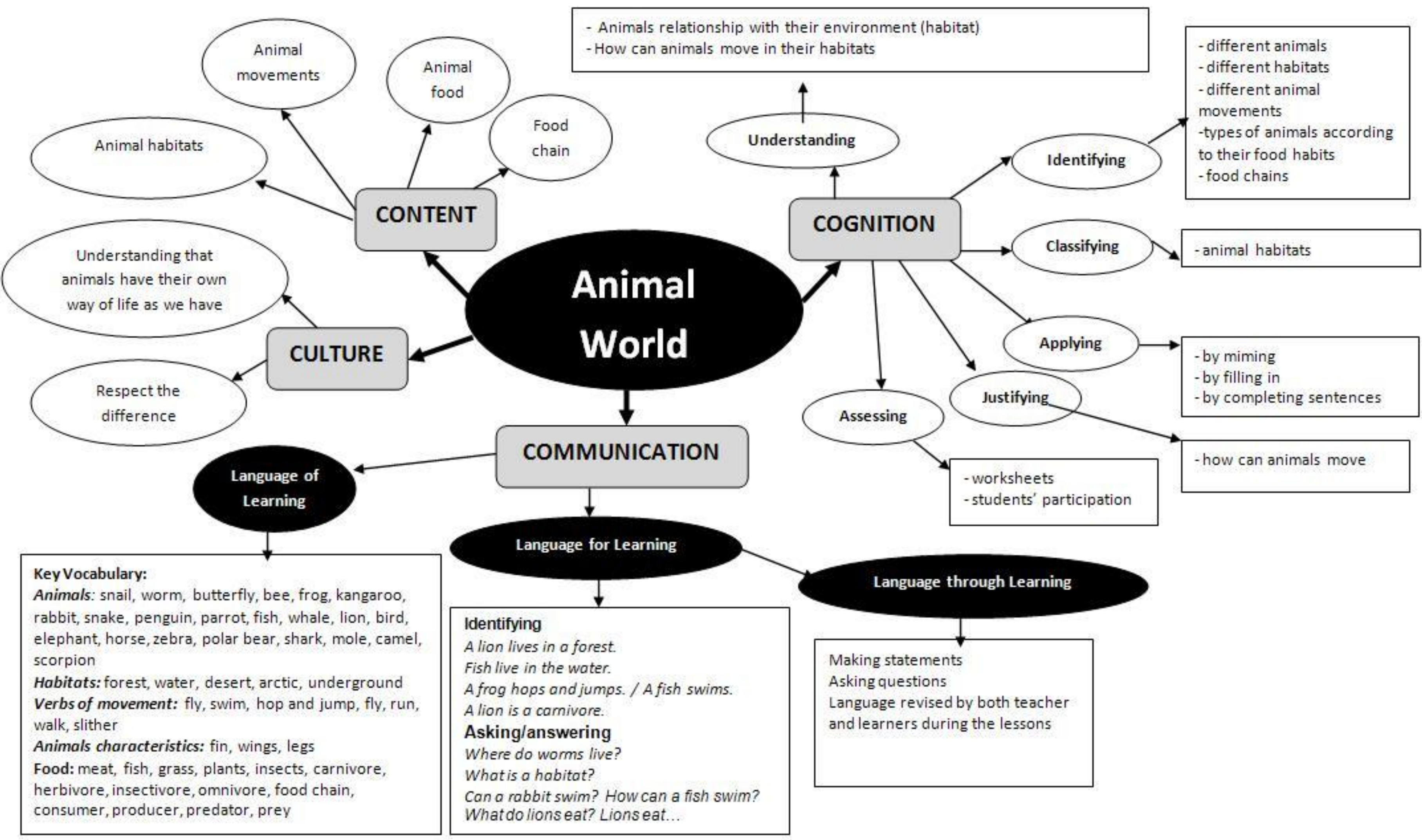
   Thank you very much!!

Appendix 17. Generalist teacher observation sheet

GENERALIST TEACHER OBSERVATION SHEET: TEACHER STRATEGIES TO SUPPORT LEARNING

Planning	**Comment/examples**
Sequencing of lesson/activities **Level of challenge**	
Materials	
Cognitive demands	
Presentation of content	
Prior knowledge activated **Use of visuals**	
Teacher talk	
Use of questions: type and frequency (for checking understanding/supporting learning) **Modifies vocabulary/use of synonyms/antonyms** **Repetition of key language**	
Supporting content	
Supporting learning	

Appendix 18. Example of CLIL lesson plan



Estudo do Meio

PROJECTO CURRICULAR DE TURMA	Todos Diferentes, Todos Iguais
GLOBAL GOAL	Everyone is different, Everyone is alike

Unit: "*Animal world*" - **LESSON 3** **LEVEL:** 3th Grade **TIMING**: 60 minutes

Aims

- To recall previous knowledge (revision of what habitat is)
- To introduce some vocabulary related to food and animals
- To make students aware of what they already know about animals' food
- To teach how we classify animals according to their eating habits (carnivores, herbivores…)
- To introduce the notion of food chain, producers, consumers and predators
- To develop Ss' listening and speaking skills
- To help learners understand that learning can be achieved in a second language

Assessment Criteria

Teacher, peer- and self-assessment processes will be used to assess how well learners:

- identify what animals eat
- classify animals according to what they eat
- match definitions with words
- understand what a food chain is by building one on their own
- co-operate with his/her colleague
- participate in all tasks and activities

Teaching Objectives

Content	Cognition
• The concept of food chain • Animals' eating habits • What producers, consumers and predators in a food chain are	• Classifying animals according to their eating habits • Understanding what a food chain is • Learning how to build a food chain • Comparing animals • Applying their knowledge by doing their own food chain

Culture

- To understand that animals have their own way of life as we have
- To respect the difference

Communication

Language *of* Learning	Language *for* Learning	Language *through* Learning
Key Vocabulary: ***Animals**:* spider, grasshopper, hawk, frog, rabbit, fox, goat, kangaroo, snake, pig, penguin, parrot, fish, whale, lion, bird, elephant, horse, zebra, polar bear, shark, camel, giraffe **Food:** meat, fish, grass, plants, insects, carnivore, herbivore, insectivore, omnivore, food chain, consumer, producer, predator	**Identifying** *Frogs eat insects.* *They are insectivores.* *I think lions eat meat.* **Asking/answering** *What do lions eat?* *Can a carrot eat a rabbit? No*	Making statements Asking questions Language revised by both teacher and learners during the lessons

Learning Outcomes

By the end of this lesson learners will be able to:

- classify animals according to what they eat (herbivore, carnivore, insectivore, omnivore)
- understand the concept of a food chain
- create their own food chain

CLIL Lesson PLAN

TEACHING / LEARNING ACTIVITIES			
Time Inter	**Stage – Procedures**	**Aims**	**Scaffolding strategies**
5 m T	***Lead-in*** T greets St. T starts by asking where animals live. Ss recall the definition of habitat. T asks them how animals can survive. T. waits for answers. Then says that FOOD is very important. (Powerpoint SL 1 – 6)	To remind them what they have learnt previously.	Pause to enable students speaking time
5 m T-Ss	T asks Ss what animals eat. Some may say things like plants, meat. Then T tells them that it can be plants, meat or insects. (SL 7)	To involve Ss in the topic and remind them that they already know some information	Using visuals to make the vocabulary clear
10 minutes GW	***Thinking Task*** T divides class in small groups and gives them a worksheet. They have to discuss in groups and find out what animals eat. (SL 8-9) T asks Ss to speak about this subject by asking them "*Do you think snails eat meat"?* Students will be able to answer because T will show them a grid on the board to help them (SL 9) Correction of the worksheet follows. (SL 10)	To cooperate while deciding To make them think what animals eat To give them time to speak and express their thoughts	Providing language of learning Pause to enable thinking time and speaking time
10 minutes T-Ss PW	***Thinking Task*** T says again: *What do lions eat?* T gives them a multiple choice. Ss have to choose between *plants, meat, insects.* (SL11-15) Now T says that animals can be classified into *herbivores, insectivores, carnivores and omnivores. But what's this?* T asks them to match these words with their definitions. T puts the flashcards on the board randomly and asks some students to match. T divides them into pairs and gives them a worksheet. Ss are asked to complete the diagram. (SL 17). T provides feedback by correcting the worksheet. (SL 18)	To check if they have understood To make them think by establishing a connection between the words and the food animals eat To check if they understood the meaning of these new definitions	Visual aids
10 m IW	**Introducing FOOD CHAIN** T asks *Who do you think eats who? Can a carrot eat a rabbit? (NO).* (SL 19-23) T explains that this is a FOOD CHAIN. *The carrot is food for the rabbit and the rabbit is food for the rabbit.* Hence the meaning of the arrows.	To make Ss think logically and apply what they already know as a fact.	Giving them the visuals and the words

T-Ss Ss	T. explains what a food chain is and gives one example. (SL 24-26) Then T shows a picture of several food chains and asks Ss to explain who eats who. T gives them time to explain. (SL27) Then T introduces the notion of *producers, consumers and predatores.* *Producers just produce food. They don't eat other plants or animals. Consumers eat. And the predator is at the top of the food chain.*	To teach new concepts and make sure they understand To apply what they have learnt	T points to the arrows while explaining Giving thinking time
10m GW	**Practice** T divides class into 6 groups. T gives each group some pictures of animals. Then Ss are asked to build their own food chain. Teacher monitors work. Then asks Ss to put their food chains on the wall so that other Ss can see it. Ss are invited to explain their food chain. (SL 29)	To apply what they have learnt To cooperate with each other while doing the task	The pictures have words (*ex.producer*) on it to help. Giving them a grid to help them speaking
10m IW	**Further Practice** T gives them a worksheet and now they have to draw arrows to build a food chain. (SL 30) T gives feedback (SL 40) At the end Ss are asked to draw and build their own food chain.	To apply what they have learnt To make sure that they have understood everything	

INSTRUMENTS OF ASSESSMENT

- Teacher monitors group and individual activities
- Learners' participation in all tasks and activities
- Learners' interaction with the group
- Learners' successfully answering the questions
- Learners' complete of the tasks

Materials

Computer, projector and whiteboard, flashcards, handouts (3), pens and whiteboard

NOTES

Ss may find difficult to do all this in 1 hour. If it is necessary more time, I'll stay there and complete the lesson plan.

Appendix 19. Question frame for first interview with generalist teacher

Interview with generalist teacher /school director
November 2010
School:
Teacher/director:

1. What do you see as purpose of English in primary schools?
2. What do you think of English in primary schools?
3. What do you understand by CLIL?
4. Had you heard about it before?
5. What do you think of the idea of CLIL in “Estudo do Meio”?
6. Do you have any concerns?
7. Does the school community have any concerns?
8. What do the parents think?
9. How do you think the children will benefit?
10. Have you ever worked with a Primary English Teacher (PET) before? If yes, how?
11. How do you feel about a language teacher teaching the content of “Estudo do Meio”?
12. What do you think the PET needs to be able to do this effectively?
13. How do you think they need to support learning?
14. What strategies do you think they need to use?
15. Would you ever consider teaching “Estudo do Meio” through another language?
16. Do you think this should be continued?

THANK YOU

Appendix 20. Question frame for second interview with generalist teacher

Interview with generalist teacher /school director
February 2011
School:
Teacher/director:

1. What are your thoughts about the 'experiment' so far?
2. What were your original goals?
3. How effective is it, in your opinion?
4. What has been the most difficult thing/the easiest?
5. Have you needed to cover any areas in L1?
6. Do you refer to what X is doing in her lessons?
7. Have you noticed any change in the children?
8. Do they use English words in your lessons? How do you deal with this?
9. What, if anything are you learning from the situation (about the children/methodology?
10. Is there anything X needs to know more about/do more or less of?
11. Will any changes be made before this next stage?
12. Is it changing the way you view how English should be taught in primary schools? If yes, in what way?
13. How different is it to what was done before?
14. How will you evaluate it?
15. How will parents/the school community know about it?

THANK YOU

Appendix 21. Question frame for third interview with generalist teacher

Interview with generalist teacher

April/May 2011

Feedback on CLIL experience

1. What do you think of the way the project has gone?
2. What have you learned from it?
3. Did the concerns you had become real concerns during the project?
4. Have you noticed any changes in the children?
5. Do they use English words in class?
6. Do you think they have benefitted? How?
7. Has it changed the way you view how English should be taught in primary schools?
8. Would you consider continuing with this project? In what way?
9. Would you have let anyone else do it?
10. What improvements could be made?
11. Can you now say what you think CLIL is from this experience?
12. How will you evaluate the children?
13. Will parents be informed?

THANK YOU

Appendix 22. Processing and organising raw data for analysis of sub-categories and types of reflection.
CLIL experience: reflection on action: January/February (questionnaire (q) and interview (i) data).
Student-teacher: CD Understanding of CLIL

SUB CATEGORY	EVIDENCE	TYPE OF REFLECTION
Importance of sharing experiences with other teachers to gain understanding of CLIL	What I have learned about CLIL was through what I had researched and read about that. It helped me a lot the site from Floriá and the lesson that I saw about a CLIL lesson. The experiences that I shared with the other teachers that are also implementing CLIL, were very useful for me to understand how CLIL should be taught. (CD q)	2
Naturalistic learning	I understand that in CLIL the way Ss learn the language is more natural but it requires more time. (CD q)	1
Appreciation of benefits for students; natural way of learning.	I really think that Clil is a very interesting way of approaching a language and certainly it will be in the future more helpful to prepare Ss both for studying and working life. It is in fact a more natural way of learning a language. (CD q)	3
Improving CLIL through blending language and content lessons; fun.	However at this point I think it could be more effective if it was a mixture of a language lesson and a content lesson. We could teach Ss, for example, science topics, experiments but at the same time reading stories, doing games and turn the lessons more enjoyable. A cross-curricular approach is for me a good way of doing both. (CD q)	3
Understanding of ideal conditions to make CLIL work – time, scope, linguistic and cognitive demands of tasks balanced; scaffolding strategies; repetition of language for communication over time	I would choose a full topic and I would like to teach them everything about that topic and see at the end if they would be able to speak and write about what they have learned. I would have the time to develop materials and varied tasks, which would be at the same time linguistically accessible and cognitively demanding. I would use a lot of visuals, presentations to facilitate Ss understanding and comprehension of the content. With time, the language needed to communicate would be repeated in different ways and easily acquired. (CD q)	2
Misunderstanding communication in CLIL lessons	Now, and for example, when I heard about CLIL, I thought it wasn't communicative because teaching scientific topics, err, it's not communicative. Now, I'm changing my opinion and I think that we could teach it and then integrate the science context in a language lesson and it would be more communicative. (CD i)	2

Appendix 23. Collective sub-categories for deductive category: Understanding of CLIL

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
Definition • content based teaching/cross-curricular language teaching • learning subjects through another language other than the mother tongue • when a language teacher teaches topics from other subjects **Process of understanding** • reading about CLIL • consulting Estudo do Meio programme • consulting school programmes • talking to school community • looking on the internet for sites that talk about CLIL and give examples of materials and ways to teach **Benefits for learners** • increased motivation • increased language level • lessons more meaningful • richer, more meaningful content • thinking skills development • preparation for study and working life	**Definition** • opportunity to learn content using a foreign language • awareness of initial confusion with cross-curricular language teaching: double exposure to content in different language codes • one language code • students learn a topic through a foreign language; content through a language and language through a content • naturalistic learning; real life situations • lesson focus is on content • interesting way of approaching language **Improving CLIL** • through blending features of language and content lessons **Process of understanding** • knowledge and new ideas through practice • understanding from/with others • importance of sharing experiences with other teachers engaged in CLIL to gain understanding • understanding would be improved through observing CLIL in practice elsewhere **Appropriate conditions for CLIL** • understanding the need for more time for lessons and support of the school community • who is best to teach CLIL: language teacher	**Definition** • CLIL is not cross-curricular language teaching • acknowledging initial misunderstanding of CLIL (cross-curricular language teaching) • teaching specific content of school curriculum through a foreign language • integrating content and language in the teaching/learning process • naturalistic learning; real life situations • a new approach in which a foreign language used to teach subjects in the curriculum and not for teaching the language itself • curriculum subjects taught in the foreign language not re-taught by generalist teacher in the mother tongue: not bilingual • means of motivating students who have difficulties with languages • focus is on content and concepts not grammar or accuracy • richer, meaningful content **Process of understanding** • understanding through practice • understanding through others: videos of lessons; lesson plans; use of substitution tables for language support **Appropriate conditions for CLIL** • knowledge of curriculum • collaboration with generalist teacher • who can teach CLIL

	Understanding scope and range of CLIL • demystifying difficulty • type of learner • potential to explore an entire topic with time **Awareness of methodology** • linguistic and cognitive demands of tasks • scaffolding strategies • repetition of language for communication over time • cognition vs. communication: difficulty determining focus • awareness of misunderstanding communication in CLIL lessons **Benefits for learners** • natural way of learning **Teacher confidence** • appreciation of own practice as the right way • confidence in own understanding and ability	• language teacher best placed because of range of methodologies they can use • communities of practice - stakeholder collaboration • examples of practice as models • making English compulsory in primary schools **Understanding scope and range of CLIL provision** • broader view: connecting school with world reality; need for better linguistic and communicative competence in globalised/technological era • demystifying idea that CLIL is for the elite **Awareness of methodology** • complexity of CLIL **Benefits for learners** • motivation and interest • renewed interest in English • cultural awareness • internationalisation • language competence • improved engagement of weaker students • errors seen as natural part of learning • improved fluency • more natural, 'real' way of learning • ability to think in different languages • preparation for work and study

Appendix 24. Example of sub-category organisation for one teacher for 'Context'

TEACHER: R
LIST OF SUB-CATEGORIES FOR DEDUCTIVE CATEGORY: CONTEXT

<table>
<tr><th>PRE-ACTION PHASE</th><th>ACTION PHASE</th><th>POST ACTION PHASE</th></tr>
<tr>
<td>School community
• Willingness to help
• Majority teacher disinterest
Parents
• Interested in knowing more about CLIL
• Interested in length and continuation of project
Generalist teacher
• Support through listening to and sharing ideas, giving opinion; information about students
• Observation and feedback on lessons
• Explanation of content
CLIL teacher feelings about implementation
• Anticipating difficulty with school community reaction to CLIL
• Overcoming difficulty through promoting advantages of CLIL</td>
<td>School community
• Support, respect, curiosity; home- school links (children talking about CLIL projects at home)
Generalist teacher
• Support– experience, ideas; reassurance
• Collaboration
• Feedback on lessons; suggestions
Lessons
Time constraints :
• For the preparation of lessons, materials, reading
• Length of lesson (45 min too short)</td>
<td>School community
• Acceptance of school community
• Positive attitude of school community towards CLIL project
Parents
• Approval
• Appreciation
• Interest in continuation of project
Generalist teacher
• Support through sharing ideas, opinion, feedback on lessons, planning activities, meetings to plan, students' behaviour , difficulties, needs and progress
• Observation and feedback on lessons
Lessons
• Extending knowledge at home(children talking about CLIL projects at home)
Language teachers
• Improved status in parents' view</td>
</tr>
</table>

Appendix 25. Coding longer sections of text

POST-CLIL EXPERIENCE REFLECTION
STUDENT TEACHER: CD
TEACHER COMPETENCES

SUB CATEGORY	EVIDENCE	TYPE OF REFLECTION
Teacher preparation – the need to study subject content Time; constraints of language teacher experience - focus on language; ELT techniques	…when you select the topic is important to study it in English. During this school year, there were topics such as, *"The parts of the plants"* and *"Magnetism"* that I had the need to study more deeply. I'm a language teacher not a Science teacher, so apart from not knowing how to say some words in English, I had also to study the scientific content in order to teach my pupils. This research process was interesting but also time consuming. In the beginning, as a language teacher, I was more concerned about the language and it was difficult for me to understand how to introduce language and content at the same time. In my first lessons I spent a lot of time doing drilling and I wasn't able to provide correctly the content and the language. The pupils weren't active participants and they used Portuguese most of the time. The materials were good but I didn't use them properly because of my lack of experience. The videos that I saw of my lessons and the lessons of other colleagues, as well as the lesson plans from Floriá, had helped me to understand how to provide the language for, to and through learning by using substitution tables. (CD)	2

Appendix 26. Sub-categories and themes for ‘Context’

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
School community Expressed: • interest • support • support from school director in selecting generalist teacher and class • acceptance of project • curiosity about new approaches in teaching • willingness to help • majority teacher disinterest **Parents** Concerns: • language support • concerns about weaker students and students who do not attend English lessons not understanding content • not knowing the content in Portuguese • interested in knowing more about CLIL • interested in length and continuation of project Support • felt children were privileged • curious about how CLIL would work • consider project interesting and innovative **Generalist teacher** • interest • disappointment in Portugal’s lateness to innovate • discomfort at being observed Support through: • materials	**School community** • authorisation of CLIL project based on trust (knowing the language teacher) • concern about failure of students due to lack of language knowledge • supportive of CLIL **Parents** • support, respect, curiosity, home- school links children talking about CLIL projects at home) • fear of student failure • support • appreciation • withdrawal of children from English language lessons because CLIL lessons considered more interesting **Generalist teacher** • endorsing CLIL • support– experience, knowledge, ideas to approach topics, feedback on lessons; suggestions; reassurance • support with parents • ownership of lessons: generalist’s not language teacher’s • disappointment at Portugal’s late response to innovation • concerns that content only taught in English • fear of student failure: deliberately limiting amounts of CLIL • flexibility– given more time • appreciation of lesson (dissemination of	**School community** • acceptance of school community • positive attitude of school community towards CLIL project • familiarity with and trust in language teacher **Parents** • interest • approval • early scepticism • overcoming doubts through practice • changing views about English in the primary curriculum • parental appreciation (questionnaires) • positive attitude of school community towards CLIL project • learning about CLIL through children’s comments on learning • support for continuation of project **Generalist teacher** • early scepticism • impressed by methodology, technology and materials • developed more positive view of English in primary schools • suggests extension to other subjects • facilitating the process • supportive • threats to jobs **Generalist teacher profile** • collaborative, open-minded • supportive

• practical ideas • advice about children • allowing observation of her lessons • observation and feedback on CLIL lessons • explanation of content • support: planning, materials, observation and feedback • listening to and sharing ideas, giving opinion • support with parents **Learners** Expressed: • excitement; motivation; enthusiasm **CLIL teacher feelings about implementation** • advocates societal commitment over longer period to obtain results • concern about school community's understanding of CLIL • need to mention new pedagogy; scope around the world; advantages for students - motivation • anticipating difficulty with school community reaction to CLIL • overcoming difficulty through promoting advantages of CLIL • benefits for students: preparation for study and working life • increased motivation • improved language level as using language to learn and learning to use it • richer more meaningful context • development of thinking skills • thinking skills development difficult task for the teacher to prepare	photos in school blog) • helping to decide appropriate content for CLIL lessons **Learners** • language preparation: fairness to all students (those who do not attend language classes) **Lessons** Time constraints : • for the preparation of lessons, materials, reading/research • length of lesson too short • time: spending less time on language preparation Making English lessons redundant **Protocols** • need for protocols with schools to enable more and less intrusive CLIL **Teacher contact** • limitations of teacher contact with students inhibiting language development **School curriculum** • awareness of extent of curricular needs in this and later years **Costing CLIL** • expense of purchasing materials	**Language teachers** • improved status as a result of CLIL • extra workload • lack of training/ materials • limitations of contracts • low status of language teachers affecting implementation of projects **Lessons** • extending knowledge at home Time constraints • to conduct lessons **Understanding requirements for implementation** • concerns eradicated in practice • requirements and procedures; school community understanding of CLIL • implementation – acceptance of school community • generalist teacher support - impossibility of CLIL project without this **Constraints on implementation** • English not compulsory in primary schools • low status of English language teachers in primary schools • collaboration between generalists and English language teachers – 'interference' in work • possible threat to generalist teacher's pride and position if language teacher is successful • no financial gain for English language teachers

Appendix 27. Questionnaire for parents about the CLIL projects (post-experience)

CLIL PRIMARY PROJECT 2010 – 2011
Social studies through English
School ……

Questionnaire for parents

In this project a small number of lessons from the area of Social Studies were given in English. The content of these lessons was decided on by the generalist teacher and the English language teacher. The lessons were given by the English language teacher in the presence and with the full cooperation of the generalist teacher.

1. Did you have any concerns before the project began? Please circle Yes No
If yes, what were they?

____

____

2. Did any of these concerns become reality? Yes No If yes, how?

____

____

3. Did your child talk to you about the CLIL lessons? Yes No

4. What do you think of your child's work and the activities they were involved in?
Very good good satisfactory not good

5. What is your overall impression of the project?
Very good good satisfactory not good

Comment (optional)

____

____

6. Would you like this kind of work to be continued? Yes No Not sure

Comment (optional)

____

____

7. Would you like to view some of the CLIL lessons? Yes No

Thank you very much for your cooperation.

Appendix 28. Generalists' final impressions of the projects

Generalist teacher from School R.

1. **Qual a sua opinião sobre o modo como o projecto decorreu?**

O projecto decorreu de acordo com as minha expectativas, dada a minha opção pelo trabalho de equipa e de projecto. Desde que estejam reunidas as circunstâncias ao sucesso: disponibilidade pessoal para a experiência, capacidade de trabalho, boas relações interpessoais e intrapessoais, cooperação em detrimento da competição.

2. **O que aprendeu com esta experiência?**

Relembrei o Inglês, enriqueci os materiais didácticos, aperfeiçoei as técnicas de trabalho de grupo, rentabilizei os tempos de trabalho.

3. **As preocupações que tinha no início tornaram-se reais durante este projecto?**

Iniciei o trabalho sem pré-conceitos, não senti qualquer preocupação, ou seja, deu-se forma às melhores expectativas.

4. **Notou alguma alteração nos seus alunos?**

Não senti alteração pois a metodologia proposta (CLIL) estava de acordo com a metodologia adoptada (Metodologia de Projecto), contudo sentiu-se uma grande cumplicidade entre a professora titular de turma e a professora de Inglês.

5. **Eles usam alguma palavra Inglesa nas suas aulas?**

Raramente.

6. **Acha que tiraram partido destas aulas? Como?**

Penso que sim. Aprenderam, problematizaram e avaliaram em Inglês.

7. **Modificou o modo como vê a disciplina de Inglês e a maneira como deve ser ensinado no 1º ciclo?**

Não, continuo a pensar que Inglês deve ser curricular, embora não seja nuclear, com um especialista em articulação com um generalista. O generalista tem uma preparação pedagógica acrescida, o especialista aprimora a disciplina. Só quem sabe muito, sabe simplificar, sem retirar a substância.

8. **Consideraria continuar com este projecto? Em que moldes?**

Sim, penso que deveria ter continuidade com os mesmos actores. Numa segunda fase dever-se-ia dar cumprimento ao projecto pedagógico proposto para a nova escola, integrando a 2º língua no tempo curricular. O projecto *Viver com Arte* explica todos os pontos fortes desta experiência, não dissimulando os possíveis inconvenientes.

9. Teria deixado mais alguém fazer esta experiência?
Sim, desde que em circunstâncias semelhantes: disponibilidade pessoal e profissional em termos pedagógicos e temporais.

10. Que melhorias poderiam ser feitas?
Tempo curricular seria o ideal, com possibilidade da divisão da turma em grupos permitindo suportes personalizados de reposta. Não sendo possível neste formato, para já, as melhorias acompanharão o processo regular de avaliação.

11. Tendo vivenciado esta experiência pode dizer o que é para si *CLIL*?
Tornar os alunos intervenientes no processo de aprendizagem; desenvolvimento das competências de pesquisa e da curiosidade científica, disponíveis para a problematização das questões e a resolução das situações problemáticas.

12. Como vai avaliar os seus alunos?
De forma descritiva.

13. Os pais vão ser informados?
Há uma informação regular aos Encarregados de Educação;
Reunião geral no final do ano lectivo.

Generalist teacher from School C.

1. **Qual a sua opinião sobre o modo como o projecto decorreu?**
   Correu bem, embora tenha sido um pouco apressado. Devia de haver mais tempo.

2. **O que aprendeu com esta experiência?**
   Comprovei que os miúdos nestas idades têm capacidade de se adaptar facilmente a uma nova língua e a novas situações.

3. **As preocupações que tinha no início tornaram-se reais durante este projecto?**
   Eu não tive preocupações desde do início porque já a conhecia. E eu estava lá para o que fosse preciso. Além disso, as aulas foram programadas comigo.

4. **Notou alguma alteração nos seus alunos?**
   Não, a não ser o facto de os alunos ficarem sempre muito entusiasmados antes das aulas CLIL.

5. **Eles usam alguma palavra Inglesa nas suas aulas?**
   Não.

6. **Acha que tiraram partido destas aulas? Como?**
   Sim, adquirindo mais conhecimento da língua inglesa.

7. **Modificou o modo como vê a disciplina de Inglês e a maneira como deve ser ensinado no 1º ciclo?**
   Não. Eu sempre achei que os alunos deviam ter Inglês desde o 1º ano. Seja qual for o tema dado em Inglês, sempre achei importante a aprendizagem do Inglês. O que importa é o conhecimento da língua.

8. **Consideraria continuar com este projecto? Em que moldes?**
   Sim, mas mais planeado, sendo restruturada o programa oficial de modo a ser curricular.

9. **Teria deixado mais alguém fazer esta experiência?**
   Não, mas dependeria se conhecesse ou não a pessoa. Teria de ter uma relação mínima com os alunos.

10. **Que melhorias poderiam ser feitas?**
    O programa teria de ser reestruturado. Se o horário fosse normal seria melhor.

11. **Tendo vivenciado esta experiência pode dizer o que é para si CLIL?**
    É matéria de Estudo do Meio dada em Inglês.

12. **Como vai avaliar os seus alunos?**
    Com avaliações sumativas e formativas: fichas de avaliação.

13. **Os pais serão informados?**
    Claro. Levam sempre as fichas para serem assinadas.

Generalist teacher from School CD.

O convite para participar neste Projeto foi logo de início motivador. Não conhecia o Projecto, mas em conversa com a professora [Teacher CD], docente da disciplina de Inglês, achei que seria um trabalho enriquecedor e muito interessante, para os alunos.

Da minha parte não houve preocupações iniciais, mas alguns pais, na reunião de apresentação do Projeto CLIL, mostraram algum pessimismo e preocupação pelo facto dos conteúdos serem lecionados em Inglês e não adquirirem as competências em português.

Os conteúdos lecionados - graus de parentesco, partes constituintes de uma planta e suas funções, experiências com ímanes – foram selecionados, de acordo com o programa do currículo do 3.º ano de escolaridade, da área de Estudo do Meio.

Estas experiências completamente inovadoras, tanto para mim como para os alunos, mostraram ser um valioso contributo para a aquisição de competências, promovendo e facilitando o conhecimento através de outra Língua.

Em todas as aulas, os alunos revelaram-se empenhados e dispostos a realizar o trabalho proposto. Também é de referir que a professora teve sempre a preocupação em apresentar os

conteúdos de forma apelativa, usando materiais diversos que contribuíram para o cumprimento dos objetivos pretendidos.

A avaliação dos conteúdos lecionados foi feita em Inglês, nas fichas de avaliação trimestrais de Estudo do Meio. Os resultados foram muito positivos e os pais, nas reuniões de entrega do registo de avaliação e através de e-mail, mostraram o seu agrado face ao método de aprendizagem de outra Língua, integrado nos conteúdos escolares. Os pais referiram também que os seus educandos falavam das aulas com grande entusiasmo e aplicavam os conhecimentos na Língua materna. A preocupação inicial foi dissipada.

O contacto com este Projeto enriqueceu estes alunos ao nível da comunicação oral/escrita, utilização de vocabulário específico e capacidade de diálogo. A participação neste Projeto serviu para reforçar a minha visão quanto à Língua inglesa. Nesta faixa etária é muito importante o contacto com esta Língua, é a "Língua da globalização" e que estará com os alunos em todo o seu percurso académico e talvez profissional.

Continuarmos com este Projeto seria bastante positivo. Desta forma, existiria uma continuidade e os alunos ficariam com uma visão mais completa, face à Língua inglesa.

Penso que este Projeto poderia ser alargado às outras áreas disciplinares, nomeadamente À Matemática.

O CLIL é um Projeto que motiva os alunos, através da inovação para as aprendizagens presentes e futuras.

Appendix 29. Sub-categories and themes for 'Methodology'

LIST OF SUB-CATEGORIES FOR
DEDUCTIVE CATEGORY: METHODOLOGY

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
Intentions for Scaffolding • visuals • technology • repetition of main vocabulary/structures for oral communication • provision of support through language frames **Adjusting practice** • intentions to diversify methods • focus on content knowledge • adaptation of materials and content • to provide opportunities for natural language acquisition: (through 'real life' situations sharing own experiences, knowledge, thinking, experimenting, using language)	**Planning** • evidence of medium term planning/thinking about scope of content area and language preparation • complying with curriculum • appropriacy of aims • appreciating planning for cognition • suitability of strategies for scaffolding • difficulty articulating aims for 4Cs • difficulty articulating aims for communication: *language for, of , through* • consciousness of scaffolding strategies • consciousness of thinking skills • relevance - consciousness of how to explain content • appropriate choices of ideas and materials • appropriate degree of challenge • lesson preparation: research; lesson stage rationale; student preparation; language support; scaffolding cognition • appropriacy of lesson choices: sequencing; tasks and materials • learning by doing; group cooperation; progressive degree of challenge in lesson • using alternative methodology: experimenting • own thinking skills development • considering improvements to lesson stages/materials/interaction patterns	**Planning** • awareness of what is needed for planning for CLIL– aims, activities, scaffolding consideration of students' needs; interests; difficulties; appropriate methodology; articulation of objectives, content, strategies and evaluation; materials; interaction patterns; classroom environment • consciousness of how to explain; develop thinking skills • early preparation: reading about CLIL; consulting Estudo do Meio programme; talking to generalist teacher • awareness of content focus in CLIL lessons • awareness of planning teacher language • awareness of scaffolding strategies for language • awareness of balancing of linguistic and cognitive demands of tasks; of challenge • suitability of topics for CLIL lessons • diversifying methods to increase motivation • experimenting with methods • refining lesson plans • awareness of teacher language **Materials** • cognitively challenging materials and

	• understanding content • appropriate amount of content • prioritising lesson aims – focus on developing students' awareness of concepts **Delivery** **Strengths of lessons** • suitability of strategies for scaffolding (drilling) • acknowledging teacher talking time as necessity • role of the teacher/learner – learner-centred • justifying lesson stages – strategies to consolidate language and develop cognition • procedure to check learning of content and language • awareness of types and amounts of scaffolding • supporting language and cognition • importance of content • attention to learner understanding • interaction patterns: group work • appropriate level of challenge for learners • progressive degree of challenge in lesson • cognitive and linguistic demands of tasks and materials balanced • learning by doing; group cooperation • high level of challenge – abstract content • considering alternatives to increase level of challenge • understanding the need for hands-on experience • language, cognition, communication,	strategies to motivate and involve students in learning • understanding the importance of technology and realia

	cooperation within groups • checking previous content and linguistic knowledge; encouraging language use **Weaknesses of lessons** • some choices – causing use of L1 • level of challenge in lesson • understanding weakness in technique**:** too many new vocabulary items • overly focused on language • inappropriate scaffolding strategies • drilling • teacher talking time **Materials** • appropriate cognitive and linguistic demands in materials design • materials design – awareness of need for scaffolding in materials • appropriate materials: facilitated understanding of content **Weaknesses of materials** • overload(two tasks in one) • lack of clarity/confusion within materials	

Appendix 30. CLIL lesson plan by Teacher R (1st sequence of CLIL lessons)

CLIL Lesson Plan

UNIT: Growing Plants (**2. Plant Reproduction**) **TIMING:** 3 Lessons

SCHOOL: EB/JI (...) **CLASS LEVEL:** 3rd A

Aims
• To present the content of the unit; • To introduce the topic – plant reproduction; • To make learners aware of the different types of plant reproduction; • To make learners aware of what they already know about plant reproduction; • To help learners understand the different types of plant reproduction; • To help learners describe how to grow a plant;

Teaching objectives (What I plan to teach)			
Content • Types of plant reproduction • Understand how plants can reproduce • Understand how to grow a plant	**Cognition** • Enable learners to identify different types of plant reproduction • Lead learners to understand how plants reproduce • Let learners predict/ discuss what they need to grow a plant • Make learners distinguish between seeds, bulbs and cuttings • Vocabulary building, learning and using		
Culture	**Communication** **Language of learning**	**Language for learning**	**Language through learning**
• Identify plants that reproduce through seeds, bulbs and cuttings • To become aware that plants can reproduce differently • To become aware of the importance on the sun, water and soil in the process of growing a plant • Respect Nature and plants	• **Key vocabulary**: seeds, bulbs, cuttings, cabbage, parsley, tulips, iris, roses, daisies, plant, grow, soil, water, plant pot, sun.	• Discussing/ arguing/ predicting – *to grow my plant I need…/ I think my plant reproduces through…*	• Language needed to carry out activities and explanations; • Language to check results; • Language to carry out some worksheet tasks

Learning outcomes

(Learners will be able to)

- Demonstrate understanding of how plants reproduce
- Distinguish and discuss the different types of plant reproduction
- Carry out an experiment in group
- Describe how to grow a plant
- Use language creatively
- Use new vocabulary

Assessment Criteria

- Monitoring group and individual activities
- Learners' interaction with group
- Learners' participation in all tasks/ activities
- Learners fill in experiment register sheet
- Learners listen and number
- Learners complete sentences
- Learners order the steps

CLIL Lesson Plan

UNIT: Growing Plants (**2. Plant Reproduction**)

SCHOOL: EB/JI **CLASS LEVEL:** 3rd A

Lesson 1

Date: 5th November 2010 45 minutes

Stage **Time** **Interaction**	*Procedure* **(teaching instructions)**	*Learning aim*	Scaffolding strategies
Starting routine 10m Whole class	T. greets SS and asks them to settle down; T. and SS sing the classroom language song and afterwards T. calls the helper and asks him/her: *How's the weather, today?* *And today is…* SS sing the weather/day song while the helper puts on the poster the correct day and the weather.	Making learners aware that the classroom rules are to follow during the lesson	✓Sit down and calm down. ✓One, two, three, four no talking Portuguese anymore! ✓One, two, three sing with me. ✓Use gestures ✓Can you tell me… ✓Use a poster
Lead in 10m Whole class	*T. shows the SS three different pictures of seeds, bulbs and cuttings.* *T. presents the new words:* seeds, bulbs and cuttings. *T. explains that plants reproduce in different ways, some through seeds, others through bulbs and some through cuttings. T. asks:* can you tell me an example of a plant that reproduces through seeds? Do you know some?	Letting students distinguish between the three different planting items	✓Look at the pictures ✓Use visuals ✓Use gestures ✓Write words on the board ✓Point to the cards on board

	T. puts the pictures on the board, asks SS the name again and writes the correct name under each picture. *T. says:* some plants reproduce through seeds, others through bulbs and others grow from cuttings.		
Thinking activity 15m Group work	T. makes six different groups by choosing four SS in a row. T. says: *imagine you are going to grow a plant. For example, this group is going to plant a cabbage.* T. gives a picture of a cabbage to a group and gives the other groups pictures of the plant they are going to grow. While giving the pictures to the groups T. says the name of the plant out loud. T. asks a student from each group to say the name of the plant that group is going to grow: *can you tell me the name of your plant? What are you going to plant?* T. explains SS they are going to complete and experiment register sheet before doing the experiment. T. explains that SS have to think with the group what they will need to grow their plant. Then T. explains they are going to complete only the first part of the sheet: *you only need to pay attention to the first part of the register. Look and tick the things you need to grow your plant.* While SS are working in groups T. goes around each group to help them.	Making students aware of the vocabulary Checking if students know their plant Allowing students to cooperate and making them aware of what they think they know Making them discuss and predict what will happen	✓Repeat the words ✓Can you tell me the name of your plant? ✓Point to the pictures ✓So, you are going to plant… ✓Look, you only have to complete the first part of the register – *what I know* ✓If you need help, put your hand up ✓Move around and help

Final activity 10m Whole class	T. asks SS to stop and asks each group to present their predictions to the whole class. SS discuss and compare their ideas. T. explains that on Wednesday they are really going to grow those plants within the same group. T. asks SS to go back to their places, calms them down and says goodbye.	Sharing information and ideas Exposing their predictions	✓Five, four, three, two, one – stop! ✓One, two, three – listen! ✓Can you tell me what are you going to plant? ✓What do you need to plant… ✓Your plant reproduces through…

Appendix 31. CLIL lesson plan by Teacher CD (2nd sequence of CLIL lessons)

CLIL LESSON PLAN

TOPIC: Plants **TEACHER:**
SCHOOL: EB1 (...)
TIMING: 2 lessons of 60 minutes each
DATE: 22nd February, 2011
CLASS LEVEL: 3rd G

AIMS:

- To identify and classify the main parts of the plants
- To understand the functions of each part of a plant
- To name and identify different vegetables and fruits
- To identify and classify which part of a plant we eat

CRITERIA for ASSESSMENT

Teacher, peer- and self-assessment processes will be used to assess how well learners:

- Classify the parts of a plant
- Co-operate with his/her colleague
- Participate in all tasks and activities
- Identify different vegetables and fruits
- Classify which part of a plant we eat

TEACHING OBJECTIVES:

Content	Cognition
• To classify the main parts of the plants • To identify and classify which part of a plant we eat **Culture** To become aware of some plants and its functions To understand that people only eat particular parts of a plant, though it has many other parts	• Enable Ss to understand the basic structure of a plant • Use prediction to say what plants need to grow • Classify parts of a plant • Recalling previous Knowledge on plants • Applying vocabulary in context • Discussing to gain an understanding of the functions of a plant • Use prediction to say what parts of a plant we eat • Enable Ss to understand which part of a plant we eat

Communication

*Language **of** learning*	*Language **for** learning*	*Language **through** learning*
• Saying and identifying parts of the plants we eat; (roots, stem, leaves, flowers, fruits) • Identifying functions of the parts of a plant • Saying and identifying plants; (carrot, turnip, asparagus, broccoli, tomato, lettuce, onion, walnut, cabbage, leek, cauliflower, parsley, potato, sweet potato, pumpkin)	• Language to answer questions: *What's this?* *It's a stem/root…* *What do plants need to grow? Plants need…* *Which part of the plant do you eat?* *I eat the stem of the leek.*	• Identifying the parts of the plants we eat • Saying parts of a plant • Saying plants we eat • Saying which parts of a plant we eat

MATERIALS
• Computer, Powerpoint presentation, board, word cards, picture, worksheet, plants, scissors, glue
ANTICIPATED PROBLEMS AND SOLUTIONS
• Ss may find difficult the group work task because they will try to understand every word. T will help them by giving clear instructions. • Ss may have difficulties in reading the sentences and may not want to participate. T will help Ss with the words pronounciation and if necessary will call a Ss. • Ss may get too noisy during the group work/ pair work. T will have to monitor Ss' behaviour. • Ss may use Portuguese to participate. T will allow it and help them to rephrase it in English. • Ss may not know from experience what asparagus is. T will use pictures and take some real vegetables for Ss to see; • Ss may use only words and not the structure. T will provide the language on the slide show.
LEARNING OUTCOMES
By the end of the topic learners will be able to: • Say and identify parts of a plant; • Understand the functions of each part of a plant; • Classify vegetables and fruits according to the parts we eat;

Lesson nr. 1

Timing: 60 minutes

STAGE TIME INTERACTION	PROCEDURE	LEARNING AIMS	SCAFFOLDING STRATEGIES
Lead-in 2 minutes T-Ss	1. T presents a picture with several plants and asks Ss "*What are these?*". T elicits the answer from the Ss to introduce the topic "*Plants*".	*To introduce the topic of the lesson;*	The use of visuals to help Ss to guess the topic.
Introduction ***Thinking Task*** 5 minutes T-Ss	2. T asks Ss "*What do plants need to grow*? and elicits answers from Ss. T uses gestures to convey the meaning of "*grow*". Then T introduces the new vocabulary (soil, water, air, sun) and checks Ss understanding on plants growing. 3. T says "*Plants have different parts*" and asks "*What are they?*" and elicits answers from Ss. T introduces the parts of a plant and Ss repeat it.	*To check Ss knowledge on plants growing;* *To introduce new vocabulary;* *To check Ss previous knowledge on the parts of a plant;*	The use of questions to enable Ss to think. The use of pictures to support understanding.
Practice ***Thinking Task*** 15 minutes	4. T sticks a picture of a plant and asks several Ss "*What's this?*". Ss answer "*It's a stem….*" Then T	*To drill vocabulary;*	A picture on the board to support

T-Ss Group work	gives four Ss a word card with the part of the plant written. Each Ss stick it on the board. 5. T shows different parts of plants and asks Ss "*What's this? Is it a stem or a root?* and elicits answers from all class. 6. T says "*The parts of the plants have important functions*." and tell Ss they will work in groups to find out those functions. Ss do a worksheet. They fill in the blanks with the given parts of a plant, read the sentences, discuss it and match the correct option.	*To allow movement in the classroom;* *To practice the new structure and vocabulary;* *To check Ss understanding so far;* *To promote co-operation;* *To provide opportunities for Ss to discuss and think;* *To keep a written register of the vocabulary;*	learning. An exercise to check Ss understanding on plant parts. A group work activity to enable thinking time. An exercise to challenge Ss' level. A worksheet to provide a written example of the vocabulary and structures used.
Correction 7 minutes T-Ss	7. T corrects the exercise by asking "*What is the function of the roots/stem/leaves/flowers?*"and elicits answers from Ss. T shows them a slide show explaining the correct answer.	*To explain the functions of each part of the plants;*	The use of pictures to convey meaning;
Task 30 minutes Pair work	8. T explains Ss will work in pairs and shows them an example of what they have to do. Each pair will receive a plant and will stick it on a blank sheet. Then they will cut the sentences and the words given by the teacher and will label the plant.	*To check on Ss comprehension;* *To promote co-operation.*	To use a real plant to apply the concepts they have learned.
Contingency plan Individual work	If time to spare: T hands out a worksheet, where Ss have to label a plant, fill in sentences and do a crossword. If Ss don't have time to finish it, they will do it as homework.	*To check on Ss comprehension;* *To keep a written register of the structures and vocabulary;*	A worksheet to keep a written register of the structures and vocabulary.

Lesson nr. 2

Timing: 60 minutes

STAGE TIME INTERACTION	PROCEDURE	LEARNING AIMS	SCAFFOLDING STRATEGIES
Warm-up 2 minutes T-Ss	1. T presents a slideshow with different plants and asks Ss "What did we talk about last lesson?" and elicits answers from Ss.	*To recall knowledge from previous lesson;*	The use of pictures from last lesson to recall previous knowledge.
Revision 12 minutes T-Ss	2. T presents slideshows from the different parts of a plant and asks Ss "What's this?" and then asks Ss about the function of each part of the plant. Then T introduces the fruit as a new part of a plant. 3. T shows a slide with a plant and Ss have to say the different parts of a plant, including the fruit.	*To check Ss previous knowledge on the parts of a plant;* *To introduce a new part of a plant;*	To check Ss understanding on plant parts from last lesson.
Introduction 6 minutes T-Ss	4. T shows a slide with five pictures (a rose, a banana, a tulip, a lettuce and a carrot) and asks Ss "Do you eat a rose?", "Do you eat a banana?" and elicits Yes/No answer from Ss. T explains that we don't eat all plants, but only some parts of fruits and vegetables. 5. T presents pictures of several fruits and vegetables. T asks "What's this?" and elicits answers from Ss either in Portuguese or in English. 6. T gives Ss cards showing only a part of a plant. Ss have to guess what it is.	*To introduce the topic of the lesson "Parts of Plants I eat";* *To introduce new vocabulary;* *To provide opportunity for oral fluency practice;*	The use of pictures to support understanding; The use of cards to provide Ss opportunities to use the language of learning.
Thinking Activity 20 minutes Group Work	7. T shows a slide with the question "Which parts of a plant do you eat?" and some pictures and asks "Do you eat a daisy?"/ "Do you eat an apple?" 8. T explains Ss are going to work in groups. T gives each group a box with real fruits and vegetables. Ss have to analize them, identify the different parts of the plants. T gives also each Ss a worksheet where they have to write different sentences, for example, "I eat the stem of the leek" according to their conclusions.	*To check on Ss comprehension of the parts of a plant we eat;* *To promote co-operation;* *To provide opportunities for Ss to discuss and think;* *To keep a written register of the language of and for learning;*	A group work activity to enable thinking time. An exercise to challenge Ss' level. The use of real plants to increase motivation and meaning; A worksheet to provide a written example of the vocabulary and structures used.
Correction 10 minutes T-Ss	9. T asks several Ss to read what they have written and T corrects the answers using the Powerpoint slides. Any additional explanations will be given by the T at this point.	*To check on Ss understanding of the parts of a plant they eat;* *To allow Ss to use the language of and for learning orally;*	The use of slide shows to correct the exercise and provide further information.

Contingency plan 10 minutes Individual work	If time to spare: T hands out a book and a worksheet. Ss have to colour the plants, cut the plants and names and stick them on the correct part of the plant part. If no time: They can finish it at home.	*To consolidate Ss knowledge;* *To provide a fun activity;*	To consolidate Ss knowledge through a fun activity.

Appendix 32. Sub-categories and themes for 'CLIL vs. ELT'

LIST OF SUB-CATEGORIES FOR
DEDUCTIVE CATEGORY: CLIL vs. ELT

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
Differences • language type/use/role • lesson focus – language/content/language and content • teacher role • methodology – procedure, teaching strategies, activities • degree of challenge/cognition • lesson value • natural vs. artificial • language learning vs. acquisition **ELT** • language for language sake • focus more on language • learn how to use language • focus on structures (grammar) **CLIL** • learning by doing in real life situations • focus more on content: the content through the language and the language through the content • student oral articulation of content in CLIL (logical explanations) • cognition : using/developing more thinking skills • content defines the language • use language to learn **Similarities** • strategies to focus on language when introducing a topic	**Differences** • language type/use/role • lesson focus – language/content/language and content • teacher role • methodology – procedure, teaching strategies, activities • degree of challenge/cognition • lesson value **ELT** • language for language sake • focus on language and communication • more focus on language (structures, vocabulary, drilling) • more focus on pronunciation, drilling and repetition • avoidance of more advanced grammar usage • contextual limitations of language lessons – compensating by providing cross-curricular activities • low-level cognitive tasks • low-level challenge • no 'why' questions • not serious • fun activities and having fun • teacher-centred • no practical experiments • reinforcing/transferring subject knowledge not teaching it	**Differences** • language type/use/role • lesson focus – language/content/language and content • awareness of student abilities and interests **ELT** • language for language sake • filling in 'gaps' with own materials to enrich lessons **CLIL** • more aware of student abilities and interests in CLIL lessons • meaningful • contextualization • dealing with content and not just language • less overt grammar teaching **Influence on language lessons** • integrating more content from primary curriculum; • better contextualisation of language • dealing with content and not just language • more focus on thinking skills • more focused on getting the message across • coursebook used: little influence • used to a cross-curricular approach

	• applying content knowledge learned in L1 first to L2 lesson **CLIL** • language across the curriculum • less concern with grammar • scientific/academic language (CALP) • difficult for students to use academic language • importance of language in CLIL context • focus on content • content determines type of lesson • richer in content and more challenging • more meaningful • purposeful goals • potential scope of CLIL: everything can be taught • constraints of time • cohesion within lessons **Similarities** • making sure students have enough vocabulary • language for communication • some activities and games • use of same materials • both teach content • scaffolding strategies • linguistic and cognitive demands balanced • appealing, engaging materials **Influence of CLIL on language lessons** • consciousness of providing more ‘real’ content • integrating school subject content into language lessons • more conscious of scaffolding strategies • more attention to thinking skills	

	development • awareness that students are motivated by content • teaching content using CLIL approach • increased level of interest and meaning **Influence of ELT on CLIL** • insisting on language structures in CLIL • using language teacher strategies (drilling) **CLIL or ELT?** • language oriented primary content making CLIL lesson more EFL lesson • appropriacy of content for L2 lesson • choice of topic for CLIL: similarities with language lesson • language-orientation of CLIL lesson	

Appendix 33. Sub-categories and themes for 'ELT for young learners'

**LIST OF SUB-CATEGORIES FOR
DEDUCTIVE CATEGORY: ELT FOR YOUNG LEARNERS**

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
	Endorsing CLIL • fostering a CLIL approach: English as compulsory part of primary curriculum; collaboration with generalist teacher on CLIL topics and materials; comparative 'control' classes (CLIL and English language groups) to compare results • the need for change towards CLIL approach • the need for legislation • collaboration essential • inadequacy of language lessons: only vocabulary and games • integrating CLIL – the need for support from the school community • prioritising content areas from primary curriculum • prioritising language for communication **Supporting the early start of foreign language learning** • endorsing the early start for foreign language learning **Approach/methodology** • guided exercises • simple language • lots of oral practice	**Endorsing CLIL** • integrating more content from primary curriculum • better contextualisation of language • better collaboration • new awareness of other possibilities of teaching language • not just language for language sake **Approach/methodology** • importance of contextualisation • new ways of exploring topics: naturalistic learning • consciousness of planning – aims, activities, scaffolding

Appendix 34. Sub-categories and themes for 'Learners'

LIST OF SUB-CATEGORIES FOR
DEDUCTIVE CATEGORY: LEARNERS

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
Concerns about learners: • extent of learners' output • effective learning of content • evaluation of learners in Portuguese • learners' reactions: cognition and communication	**Learner attitudes to CLIL lessons** • interest • enthusiasm about lesson content • excitement • appreciation of experience • motivated • positive attitudes towards CLIL lessons • engaged in tasks • enthusiasm when participating • learner appreciation of teaching aids • negative criticism of other's thinking • enjoying learning by doing: combining abstract knowledge with concrete task • nothing special (early CLIL lesson) • lack of participation: passive ; lessons less fun (early CLIL lesson) **Needs** • for stimulating content • language preparation for CLIL lesson • support from substitution table **Use of L1** • use of L1 by learners during presentation of new content – teacher translation into L2 • use of L1despite having the language in L2 (comfort in using mother tongue) • understanding teacher input but responding in L1 because of lack of language	**Learner attitudes to CLIL lessons** • motivation • enthusiasm • enjoyment • appreciation of experience • initial concerns of learners about understanding content • motivation to learn English (to join non-compulsory English language class at school) **Achievements** • achievement of weaker learners • understanding of content • possibility for learners to learn regardless of language • ability to answer questions about content in English • ability to transfer learning to L1 context • students learn content regardless of the language • notion of same success as if with L1 • success in tests **Difficulties** • weaker learners' difficulties **Benefits** • learning 2 in 1

	Extending knowledge • sharing learning at home **Achievements** • understanding content concepts • understanding content and language – familiarity of content • ability to recall key content language • ability to understand and apply knowledge • understanding key content terms through similarity with L1 • understanding content and language – familiarity of content • working out meaning of new language • higher extent of student learning, participation, L1 use • success with challenging materials • ability to remember content language • coping with challenge • student learning despite obstacles such as noise • variety of cognitive skills • varying amounts of L2 language use: from word to structure • positive influence of realia on students' output • more use of L2 owing to substitution tables and visuals • success in written tests **Difficulties** • of weaker learners • confusing concepts • difficulty accomplishing task • difficulty understanding content in first lesson • lack of L2 for task	

	• understanding of content and language • difficulty with pronunciation • difficulty predicting; drawing conclusions • working out meaning of new language • difficulty understanding reason for experiment • lack of attention: following steps/listening to instructions and questions **Benefits** • transferring knowledge to everyday life • possibility for students to learn regardless of language • awareness of benefits of teacher reflection for learners	

Appendix 35. Sub-categories and themes for 'Teacher Competences'

**LIST OF SUB-CATEGORIES FOR
DEDUCTIVE CATEGORY: TEACHER COMPETENCES**

<table>
<tr><th>PRE-ACTION PHASE</th><th>ACTION PHASE</th><th>POST ACTION PHASE</th></tr>
<tr>
<td>Concerns about teaching competence
subject specific language
balancing the dual focus of language and content
facilitating learner communication
extent of learner output
demands on the language teacher: studying the content; planning appropriate activities
getting learners to communicate about the content
teaching content when learners don't know the language
teaching content without focusing primarily on the language
deciding on content to be taught
checking learners' understanding of content
Context restrictions
time allowed for lessons(finding the right balance between content and language within limited time available)</td>
<td>Acknowledging prior competences
language teacher credits
knowledge of learners' language level
considering language teacher competence as a solution to difficulties encountered
positive influence of own experience – planning activities
materials production
use of technology
Negative interference of ELT experience
conflicting use of strategies (drilling)
awareness of need to focus on language
overly concerned with language provision
fear of focusing too much on language in classroom
Methodology
planning: more time to plan; different from previous experience of planning for language lessons
awareness of need to focus on language for, of learning for learners to produce whole sentences
awareness of appropriacy of content for effective focus
difficulty articulating language of, for, through learning; articulating culture
difficulty predicting student language needs
language preparation of learners (drilling for correct pronunciation)</td>
<td>Acknowledging prior competences
experience of language teaching
understanding learners' language needs
contribution of previous experience in planning and preparing materials, activities
use of technology
confidence
Negative interference of ELT experience
constraints of language teacher experience - focus on language
Awareness of competences and needs to teach CLIL
awareness of competences required
teacher preparation – the need to study subject content
time needed for preparation/lesson delivery
provision of thinking time for students
Teaching aids and materials
appreciation of technology
choice and quantity of pictures
use of realia</td>
</tr>
</table>

	• awareness of need to improve thinking skills • awareness of need to develop cognition (with time) • appreciating complexity of content **Supporting learning** • scaffolding learner output (drilling) • awareness of need for and own attempts to use various scaffolding strategies • inconsistency of language frames for scaffolding • awareness of need to predict/support language • awareness of weaknesses in scaffolding and instructions • awareness of high degree of challenge when fewer scaffolding strategies • task demands – need for further scaffolding • awareness of potential of tool (powerpoint) as a teaching aid (scaffolding tool) • working through things with the learners **Teaching aids and materials** • awareness of potential of materials • trying new techniques: experimenting with technology • understanding the importance of realia • awareness of worth of own materials • variety of materials and activities to promote learning • cognitive and linguistic demands in tasks and materials • complexity of worksheets • weaknesses in materials design; – length of worksheets; confusing layout; task overload **Delivery of lessons** • awareness of delivery – motivating and encouraging participation	

<table>
<tr>
<td></td>
<td>
• need for clear and careful explanations
• awareness of need to improve instructions
• avoiding certain strategies (drilling) to check learners’ attention to language
• awareness of tendency towards certain strategies (drilling)
• awareness of use of gesture
• awareness of need to change route to help learner understanding
• too much TTT
• time management
• awareness of learners’ language need (providing and drilling language)
Learners
• awareness of learners’ language needs
• understanding learner strategies
• understanding learner cognition
• awareness of learner development
• higher degree of challenge for learners in CLIL lessons
• perception of learner understanding of difference between English language lessons and CLIL lessons
• noticing influence of scaffolding strategies on learners’ output
• awareness of need to give learners time to think
• awareness of need to allow learners to express themselves
• lack of language preparation for task
• awareness of the need to scaffold language input and output
• awareness of problems with learner output: articulating understanding orally
• misjudging learner ability to cope with lesson content
</td>
<td></td>
</tr>
</table>

	• not correcting pronunciation • the need to check learner understanding **Teacher language** • incorrect pronunciation • constant use of L2 by teacher • use of L1 as final resort to aid understanding **Classroom management** • monitoring • encouraging participation • managing noise • inappropriate interaction patterns :more learner-learner engagement • multi-tasking; interrupting own instructions. • managing time • constraining tasks to fit time • inability to manage time and task completion • difficulty organising class/independent learning • keeping learners on track • dealing with discipline and learners' criticism of each other's contributions **Strengths** • use of teaching aids • organisation and clarity of delivery • preparation for the lessons • enthusiasm; ability to motivate • remedying problems through examples • teacher use of L2 and awareness of learners' language needs • achieving lesson goals • preparing students for oral communication • understanding learning without language output • appreciating the complexity of some types of content	

	• awareness of need to encourage communication in L2 **Weaknesses** • lesson plan format – formulation of aims and scaffolding strategies • time for learners to answer questions • learner participation • little time for speaking • lack of knowledge of the subject • understanding and tolerating noise • scaffolding language and content in limited time • miscalculating time/number of activities • lack of clarity of instructions • multiple demands in tasks	

Appendix 36. Examples of tests incorporating CLIL

NOME:____ **PROFESSOR(A)**
ANO:___º **TURMA**:_______ **Nº**______ **DATA**:____/______/_______ _____________

1. **Indica a tua naturalidade:**

   freguesia____________ concelho____________ distrito___________

2. **A localidade onde vives é uma aldeia, uma vila ou uma cidade?**
   ____

3. **Escreve o nome da capital de Portugal.**
   ____

4. **Como se chama o país onde nasceste?** ***Where are you from?***
   ____

5. **Qual a tua nacionalidade?** ***What's your nationality?***
   ____

6. **Localiza e assinala no mapa o teu distrito.**

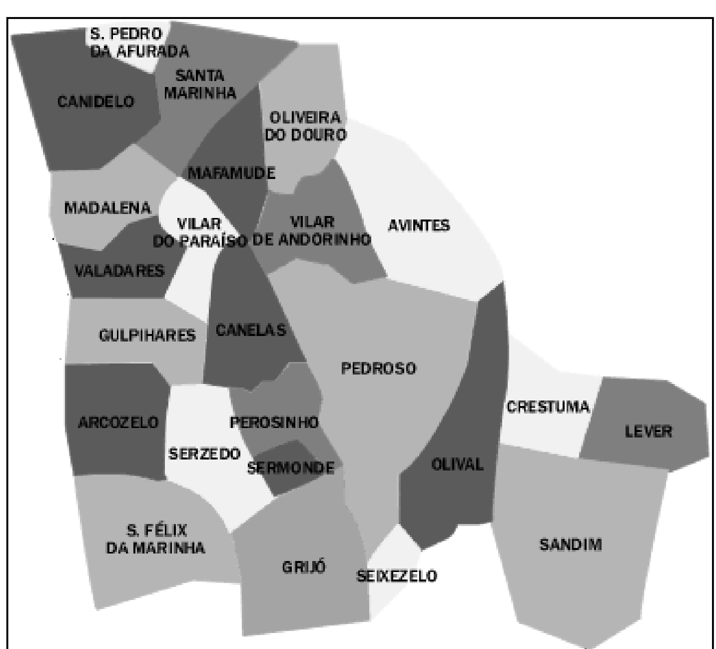
7. Assinala no mapa o teu concelho.

8. Diz quem são os teus concelhos vizinhos.

____

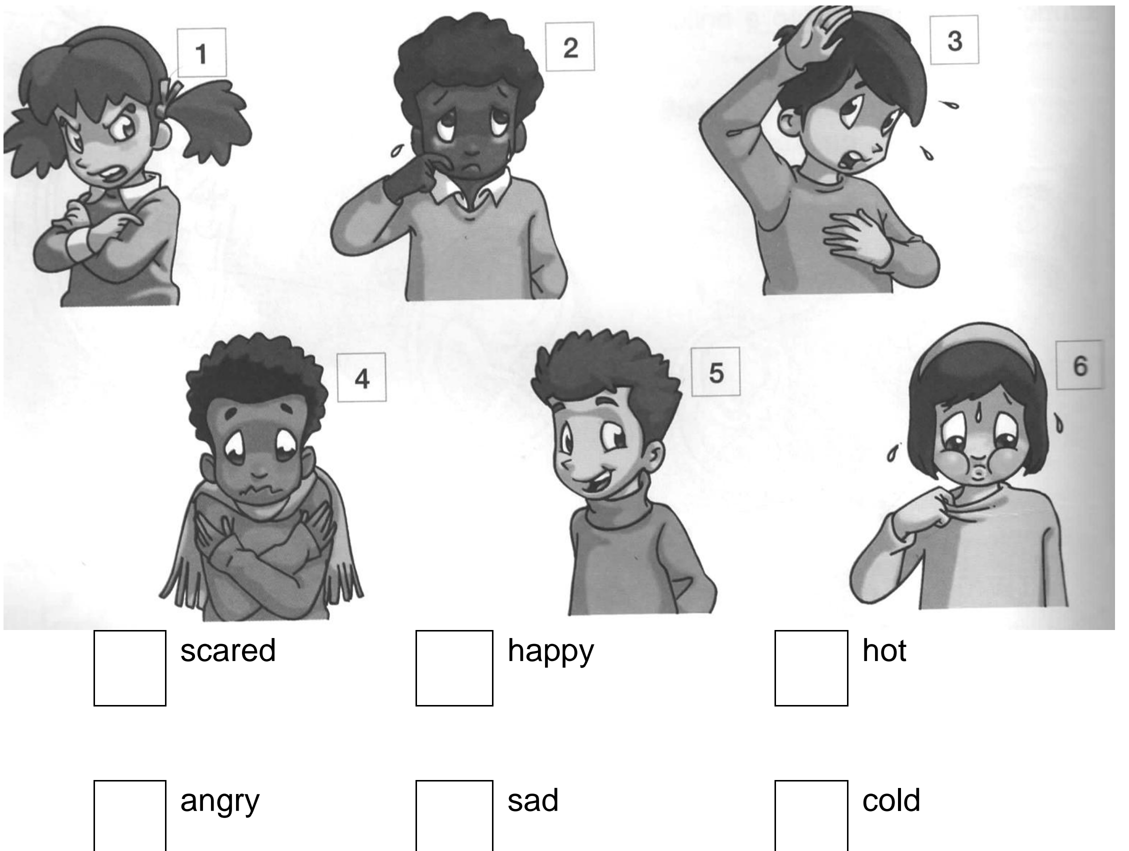
____

9. Assinala no mapa a tua freguesia.



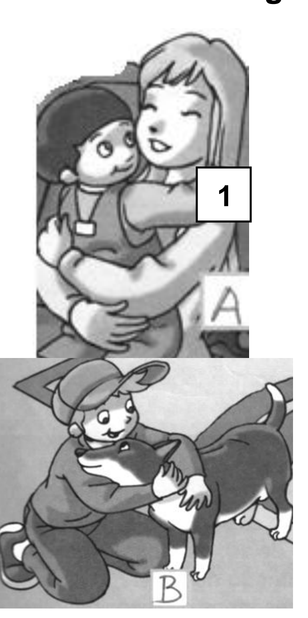
10. Desenha uma cidade, uma vila e uma aldeia.

11. **Observa as expressões dos rostos das crianças e escreve o número correspondente a cada sensação (*feeling*).**



	scared		happy		hot
	angry		sad		cold

12. **Liga as imagens às frases. *Match the pictures with the sentences.***

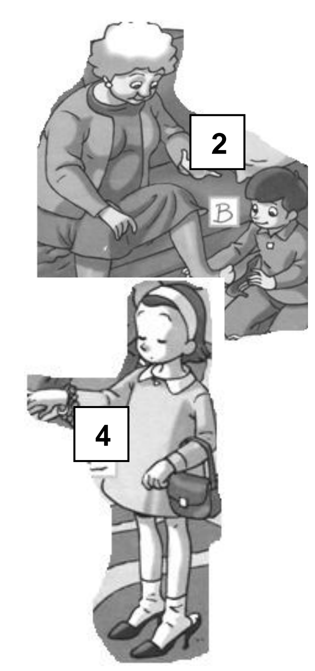


When I hug my mother I express my LOVE.

When I hug my dog I express my FRIENDSHIP

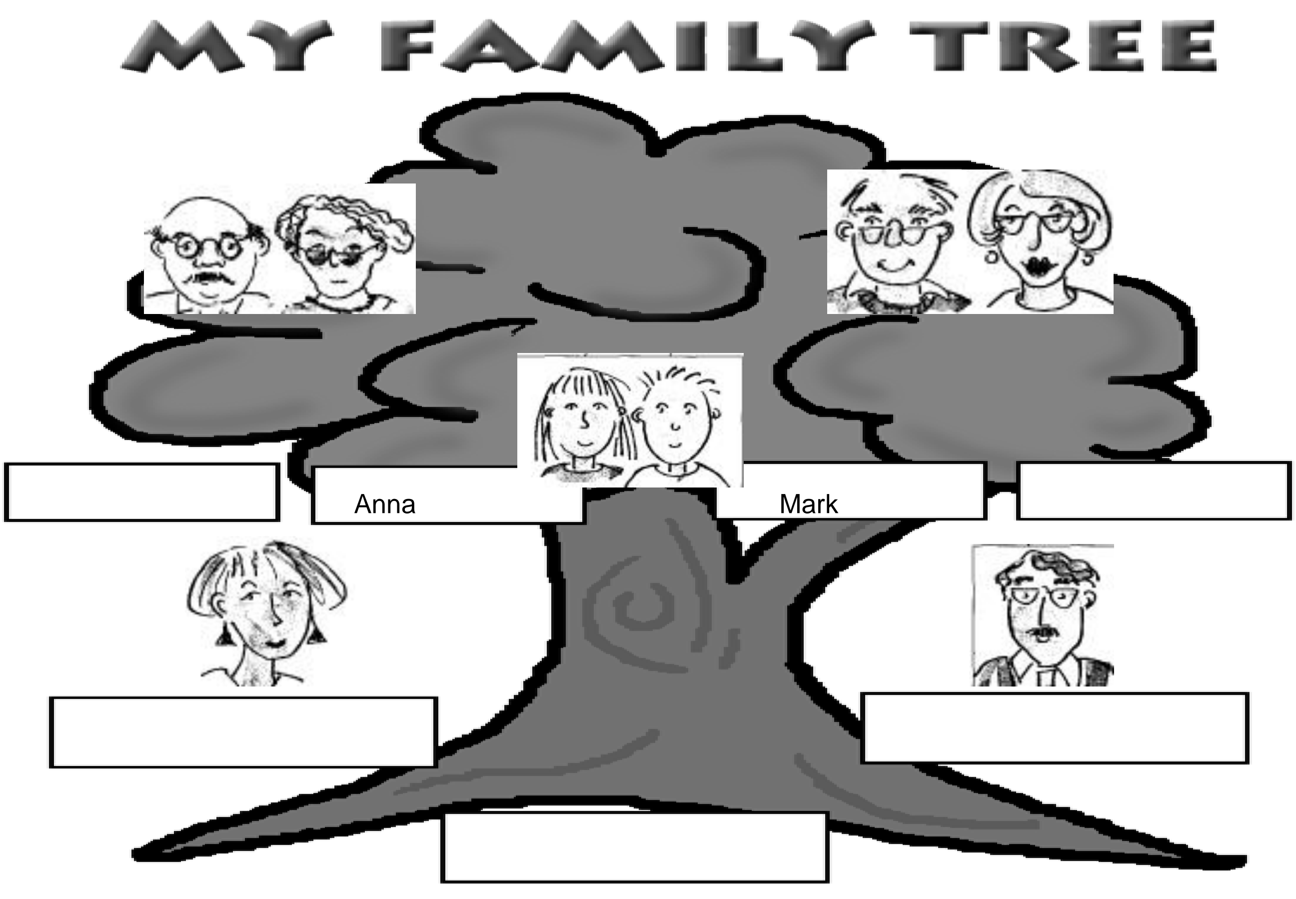
Showing off my bracelets is VANITY.

When I help my grandmother I show CARE.



13. Preenche esta árvore genealógica. ***Fill in this Family Tree.***

maternal grandfather – maternal grandmother – paternal grandfather – paternal grandmother - father



Liga a coluna da esquerda com a da direita. ***Match the left column with the right column.***

paternal grandfather	●	●	é o irmão do meu pai
maternal grandfather	●	●	é pai da minha mãe
cousin	●	●	é o pai do meu pai
aunt	●	●	é o filho do meu tio
uncle	●	●	é a irmã da minha mãe

Escola Básica EB1/JI de (…)
Ano Lectivo 2010/2011

FICHA FORMATIVA
DISCIPLINA: Estudo do Meio

NOME:____ **PROFESSOR(A)**
ANO:___º **TURMA**:________ **Nº**______ **DATA**:____/_______/_______ _______________

1. Where do these animals live?

DOLPHIN * CAMEL * MONKEY * SCORPION * FISH * BEAR

WATER **DESERT** **FOREST**

_____________________ ___________________ ___________________

_____________________ ___________________ ___________________

2. Match the definitions.

1. The water is
2. A habitat is a
3. The artic habitat is
4. The desert is

a) very cold.
b) place where plants and animals live.
c) cold and wet.
d) very hot.

3. Write the animals MOVEMENT.

Butterflies can_____________

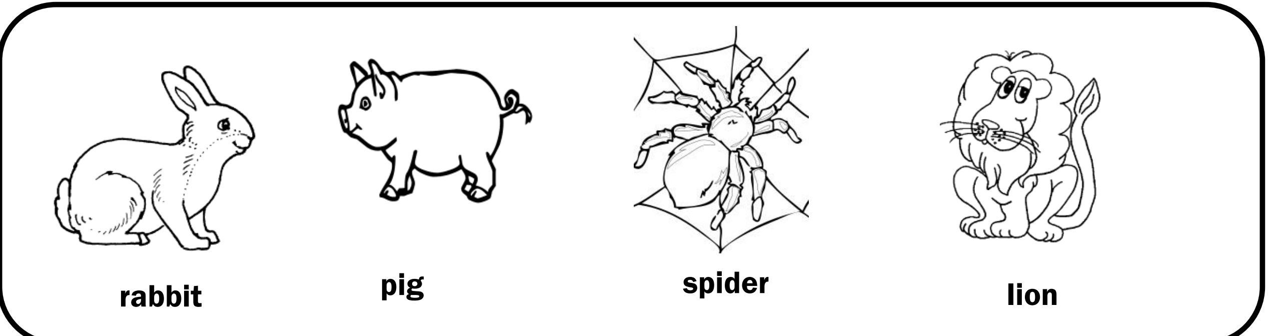
Kangaroos can_____________

Snakes can ________________

Whales can ________________

slither
swim
fly
jump

4. Look at these animals.

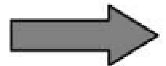


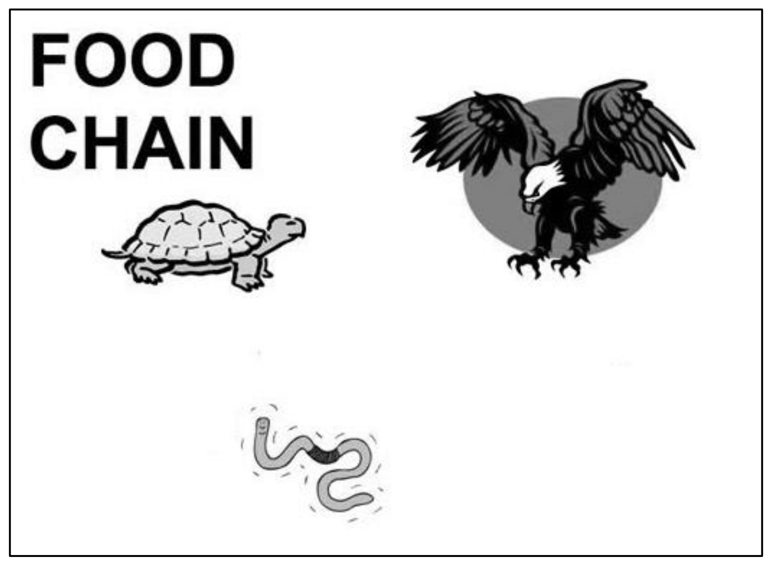
a. Which animal is a carnivore?____________________

b. Which animal is a herbivore?____________________

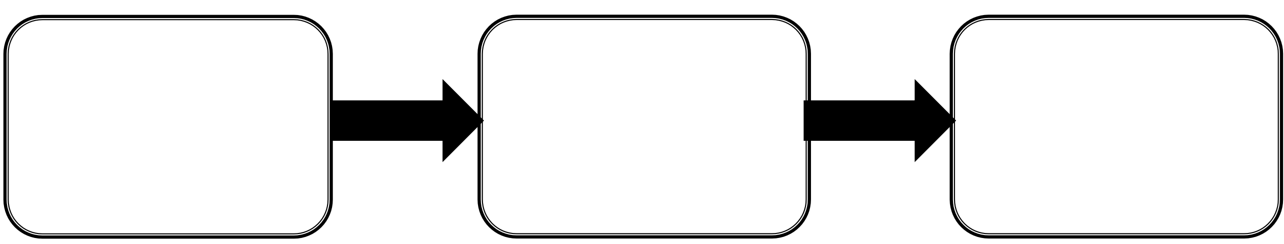
c. Which animal is an insectivore?__________________

d. Which animal is an omnivore?___________________

5. Complete this FOOD CHAIN. 



6. Draw ✍ your FOOD CHAIN.



Appendix 37. Sub-categories and themes for 'Personal and Professional Development'

LIST OF SUB-CATEGORIES FOR
DEDUCTIVE CATEGORY: PERSONAL AND PROFESSIONAL DEVELOPMENT

PRE-ACTION PHASE	ACTION PHASE	POST ACTION PHASE
Personal affective • excitement • challenge • anxiety **Skills development** • opportunity to learn about and apply new strategies and techniques **Obstacles** • dependency on support from context • school community's understanding of CLIL • skills/competence • time • the need to have more lessons to check success of work	**Personal affective** • rewarding/positive experience • welcome challenge • satisfaction • achievement • enthusiasm for own lessons • comfort in lessons; having fun • difficulty; dislike of content; pressure of time • frustration at students' use of L1 • frustration – when lesson didn't go so well • demands of lesson preparation: tasks and materials; cognitive demands; language; scaffolding strategies • admiration from other colleagues **Self improvement** • through new experience **Skills development** • own thinking skills development • learning new techniques and strategies • use of technology • influencing materials writing **Knowledge &Understanding** • better understanding of the role of language to explore themes • improved awareness of the importance of content • awareness of importance of communicating content regardless of what language used	**Personal affective** • great new experience • feeling proud • admiration from other colleagues • great effort required • worthwhile • rewarding **Self improvement** • new experience • growth as a teacher • knowledge and experience of CLIL has made her a better language teacher • progress as CLIL teacher • including CLIL teacher as part of professional identity **Skills development** • use of new tools – technology • techniques • influencing coursebook writing – choice of materials, strategies, activities, content **Knowledge &Understanding** • importance of collaboration • of alternative methodologies • of going beyond language teaching **Effect on practice** • providing thinking time • scaffolding strategies • more cognitively demanding tasks • learning and applying new techniques, strategies

	• awareness of need to contextualize language in language lessons • importance of integrating subject content in language lessons • importance of naturalistic approach • awareness of teacher and student language needed • purpose/usefulness of content of education • proximity to students; increased awareness of primary curriculum • CLIL teacher identity depends on context and lesson focus **Effect on practice** • trying to teach more than language • adopting naturalistic approach • more time spent on scaffolding strategies • more cognitively demanding tasks • providing thinking time **Future interest** • interest in continuing with CLIL	**Future interest** • current level of preparedness for future CLIL **CLIL as part of professional development** • necessity for teachers to have CLIL courses/experiences

Appendix 38. Types of reflection in lesson sequences Teacher C

TYPES OF REFLECTION: ACTION PHASE STUDENT TEACHER: C

KEY: P.O.D = Post observation discussion. W.R: Written reflection. M.R.T: Majority reflection type.

SEQUENCE 1.

LESSON 1		
FREQUENCY REFLECTION TYPE		
Post observation discussion	Written reflection	Majority reflection type
3x1	1x0 4x1 3x2	1

SEQUENCE 2.

LESSON 1		
FREQUENCY REFLECTION TYPE		
Post observation discussion	Written reflection	Majority reflection type
	2x0 4x1 1x2	1

SEQUENCE 3. (TWO LESSONS)

LESSONS 1 & 2		
FREQUENCY REFLECTION TYPE		
Post observation discussion	Written reflection	Majority reflection type
	2x0 3x1 4x2	2

SEQUENCE 4.

LESSON 1			LESSON 2			LESSON 3		
FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE		
P.O.D	W.R	M.R.T	P.O.D	W.R	M.R.T	P.O.D	W.R	M.R.T
8x1 11x2		2		1x0 1x1 3x2	2	4x2	2x0 4x2	2

SEQUENCE 5.

LESSON 1		
FREQUENCY REFLECTION TYPE		
P.O.D	W.R	M.R.T
4x2	3x0 2x1 1x2	2

MAJORITY REFLECTION TYPE PER SEQUENCE

SEQ 1	SEQ 2	SEQ 3	SEQ 4	SEQ 5
1	1	2	2	2

Appendix 39. Types of reflection in lesson sequences Teacher R

TYPES OF REFLECTION: ACTION PHASE STUDENT TEACHER: R

KEY: P.O.D = Post observation discussion. W.R: Written reflection. M.R.T: Majority reflection type.

SEQUENCE 1.

LESSON 1			LESSON 2			LESSON 3		
FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE		
P.O.D	W.R	M.R.T	P.O.D	W.R	M.R.T	P.O.D	W.R	M.R.T
1x0 4x1 2x2	7x1 5x2	1		8x1 1x2	1		1x1 2x2	2

SEQUENCE 2.

LESSON 1			LESSON 2			LESSON 3		
FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE		
P.O.D	W.R	M.R.T	P.O.D	W.R	M.R.T	P.O.D	W.R	M.R.T
	2x1 3x2	2		2x1	1	2x0 5x1 3x2	2x0 3x1 2x2	1

SEQUENCE 3.

LESSON 1			LESSON 2			LESSON 3		
FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE		
P.O.D	W.R	M.R.T	P.O.D	W.R	M.R.T	P.O.D	W.R	M.R.T
	6x1	1		1x0 3x1	1	2x2	1x0 1x2	2

MAJORITY REFLECTION TYPE PER SEQUENCE

SEQUENCE 1	SEQUENCE 2	SEQUENCE 3
1	1	1

Appendix 40. Types of reflection in lesson sequences Teacher CD

TYPES OF REFLECTION: ACTION PHASE STUDENT TEACHER: CD

SEQUENCE 1.

LESSON 1/2		
FREQUENCY REFLECTION TYPE		
Post observation discussion	Written reflection	Majority reflection type
	5x1 7x2	2

SEQUENCE 2.

LESSON 1			LESSON 2		
FREQUENCY REFLECTION TYPE			FREQUENCY REFLECTION TYPE		
Post observation discussion	Written reflection	Majority reflection type	Post observation discussion	Written reflection	Majority reflection type
3x1 3x2	3x1 5x2 1x3	2	1x1 1x2	1x0 4x1 2x2	1

SEQUENCE 3.

LESSON 1		
FREQUENCY REFLECTION TYPE		
Post observation discussion	Written reflection	Majority reflection type
2x1	1x0 4x1 2x2	1

MAJORITY REFLECTION TYPE PER SEQUENCE

SEQUENCE 1	SEQUENCE 2	SEQUENCE 3
2	1/2	1