

Content and Language Integrated Learning



Evidence from Research
in Europe

Edited by Yolanda Ruiz de Zarobe
and Rosa María Jiménez Catalán

Content and Language Integrated Learning

SECOND LANGUAGE ACQUISITION

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MULTILINGUAL MATTERS

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Library of Congress Cataloging in Publication Data

A catalog record for this book is available from the Library of Congress.
Content and Language Integrated Learning: Evidence from Research in Europe
Edited by Yolanda Ruiz de Zarobe and Rosa María Jiménez Catalán.

Second Language Acquisition: 41

Includes bibliographical references.

1. Language and languages—Study and teaching—Europe.

2. Language arts—Correlation with content subjects—Europe.

I. Ruiz de Zarobe, Yolanda. II. Jiménez Catalán, Rosa Ma. (Rosa María)

P57.E9C66 2009

418.0071'04—dc22 2009009453

British Library Cataloguing in Publication Data

A catalogue entry for this book is available from the British Library.

ISBN-13: 978-1-84769-166-8 (hbk)

ISBN-13: 978-1-84769-165-1 (pbk)

Multilingual Matters

UK: St Nicholas House, 31–34 High Street, Bristol BS1 2AW, UK.

USA: UTP, 2250 Military Road, Tonawanda, NY 14150, USA.

Canada: UTP, 5201 Dufferin Street, North York, Ontario M3H 5T8, Canada.

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Typeset by Techset Composition Ltd., Salisbury, UK.

Printed and bound in Great Britain by Short Run Press Ltd.

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Foreword

Like Antarctica, the field of teaching and learning in a second, or otherwise additional language, is claimed by many and yet still in the stages of exploration and discovery. From 1984 to 1994 increasing interest had been shown in the potential of forms of 'bilingual educational practice' in Europe and beyond. This was often cross-disciplinary. For some it was a matter of identifying 'coping strategies' for situations in which young people were required to study in a language that was unfamiliar to them. For others, interest was driven by the desire to improve the learning of languages. There had already been much discussion and debate on issues of language policy in different parts of the world, but this was alongside a serious lack of attention given to the methodologies by which to implement such policies.

In 1994, after a long period of analysis and negotiation, a group of experts working under the remit of European Commission funding, agreed on launching the term Content and Language Integrated Learning (CLIL). This term was adopted to articulate shared understanding of the commonalities of methodological practice found in diverse global 'bilingual' educational experiences. CLIL was defined as a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language.

CLIL was, therefore, introduced as a generic 'umbrella' term to describe those features of operational practice common to a wide range of variants of bilingual education. Crucially, this term was to move away from focus on what we do in our teaching towards the methodological constructs of how we do this in our teaching. And at this time three things happened. First, the work of Jerome Bruner, Jean Piaget, Burrhus Skinner and Lev Vygotsky came under the spotlight in an effort to conceptualize the theoretical constructs involved. Second, available research evidence, the bulk of which came from Canada, was scrutinized in an attempt to find research-driven outcomes on methodological practice that could be applicable to different educational contexts. Third, anecdotal reporting of world-wide practice and outcomes from teachers and others was examined.

Globally, CLIL practice has often preceded research. The socio-economic and political forces that have driven the adoption of a second language as medium of instruction differ across countries according to development needs. However, they are frequently similar in relation to intended outcomes. After around 2000, one new development need frequently surfaced. It went beyond content learning and language learning, towards the modernizing of education to better suit the challenges of the Knowledge Society. This has involved shifting from fragmentation towards integration, and the subsequent creation of new approaches for teaching and learning. CLIL has been increasingly viewed as one type of such innovation.

Integration often means challenging the status quo. It means breaking former boundaries, inviting controversy, and especially in the case of CLIL, re-examining discipline-specific territories in education. This latter process has firmly put the spotlight on integration within the curriculum and placed demands on researchers and educators to show evidence of the outcomes expected from variants of CLIL practice. *Content and Language Integrated Learning: Evidence from Research in Europe* is a step in establishing an evidence-base for CLIL. In this book, the authors examine the processes and outcomes of CLIL practice through a predominantly languages perspective.

The chapters reflect shared current concerns in the language teaching sphere about the potential of CLIL in supporting, or otherwise challenging, language learning practice. These involve examining teacher capacity building, and evidence of specific instances of language development such as morphology, pronunciation and syntax, alongside types of pragmatic competence. These are real issues facing the languages profession during this period. Although there is 'no CLIL blueprint ready for export', the contexts described here, and the findings of research and enquiry, are relevant to those working in other settings where language and authentic content are combined in the curriculum.

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Introduction

YOLANDA RUIZ DE ZAROBÉ and
ROSA MARÍA JIMÉNEZ CATALÁN

Content and Language Integrated Learning (CLIL) is an approach to foreign language learning that requires the use of a second language¹ to practise content. In recent decades, CLIL has begun to be used extensively in a variety of language learning contexts in Europe, although in the past number of years increasing attention has been given to integrating language and content, partly due to the need to promote language development in different language educational programmes. Yet, CLIL is hardly a new phenomenon. Content-based approaches² to L2 instruction were first introduced in French immersion education in Canada and in North American bilingual language teaching programmes in the mid-1960s. In these immersion environments it has long been established that content-based language instruction works. The benefits of the Canadian immersion programmes have been extensively reported (see Navés, this volume, for an account of these programmes) and have stimulated interest in a method that addresses content and language learning as part of an integrated approach.

Since the early 1990s European Union (EU) language policies have shown a growing need to adopt an educational model to account for the diversity of European programmes and to ensure that everyone can become proficient in several languages. As CLIL appears to comply with EU policies for multilingualism, it has been rapidly adopted as an umbrella term by the European Network of Administrators, Researchers and Practitioners. Their aim is to create a label for different European approaches to bilingual education. This has been reflected in the adoption of CLIL by EU institutions and the support given to a number of CLIL projects, studies and experimental initiatives as an integral part of foreign language teaching. Among these is the 2006 Eurydice Report that describes the state of the art in 30 European CLIL experiences. Nevertheless, the Eurydice Report also identifies questions that need to be addressed to consolidate CLIL as a coherent theoretical approach to language learning that can be applied in different educational conditions. One of the fundamental questions is whether CLIL can lead to ultimate attainment in the foreign

language faster and in a more articulated way than more traditional educational models. In this process, applied linguistic research on CLIL is necessary to account for the effectiveness of CLIL in the mastery of the foreign language.

This volume is intended to provide applied linguistic insight into CLIL, which has been somewhat scarce in Europe. The chapters in this volume have been conceived, first, to account for some theoretical and implementation issues of CLIL and, second, to offer current empirical research on CLIL in Europe.

The book is divided into two parts. The first part, *Theoretical and Implementation Issues of Content and Language Integrated Learning*, is devoted to theoretical and implementation issues related to CLIL.

In Chapter 1, 'Spanish CLIL: Research and Official Actions' Almudena Fernández presents the current state of research on CLIL both in bilingual and monolingual communities in Spain. She also examines the number and type of CLIL official initiatives being carried out at present mainly in Spanish monolingual communities at non-university levels. She concludes that applied linguistic research is needed to further explore the effectiveness of CLIL in terms of learners' L2 proficiency.

In the next chapter, 'Effective CLIL Programmes', Teresa Navés concentrates on common grounds in CLIL classroom methodology based on recent research evaluating CLIL programmes, along with research on the latest developments in language acquisition research and classroom teaching methodology. The author suggests that, as important as CLIL teaching methodology may be, it is just one among many other features efficient CLIL programmes have in common. The one feature that all efficient CLIL programmes share is that they provide greater and better exposure to the target language.

In Chapter 3, 'Developing Theories of Practices in CLIL: CLIL as Post-method Pedagogies?', Rolf Wiesemes analyses CLIL within a framework that links postmethod pedagogies (adapted from Kumaravadivelu, 2001, 2006) and the development of theories of practices (van Lier, 1996; Wiesemes, 2002), combined with a wide range of data drawn from the evaluation of the Content and Language Integration Project (CLIP) run at the University of Nottingham's School of Education. His discussion reveals that it is fundamental to the development of CLIL that theories and practices are jointly developed as part of a learned, non-dogmatic dialogue between CLIL participants, that is, learners, teachers, researchers and stakeholders.

Part 2: *Studies in Content and Language Integrated Learning* assembles nine analytical and empirical studies on CLIL, probing a wide array of applied linguistic issues.

Chapter 4, 'Testing the Effectiveness of CLIL in Foreign Language Contexts: The Assessment of English Pronunciation' by Francisco Gallardo

del Puerto, Esther Gómez Lacabex and María Luisa García Lecumberri focuses on the acquisition of pronunciation, comparing a group of students who follow a CLIL methodology (CLIL) and another group of English as a Foreign Language (non-CLIL) students by means of judgements made by individual listeners. The results generally show that CLIL students, who have received a more intensive exposure by means of the use of English as a vehicular language, are considered to have a more intelligible and less irritating foreign accent than regular students. However, in the case of degree of foreign accent, the authors do not find statistical differences between the two groups.

The next four chapters examine CLIL in relation to vocabulary knowledge and use. In Chapter 5, 'The Receptive Vocabulary of EFL Learners in Two Instructional Contexts: CLIL versus non-CLIL Instruction', Rosa María Jiménez Catalán and Yolanda Ruiz de Zarobe investigate the relation of the type of language instruction (CLIL versus non-CLIL) to receptive vocabulary in English as a foreign language by two communities with similar sociolinguistic characteristics but different language combinations. The results show a significantly better performance on the cloze and receptive tests of CLIL students over non-CLIL students, which not only point to a higher level on receptive vocabulary but also to a higher language level on the part of CLIL students. However, care should be taken in the interpretation of these results as the exposure to the language is more intensive in the CLIL group.

Chapter 6, 'Young Learners' L2 Word Association Responses in Two Different Learning Contexts' by Soraya Moreno Espinosa, describes the characteristics of the productive lexical profile of a group of Spanish learners of English at the end of primary education in two different learning contexts: CLIL versus non-CLIL. Results suggest that, although the kind of instruction seems to have a bearing on the type of responses elicited (lexical sophistication and richness), the differences between both groups of informants are less clear-cut than might have been expected. The author suggests that the method of instruction seems to have had a major effect on lexical depth, rather than on breadth of vocabulary. Hence, empirical evidence seems to demonstrate that the type of language instruction is positively related to vocabulary knowledge.

In her contribution, 'The Role of Spanish L1 in the Vocabulary Use of CLIL and non-CLIL EFL Learners', María del Pilar Agustín Llach identifies episodes in learners with different proficiency, amount of exposure and instructional approach to account for lexical transfer. The results indicate that non-CLIL learners produce significantly more lexical transfer errors than their CLIL peers. The most notable difference between CLIL and non-CLIL learners regarding types of lexical transfer errors is borrowing production. On the other hand, calques and coinages are more frequent in relative terms in the written production of CLIL learners. These findings

suggest that the lexicon of lower-level learners (non-CLIL learners in this case) is organized following formal, orthographic and phonetic principles, whereas more advanced learners tend to store words in the lexicon according to semantic associations. Routes of lexical access seem to be, therefore, influenced by the level of proficiency.

In her study, 'Themes, and Vocabulary in CLIL and non-CLIL Instruction', Julieta Ojeda compares the lexical choices made by students instructed in English by means of two different approaches: English as a vehicular language (CLIL) and English as a subject (non-CLIL). After identifying the most frequently used lexical fields (the four top positions correspond to identical lexical fields: school, sports, food and family), and the specific vocabulary implemented in each one of them, she postulates that variables such as the socioeconomic context may also have a fundamental influence on the acquisition of students' lexical competence.

Chapter 9, 'Tense and Agreement Morphology in the Interlanguage of Basque/Spanish Bilinguals: CLIL versus non-CLIL' by Izaskun Villareal Olaizola and María del Pilar García Mayo analyses the oral production of bilingual (Basque/Spanish) English learners distributed in a CLIL and a non-CLIL programme with regard to their production of tense and agreement markers. Their findings show that the participants do not have impaired categories or features, but, rather, a problem realizing them overtly or a problem with the acquisition of the language-specific rules governing the morphological marking of covertly moved elements. Regarding the overall performance of the two groups, the CLIL group outperforms the non-CLIL group in the production of affixal morphemes. Suppletive forms, however, are supplied in a parallel fashion, as expected if we assume that suppletion itself is UG-guided.

The next contribution, 'The Acquisition of English Syntax by CLIL Learners in the Basque Country', by María Martínez Adrián and M. Junkal Gutierrez Mangado also examines morphosyntactic data from Spanish/Basque bilingual learners of L3 English in two different types of exposure contexts: CLIL and non-CLIL. The results show that CLIL learners significantly outperform non-CLIL learners only in the use of placeholders. With respect to the other features investigated, namely the use of null subjects, null objects and negation, the authors find no statistically significant differences between both groups. Nevertheless, there is a tendency to minimize L1 effects in the CLIL group, given their higher tendency to avoid null arguments in general.

In Chapter 11, 'Communicative Competence and the CLIL Lesson', Christiane Dalton-Puffer analyses how communicative competence is embodied in CLIL classrooms. Her contribution examines how the different dimensions of communicative competence are actually found to be enacted in real CLIL classrooms. To do so, the four components of the Canale and Swain (1980) model – grammatical, sociolinguistic, discourse

and strategic competence – are discussed in the light of the overall results of a discourse analysis of 40 CLIL lessons taught in Austrian secondary schools in the years 2001–2003. The discussion shows that language learning and language use in CLIL settings takes place under the specific conditions of institutional educational discourse. The conditions of classroom talk necessarily impose restrictions on all aspects of communicative competence acquired and practiced in CLIL. The positive side of this restrictedness is that CLIL students can rehearse participation in L2-talk-in-interaction under simplified conditions because of their high familiarity with the context and its discourse rules. According to the author, this may in fact account for the commonly observed lack of speaking-anxiety in CLIL students.

Finally in Chapter 12, 'CLIL in Social Science Classrooms: Analysis of Spoken and Written Productions', Rachel Whittaker and Ana Llinares present an analysis of the spoken and written language produced by secondary school students and their teachers in CLIL social science classes. After studying several classes where students are just beginning their secondary education, the productions of the students can be seen to be moving towards the features of the language they need for success in the discipline. Furthermore, at least in fluency, these young students' written production is similar to that found in English language classes in the final years of schooling. The authors conclude that the efforts made by pupils and their teachers are giving them a good start on the road to improved achievement. This, according to the authors, justifies the CLIL approach.

The book is addressed to professionals, researchers, scholars and students interested in the field of second and third language acquisition in classroom contexts. It will also be of interest to language teachers, language planners, stakeholders and those involved in education departments. The volume focuses on research on CLIL in Europe with the aim of showing how the learning of foreign languages can be more efficient in formal contexts.

Acknowledgements

We wish to express our appreciation for the financial support provided for this research by the Spanish Ministry of Science and Technology through grants HUM 2006-09775-C02-01 and HUM 2006-09775-C02-02 and to the Department of Education of the Basque Government (IT-202-07), without which the work presented in some of these chapters would not have been possible.

We would also like to express our heartfelt thanks to the following colleagues for their helpful comments on the chapters included in this volume: María Luz Celaya, Jasone Cenoz, Batia Laufer, David Marsh, Tarja Nikula, Carmen Pérez-Vidal and Ute Smit. Thanks also go to Almudena

Fernández and María Pilar Agustín for helping to prepare the chapters in this volume for publication. All errors remain our responsibility.

Notes

1. The language in question may be a foreign language, a regional or minority language or even a second state language.
2. *Content-based instruction* (CBI) and *Content and Language Integrated Learning* (CLIL) can be considered synonymous. The former is used more frequently in the United States and Canada, while the latter has gained more popularity in Europe.

References

- Canale, M. and Swain, M. (1980) Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics* 1, 1–47.
- Kumaravadivelu, B. (2001) Toward a postmethod pedagogy. *TESOL Quarterly* 35 (4), 537–560.
- Kumaravadivelu, B. (2006) TESOL methods: Changing tracks, challenging trends. *TESOL Quarterly* 40 (1), 59–81.
- Van Lier, L. (1996) *Interaction in the Language Curriculum: Awareness, Autonomy and Authenticity*. London: Longman.
- Wiesemes, R. (2002) Developing my theory of practice as a teacher–researcher through a case study of CLIL classroom interaction. PhD thesis, School of Education, University of Nottingham, Nottingham.

Part 1

***Theoretical and Implementation
Issues of Content and Language
Integrated Learning***

Chapter 1

Spanish CLIL: Research and Official Actions

ALMUDENA FERNÁNDEZ FONTECHA

Introduction

Foreign language learning has traditionally been a weak point in Spanish education. The Eurobarometer survey conducted in 2005 on the Europeans' perceptions about their command of foreign languages reveals that only 36% of the Spanish respondents aged 15 and over replied that they were able to participate in a conversation in a language other than their mother tongue (European Commission, 2005). In other words, despite having received foreign language instruction throughout their schooling years, more than half of the Spanish respondents (64%) only master their mother tongue. The situation is even worse if we take into account that Spanish subjects do not belong to half of the citizens of the member states who can speak at least one language other than their mother tongue at the level of being able to have a conversation. Previous Eurobarometer surveys had not reported better results either (European Commission, 2001a, 2001b).

The current Spanish education is particularly sensitive to European initiatives. Mirroring the European language policy, Content and Language Integrated Learning (CLIL) or bilingual education is nowadays receiving increasing attention in Spanish education. Since the first attempts made to implement the most suitable CLIL models in different European education contexts, many lines have been written on this educational approach, many meetings of CLIL experts have taken place and a large number of conferences and workshops have been held across Europe. In the current CLIL literature, we find references of different origins. In the Canadian and American versions of CLIL, we should mention the works by Brinton *et al.* (2004), Cantoni-Harvey (1987), Celce-Murcia (1991) or Mohan (1986). In the European context, we should note, among others, the works by Dalton-Puffer and Smit (2007), Fruhauf *et al.* (1996), Marsh (2002), Marsh *et al.* (2001) and the Eurydice survey (Eurydice, 2006), which describes the

state of the art of European CLIL experiences. Mohan *et al.* (2001) describe the situation in countries such as Canada, England and Australia.

The main purpose of this chapter is to provide a up to date account of two different but interrelated issues of CLIL, namely, (1) the research conducted on Spanish CLIL or bilingual education both in bilingual and monolingual communities, and (2) the recent official Spanish initiatives that promote bilingual education or that include a CLIL approach to L2 learning at non-university levels in Spanish monolingual communities. Throughout this account, particular emphasis is placed on examining the situation in monolingual communities because they have been traditionally forgotten in bilingual education literature.

The Spanish Linguistic Map

Spain is a mixture of heterogeneous language situations that lead to different ways of understanding and managing L2 education. Its territorial organization is based on a system of autonomous communities. Apart from Spanish, some of these communities own another official language. This peculiarity gives way to language contact situations that enable a culture of bilingualism non-existent in the rest of the communities where Spanish is the only official language.

Spain is divided into 17 autonomous self-governing communities, further split into 50 provinces, and Ceuta and Melilla, two autonomous cities located in the north of Africa. In 1978, the language policy was made explicit in the Spanish Constitution through the following three points: (1) 'Castilian (also called Spanish) is the official Spanish language of the State; all Spaniards have the duty to know it and the right to use it'; (2) 'the other Spanish languages shall also be official in the respective self-governing communities in accordance with their Statutes'; and (3) 'the richness of the different linguistic modalities of Spain is a cultural heritage which shall be specially respected and protected'.¹ This provides us with the basis for better understanding the linguistic richness within the Spanish context, namely, Spanish is the only official language throughout the entire Spanish state; however, in some communities it shares that official status with other languages particular to those communities.

The latter is the case of Basque in the Basque Autonomous Community (BAC)²; Catalan mainly in Catalonia, although a variety of it is spoken in the Valencian Community and the Balearic Islands; Valencian in Valencia, and Galician in Galicia.³ The speakers of these languages make up 13 million people, almost 34% of the Spanish population (Turell, 2001). However, from a sociolinguistic approach, the Spanish linguistic map may become more complex. This approach includes aspects such as the language's official status, its presence in the media, learners' knowledge and use, its social prestige and presence in teaching, among others (Burgueño, 2002).



Figure 1.1 Simplified version of the Spanish linguistic map. Adapted from http://commons.wikimedia.org/wiki/Image:Spain_languages.png (retrieved 25 February 2008)

Besides, the complexity of this picture increases if we take into account the new migrant minorities. From being traditionally a migrant country, in the last two decades Spain has become a permanent destination for many people. Figure 1.1 displays a simplified version of the current Spanish linguistic map.

Research on Spanish bilingual education

Bilingual communities

The linguistic situation in Spanish bilingual communities is the usual scenario for research done on bilingualism, multilingualism and bilingual or multilingual education (e.g. Huguet, 2004; Huguet *et al.*, 2008; Pérez-Vidal *et al.*, 2007). A large body of literature is found on aspects of bilingualism and multilingualism not necessarily linked to education (Hoffmann, 1995; Siguán, 1992, 1994, 2007; Turell, 2001). Far from being a homogeneous phenomenon, Spanish bilingual education is a many-sided issue: different bilingual instructional models are designed that depend on the particularities of each area. Spanish education is decentralized and educational powers are transferred to the autonomous communities. This fact gives rise to a great deal of variation in the educational plans devised

by each community. For an updated account of the particularities of Spanish bilingual education, see Rodríguez-Yáñez *et al.* (2005) and Turell (2001).

The Basque Country and Catalonia are two main exponents of a multilingual awareness-raising process in Spain. In recent years, a large number of language research groups have proliferated in both contexts. The REAL Group (*Research in English Applied Linguistics*), which has obtained the status of 'Consolidated Research Group' granted by the Basque Government, covers a great deal of the research done in the Basque Country. On the other hand, the research conducted in Catalonia is shared by different groups. Some of the most prolific are the BCN-SLA Research Team, coordinated by Carmen Muñoz; AICLE-CLIL BCN European Project, coordinated by Carmen Muñoz and Teresa Navés; the consolidated group ALLENCAM (*Language Acquisition from Multilingual Catalonia*), coordinated by Carmen Pérez-Vidal; *Grupo de investigación sobre plurilingüismo, interculturalidad y educación*, coordinated by Àngel Huguet; the GREIP research group (*Grup de Recerca en Ensenyament i Interacció Plurilingües*), coordinated by Lucila Nussbaum Capdevila or the CLIL-SI research group (*Semiimmersió en Llengua Estrangera a L'aula Inclusiva*), which have developed the ARTICLE project (*Avaluació de tasques col·laboratives i assoliment d'objectius d'aprenentatge en aules 'AICLE'*), and is currently working on the MFP project (*Model de Formació del Professorat*), both coordinated by Cristina Escobar Urmeneta. The research production of these groups is so extensive that to provide a full account of it and its results is completely out of the scope of this chapter. Instead, the following lines are but a representative sample of the variety of works published by them and other researchers in these communities.

Among the contributions on bilingualism and multilingualism in the Basque Country, we find studies dealing with the age factor and its relation to foreign language learning within bilingual communities (García Mayo & García Lecumberri, 2003; Ruiz de Zarobe, 2005), studies on different aspects of trilingual education such as Almgren and Idiazabal (2001), Cenoz (1998, 2001, 2003, 2005), Cenoz and Valencia (1994), Gallardo del Puerto (2005) and García Mayo and Lázaro (2005). Many studies by Lasagabaster (2000, 2001) are on aspects related to the educational system in the Basque Country, and to attitudes towards any of the languages learned (Lasagabaster, 2004, 2005, 2007).

Some recent studies by this research group have focused on assessing CLIL and non-CLIL learners' proficiency in specific L2 areas. Although in most cases the results indicate no substantial differences in the performance of CLIL and non-CLIL students, in general, when some differences are detected, the results seem to be slightly better for the group of CLIL learners. In these studies, the CLIL and non-CLIL groups consist of Spanish/Basque bilingual secondary learners of L3 English. Both groups

had started their exposure to English at eight years of age; however, the CLIL group had received some additional exposure to English as L3. The most favourable results are those obtained by Martínez and Gutiérrez (in this volume), who investigated morpho-syntactical aspects. The CLIL learners outperform the non-CLIL learners only partially in the research conducted by Villarreal and García Mayo (in this volume) on the acquisition of tense and agreement morphology. Finally, Gallardo del Puerto *et al.* (in this volume) find no significant differences between the two groups of CLIL and non-CLIL learners concerning the acquisition of pronunciation.

As in the Basque Country, in Catalonia, many research projects are devoted to bilingual and trilingual education, such as Muñoz (2000) and Navés *et al.* (2005). Bosch and Sebastián-Gallés (2001) examine Jürgen Meisel's *Differentiation Hypothesis* in the case of young Catalan-Spanish bilinguals. Besides, Catalan linguistic immersion is analysed in different publications, such as the pioneering work by Artigal (1991) or the recent work by Serra (2006). Moreover, we find comprehensive works dealing with both cases of Catalan and Basque immersion, such as Artigal (1993) and Hugué (2004), who discusses the legal bases and social context for language learning in both contexts. As in the Basque case, some authors in this context refer to affective factors. Bernaus *et al.* (2007) analyse the influence of the affective factors that influence plurilingual students' acquisition of Catalan in that bilingual context. In addition, in Catalonia, we find pioneering CLIL-specific contributions, such as Navés and Muñoz (1999), Pérez-Vidal (1998, 1999, 2001) or Scott-Tennent (1993, 1994–1995, 1996). Part of these publications addresses practical aspects of CLIL implementation (Escobar, 2007; Escobar & Pérez Vidal, 2004; Pérez-Vidal, 1997; Pérez-Vidal & Campanale Grillon, 2006).

Research on bilingual education in other communities with more than one official language has received less attention, but some studies can be found: for instance, Cajilde (1991) and Marco (1993) focus on Galician. On Valencian, there is a wide variety of works dealing with these topics. To mention just a few, there is Safont's (2005) discussion on sociolinguistic aspects of language learning and use in the Valencian community, the research conducted by Blas (2002) referring to the Valencian educational system and the community's language policy and Baldaquí's (2000) doctoral dissertation on bilingual education programmes in the province of Alicante. The case of the autonomous community of Navarra presents quite a complex linguistic situation, which is described in *Actas de las Jornadas de Lenguas Extranjeras* (Gobierno de Navarra, 1999).

Some research has also been conducted in communities affected by some type of linguistic contact between languages that are not necessarily official. This is the case of Aragonese in the north of Aragón (Broc *et al.*, 1994; Hugué, 1994; Hugué & González, 2003; Janés & Hugué, 2000). Fewer studies can be found concerning multilingual education in these

communities with a language contact situation, an example of which is the work by Hugué *et al.* (2004) who describes a model of trilingual education in the Aran Valley.

Monolingual communities

As regards the monolingual communities, fewer studies are found. We shall consider the research conducted in at least two of these communities: Madrid and La Rioja.

In Madrid, we should address the research carried out by a team of professionals at the University of Alcalá. Their work focuses on bilingual education in primary schools of their community. So far, this research has mostly explored teacher-related issues, such as teachers' expectations and teacher training (Fernández *et al.*, 2005; Halbach *et al.*, 2005; Pena *et al.*, 2006). In the same community, Martín White and Cercadillo (2005) present a project carried out during three school years in a comprehensive secondary school, where geography and history curricula are taught in English. Furthermore, Llinares and Whittaker (2006) conduct their research on oral and written production of CLIL secondary students of social science in English. Overall, they are obtaining promising results. In the same context, we should include the work by Dafouz (2006) on the teacher's use of pronouns and modal verbs in a CLIL university level.

In La Rioja, Rosa María Jiménez Catalán coordinates the Applied Linguistics research group GLAUR (Grupo de Lingüística Aplicada de la Universidad de La Rioja). This group is currently working with members of the REAL group at the University of the Basque Country in a coordinated project granted by the Spanish Ministry of Education and Science. An important part of this research is concerned with aspects of lexical competence of learners in contexts where English is a subject versus contexts where English is a vehicular language. These studies make use of content-based learners of the Basque Country. Overall, the results that are being obtained are better for the content groups of students in different regards, although some negative evidence is also detected. Jiménez Catalán *et al.* (2006), for instance, attempt to ascertain whether there are any differences between the vocabulary produced by CLIL and non-CLIL primary learners. Overall, the results are better for CLIL learners. In the same line, Agustín Llach (in this volume) investigates lexical transfer in the written production of both a content and a non-content group of Spanish primary learners of English, and she reports that while non-content learners produce more examples of borrowings than coinages, and calques, similar proportions of lexical transfer types are found in content learners. In this line, in exploring the effect of content and non-content instruction on the use of reiteration ties, Agustín Llach and Jiménez Catalán (2007) conclude that, although both groups resort to word repetition rather than to other devices, content learners perform slightly better with regard to lexical

variation, language level and use of antonyms and general nouns. Less positive results in the GLAUR group are also provided by Moreno (in this volume). This study on the productive lexical profile of a group of Spanish young learners of English as a foreign language in a CLIL and a non-CLIL setting reveals that the differences between both groups 'are less clear-cut than might have been expected'. In view of the variety of results, it is obvious that further research is needed to determine more precisely the long-run effect of CLIL instruction in these settings.

In addition to these contexts, we should stress the situation in Andalusia. The *Plurilingualism Promotion Plan* in this community is one of the most important policy actions supporting bilingual/multilingual education (see below) in a monolingual setting (Madrid, 2005, 2006; Ramos, 2007). Under the advent of this plan, Andalusia becomes the perfect context for future research in CLIL aspects.

Apart from this research activity, we should mention the description of the Spanish bilingual state of the art provided by the 2006 Eurydice survey (Eurydice, 2006). The analysis focuses exclusively on unfolding the situation of the CLIL provision in bilingual communities excluding a closer analysis of the situation in monolingual communities, with the exception of Madrid and the special case of Navarra.

Finally, we should also note that CLIL is also being introduced in the area of Spanish as a foreign language (ELE: Español como Lengua Extranjera). Here, we should include Trujillo's (2005) work, which deals with the implementation and evaluation of ELE in a CLIL setting, and the research conducted by Llovet's (2007) on the needs noted by ELE teachers in Spanish sections in Italia and bilingual sections in Poland.

CLIL official initiatives

As stated above, the second aim of this chapter is to report on the recent status of official Spanish actions promoting bilingual education or initiatives including some type of CLIL provision, particularly in Spanish monolingual communities at non-university levels. Both public and semi-public (or state-funded) schools are included (whereas public schools belong to the state and provide free education, semi-public are only partially funded by the state, they follow the same calendars, rules and programmes as the public schools, albeit they charge an additional fee for extra-curricular activities). Different sources have served this purpose: the BOE (i.e. the official state journal), the regional educational governments of monolingual communities, which either through their websites or personal communication via email have provided us with data on this topic, and personal communication via email with experts in the field.

To begin with, we shall provide a brief note on the structure of non-university Spanish general education system and the novelties of the

current education law regarding foreign language teaching. The non-university Spanish general education system consists of four levels, namely:

- (1) Infant education: first cycle (0–3 years old) and second cycle (3–6 years old).
- (2) Primary education: first cycle (6–8 years old), second cycle (8–10 years old) and third cycle 10–12 years old).
- (3) Compulsory secondary education: first cycle (12–14 years old) and second cycle (14–16 years old).
- (4) Post-compulsory secondary education: baccalaureate and vocational training's intermediate-level training cycles (16–18 years old).

Like the past Organic Law on the Quality of Education (LOCE) (BOE, 2002), the LOE (BOE, 2006) maintains the early introduction of a first foreign language in the second cycle of infant education. Among the most significant innovations, the LOE establishes that in compulsory secondary education learners must choose three different subjects out of the available eight, that is, the five subjects included in the LOGSE (Organic Law of General Organization of the School System) (BOE, 1990) and three more subjects, among which there is a second foreign language. In article 157, the current law refers to the establishment of programmes focused on reinforcing foreign language teaching. Moreover, as the law states, teachers doing instruction through a foreign language in bilingual centres will be particularly rewarded.

In this legal context, the different Spanish communities have been developing a series of projects and programmes addressing innovative ways of language education. Pérez-Vidal (2002) provides a similar account of the CLIL programmes available in the year 2002. We should note the ever-increasing number of CLIL policy actions in these years. The following lines intend to provide an account of the type of initiatives run mainly in Spanish monolingual communities.

The Spanish Ministry of Education and the British Council Project

In the academic year 1996/1997, the MEC and the British Council initiated a joint bilingual project to provide children from ages 3 to 16 with a bilingual and bicultural education through the integration of the Spanish and English curricula. After this, students were able to choose their education either in the Spanish or in the British system up to 18 years old.

The list of autonomous communities involved in this project (including the two autonomous cities of Ceuta and Melilla) is as follows: Aragón, Asturias, the Balearic Islands, Cantabria, Castilla y León, Castilla La Mancha, Ceuta, Extremadura, Madrid, Melilla, Murcia and Navarra. Only two communities with some bilingual sectors in the population, such as the Balearic Islands and Navarra, take part in the project. The rest are traditionally monolingual communities. In the selection of schools, economically disadvantaged areas have priority.

In this project, the responsible organ for organizing the curriculum is the Ministry of Education and Science, not the Spanish regional governments. The British Council provides support in areas such as teacher development, curriculum and assessment. The candidates are interviewed by a joint Spanish and British Board. They need to be EU nationals and/or have a valid Spanish residence permit, have a native or near-native command of both spoken and written English, have a recognized degree in the content subject and recognized European Qualified Teacher Status in secondary teaching and should have had classroom experience with children between 12 and 16 years old.

Programa de Inmersión Lingüística (Language Immersion Programme)

The Spanish language policy includes a series of summer courses for Spanish students. The Language Immersion Programme is just one of them. It is supported by the Spanish Ministry of Education and Science and it addresses students attending the last cycle of primary education and the first course of secondary education. The programme offers two types of grants to the selected students: (1) two-week summer camps whose activities are carried out in the English language, and (2) economic support for attending immersion centres, given to a selected group of students. The latter is offered as a complementary activity to the work done in the classroom.

PALE (Programa de Apoyo a La Enseñanza y el Aprendizaje de Lenguas Extranjeras) (Foreign Language Learning and Teaching Support Programme)

A number of 13 communities are involved in this project (four of them are bilingual): Andalusia, Aragón, the Canary Islands, Castilla La Mancha, Catalonia, Extremadura, Galicia, Murcia, La Rioja, Asturias, Castilla y León, Madrid and Valencia. The PALE programme aims to aid CLIL-engaged teachers in improving their competence in the foreign language. The programme favours the following teacher types:

- (1) Foreign language primary school teachers who obtained their degrees before 1997 and have not taken part in specific training of more than 100 hours in the last five years.
- (2) Infant school teachers, non-foreign language specialists, who are currently teaching at that level and take part in the early teaching of a foreign language. A CEF B2 level⁴ is needed.
- (3) Primary and secondary school teachers, non-foreign language specialists, who take part in innovative language programmes. A CEF C1 level is required.

This programme consists of 200 training hours in foreign language teaching to obtain a higher language competence level. Besides, as an integral part of the programme, teachers involved may participate in a two-week study visit abroad.

Aulas Europeas (European Classrooms)

This is a language and culture immersion programme in France and the United Kingdom. The project began in 1999 and it covers the totality of the Spanish territory. It is based on an agreement between the MEC and the French Embassy in collaboration with the French Institute in Madrid. The teachers addressed are infant, primary and secondary teachers of any subjects, with the exception of French and English, who need to be competent in these languages when taking part in European education projects. These teachers must not have surpassed EOI (Official Language School) second-grade requirements.

*PILC (Proyectos de Innovación Lingüística en Centros)
(School Language Innovation Projects)*

The project started in the autonomous community of La Rioja in the academic year 2004/2005. It addresses non-university teachers of any subject who are willing to implement some CLIL-like model in their classrooms. Two modalities are offered: Type A, where the teacher only uses greetings or instructions in an L2 to communicate with the students; and Type B, in which part of the curricular contents are taught in L2. The languages involved in both types are English and French.

An essential requirement of the teachers involved in this project is to hold a CEF B1 level in the L2 or to have passed EOI third grade. With respect to the support offered to these teachers, several measures are pointed out: for example, the teachers may have a language assistant at their disposal, they may enrol for 15 days in a summer course in a foreign country, and, in alternate years, they may enrol in a part-time course for 15 days in the Official Language School, or register for some courses in a teacher-training centre. The teacher-training centre (Centro de Profesores y Recursos, CPR) is a public regional centre whose main function is to provide in-service teachers with guidance and assistance on a diversity of pedagogical and methodological subjects, by organizing courses and supplying them with educational resources.

ETC (English Through Content)

This project is located in Navarra, a community placed somewhere between a monolingual and a bilingual community. To put it simply, at least three different zones are identified here: a sector where Basque is the official language, a mixed sector where Basque and Spanish coexist and a sector where Spanish is the official language. Thus, the linguistic education in this context is organized around four different models: Model A, education in Spanish and Basque language as a subject; Model B, bilingual education in which some subjects are taught in Basque and some in Spanish; Model D, education in Basque, with Spanish language and literature as subjects and Model G, education in Spanish, without any subject in Basque or without Basque as a subject.

In 2001, the ETC pilot project was launched on an experimental basis in 36 infant and primary schools of Navarra. Since the year 2003, the project applies to all of the schools in this community. ETC is a CLIL approach to language learning organized around a series of topic units tackled from the different perspectives of the different school areas. The full programme contains 43 lesson units for infant and primary education. In June 2005, Gobierno de Navarra submits the programme on DVD to each school. The teachers involved in ETC must attend a series of training sessions, where they are offered a methodological and a linguistic basis to develop and deliver the materials. There is also an online part of training devoted to evaluate each experience, the materials designed and the methodological guides.

In 2004, the document entitled *Evaluación de la Enseñanza y el Aprendizaje de la Lengua Inglesa* (Gobierno de Navarra, 2004) presented the results of the evaluation of the ETC Project in the fourth year of primary education, after having received three years of some type of CLIL instruction. The results of this group were compared with the results provided by the sixth-grade primary school students in 1999. Overall, the results seem to be quite similar in both groups, despite their different levels. As far as the initial training of the prospective ETC teacher is concerned, the results reflect the wide diversity of teacher profiles found. Among other results, 17.7% were university graduates, 12.3% of the respondents had obtained the FCE (Cambridge's First Certificate in English) and 42.8% were certified at fifth grade in English by the Official Language School. Only 2% of the teachers were native speakers of English and 25.1% had been living in an English-speaking country for reasons other than academic.

Secciones Europeas/Secciones Bilingües (European Sections/Bilingual Sections)

On the basis of CLIL, this programme includes bilingual sections in primary and secondary schools of different monolingual communities such as Aragón, Andalusia, Asturias, Canarias, Cantabria, Castilla La Mancha, Extremadura or Madrid, among others. The programme is also present in some bilingual communities such as Galicia or the Balearic Islands. In Castilla La Mancha, the programme consists of 36 European Sections located in 16 schools (3600 students). The foreign languages involved in this programme are mainly English and French. A Spanish-Portuguese section is found in Extremadura. The programme promotes foreign language teaching by adopting a CLIL approach and by allowing an increase in the instructional hours in the L2.

As an example of the requirements of the non-language specialist teachers involved in these sections, the programme in Extremadura specifies that the primary teacher should have passed the EOI third grade, or

have the Diplôme d'Études en Langue Française (DELF) or the Diploma Elementar de Português Língua Estrangeira (DEPLE). On the other hand, the secondary teacher should have obtained the corresponding certificate of the EOI fourth or fifth year, have the Advanced English Certificate or equivalent, the Diplôme Approfondi de Langue Française (DALF), or the Diploma Universitario de Português Língua Estrangeira (DUPLE) in each case (DOE, 2007).

Proyecto Bilingüe (Bilingual Project)

Although different bilingual projects are located in different Spanish communities, here we are specifically referring to the Bilingual Project carried out in the autonomous community of Madrid. It was first set up in 26 public infant/primary schools in the year 2003/2004. Currently, 147 schools take part in this project.

This project consists of a CLIL model in which any subject, with the exception of mathematics and Spanish language, may be taught in English, French or German. It includes a specific teacher training programme. In a first phase, the teachers enroll for two months on a 240-hour-intensive course along with native teachers. At the end of this phase, the teachers obtain the CEF B2-level certificate. In a second phase, these teachers take a one-month summer course in the United Kingdom. Furthermore, prospective teachers need to obtain a qualification in written and oral L2 productive and receptive skills. The procedure consists of two distinct phases: (1) evaluation of reading, writing, listening, grammar and vocabulary skills, and (2) evaluation of teachers' oral communicative competence through an interview. Some teachers are exempted from passing the first phase, especially those who hold a degree in English/French/German Studies or Translation Studies, certified in Official Language Schools; those who possess the Cambridge Certificate of Proficiency in English (CPE), Cambridge Certificate in Advanced English (CAE) or the Trinity College Certificate (Domain 11 or 12); or those who have similar certificates in French and German. Similarly, those teachers who have passed the specific teacher training programme do not need to pass the first phase.

Plan de Fomento del Plurilingüismo (Plurilingualism Promotion Plan)

The Plurilingualism Promotion Plan (BOJA, 2005) originated in Andalusia in 2005. It aims at putting forward the European language policy by adapting other bilingual programmes in this community, for example, bilingual sections, and developing new actions to foster plurilingual education. This plan is based on the following main pillars: Bilingual Schools Programme, Official Language Schools Programme, Teachers and Plurilingualism, Plurilingualism and Society and Plurilingualism and Cross-Culturalism Programme. Although it does not have a second official language, the community of Andalusia has been particularly concerned in recent years with bilingual and multilingual issues.

Conclusions

First, this chapter has attempted to provide an account of the current state of research on Spanish bilingual education, by paying special attention to monolingual communities. Second, it has aimed at examining the number and type of CLIL official initiatives carried out at present mainly in Spanish monolingual communities at non-university levels.

On the one hand, compared to the research activity in bilingual communities, the revision of the situation of the bilingual education has generally demonstrated shortage of research on CLIL and related practices in Spanish monolingual communities. Some embryonic research has been detected in some of them. Some possible reasons for this lack of studies could be the parallel lack of tradition and social concern on bilingual education in these communities, and the fact that the initial stage of CLIL in this part of Spain might have prevented research in the field.

On the other hand, the review of Spanish CLIL initiatives indicates that, while important actions are identified (see for example the Andalusian case), some problematic areas are also found. Based on the requirements imposed on the CLIL teachers, we have identified two different types of programmes: (1) the MEC-British Council project and the Bilingual Project, for which the prospective CLIL teacher should have a native or near-native command of L2; and (2) the remaining programmes that do not include this requirement. As a common tendency, we have observed serious inconsistencies between what is required of these teachers in most CLIL programmes, what should be required of them and the type of training they receive. Pre-service training is practically non-existent and the type of in-service training detected is not enough. These results reveal the initial steps of CLIL teaching in the monolingual part of Spain, along with a need for a more systematic type of initial and in-service training and a consistent evaluation of the student CLIL teacher in, at least, a dual qualification: foreign language competence and CLIL methodology.

Although the investigation found in monolingual settings covers both CLIL acquisition (e.g. Jiménez Catalán *et al.*, 2006; Llinares & Wittaker, 2006) and CLIL teaching (e.g. Fernández *et al.*, 2005; Halbach *et al.*, 2005; Pena *et al.*, 2006), it is of critical importance to conduct further research on both aspects as new CLIL experiences are emerging in these contexts. In addition to further exploring the effectiveness of CLIL in terms of learners' L2 proficiency, research on CLIL acquisition should examine the causes of the slight differences between CLIL learners and non-CLIL learners. The type of research carried out in bilingual communities so far could provide some useful guidelines on the procedure that should be followed in the research conducted in monolingual communities. Obviously, research on CLIL should also consider the learners' scores in non-CLIL contexts. Besides, this investigation on CLIL acquisition should include cognitive,

attitudinal and affective factors that may influence language learning. It would be interesting and revealing to find out how CLIL affects the learners' motivation and cognitive engagement in comparison with non-CLIL instruction. Apart from research on CLIL outcomes, further research lines should be developed to meticulously explore the specific situation of language education in each Spanish community, and to investigate the situation of the teachers involved in bilingual teaching by focusing on identifying their needs and finding solutions to the problems they face in their daily practice.

Acknowledgements

The author acknowledges the financial support by MEC and FEDER through the projects BFF2003-04009-C02-02 and HUM2006-09775-C02-02/FILO.

Notes

1. An English version of the Spanish Constitution of 27 December 1978 can be found at <http://www.constitucion.es/constitucion/lenguas/ingles.html>
2. "The Basque Country covers an area of approximately 10,742 km² and comprises seven provinces, three belonging to the French 'Pyrenees Atlantiques' community (Lapurdi, Nafarroa Beherea and Zuberoa), and four to two autonomous regions in Spain (the Basque Autonomous Community, or BAC, and Nafarroa [Navarra]" (Cenoz, 1998: 175). Henceforth both terms, Basque Country and Basque Autonomous Country (BAC), will be used indistinctively.
3. There exists a linguistic variant of Gascon Occitan, known as Aranese, which is co-official in Aran Valley in the Pyrenees. Others are no official languages, such as Asturian (in Asturias and part of León – in the Community of Castilla y León) or *Aragonese* (in Huesca – in the Community of Aragón).
4. The approximate equivalence between the grades of the Official Language School (EOI) and the levels of the Common European Framework of Reference for Languages (CEF) (Council of Europe, 2001) is as follows: CEF A1 level would correspond to EOI first grade, CEF A2 to EOI second grade, CEF B1 to EOI third grade, CEF B2 to EOI fourth grade and CEF C1 level would correspond to EOI fifth grade (currently added). CEF C2 does not meet any EOI levels.

References

- Agustín Llach, M.P. and Jiménez Catalán, R.M. (2007) Lexical reiteration in EFL young learners' essays: Does it relate to the type of instruction? *IJES* (Special Issue, edited by R. Manchón and A. Sánchez) 7 (2), 85–103.
- Almgren, M. and Idiazabal, I. (2001) Past tense verb forms, discourse context and input features in bilingual and monolingual acquisition of Basque and Spanish. In J. Cenoz and F. Genesee (eds) *Trends in Bilingual Acquisition* (pp. 107–130). Amsterdam, Philadelphia: Benjamins.
- Artigal, J. (1991) *The Catalan Immersion Program: A European Point of View*. Norwood, NJ: Ablex.

- Artigal, J.M. (1993) Catalan and Basque immersion programmes. In H. Baetens Beardsmore (ed.) *European Models of Bilingual Education* (pp. 30–53). Clevedon: Multilingual Matters.
- Baldaquí, J.M. (2000) *Els Programes Educatius Bilingües a la Comarca de l'Alacantí. Estudi Sociolingüístic*. Alacant: Facultat de Filosofia i Lletres de la Universitat d'Alacant.
- Bernaus, M., Moore, E. and Cordeiro, A. (2007) Affective factors influencing plurilingual students' acquisition of Catalan in a Catalan–Spanish bilingual context. *The Modern Language Journal* 91 (2), 235–246.
- Blas, J.L. (2002) The languages of the Valencian educational system: The results of two decades of language policy. *International Journal of Bilingual Education and Bilingualism* 5 (6), 318–338.
- BOE (1990) *Organic Law of General Organization of the School System (LOGSE)*, 1/1990 of 3 of October. Boletín Oficial del Estado No. 238, 4 October.
- BOE (2002) *Organic Law on the Quality of Education (LOCE)*, 10/2002 of 23 December. Boletín Oficial del Estado No. 307, 24 December.
- BOE (2006) *Organic Law of Education (LOE)*, 2/2006 of 3 May. Boletín Oficial del Estado No. 106, 4 May.
- BOJA (2005) *Acuerdo de 22 de marzo de 2005, del Consejo de Gobierno, por el que se aprueba el Plan de Fomento del Plurilingüismo en Andalucía (Plurilingualism Promotion Plan. A language policy for Andalusian society)*. Boletín Oficial de la Junta de Andalucía No. 65, 5 March.
- Bosch, L. and Sebastián-Gallés, N. (2001) Early language differentiation in bilingual infants. In J. Cenoz and F. Genesee (eds) *Trends in Bilingual Acquisition* (pp. 71–93). Amsterdam, Philadelphia: Benjamins.
- Brinton, D.M., Snow, M.A. and Wesche, M.B. (2004) *Content-based Second Language Instruction*. New York: Newbury House.
- Broc, M.A., Huguet, A. and Huguet, A.M. (1994) Bilingüismo y educación en la franja oriental de Aragón: revisión teórica y perspectivas de futuro. *Alazet: Revista de Filología* 6, 9–34.
- Burgueño, J. (2002) El mapa escondido: Las lenguas en España. *Boletín de la Asociación de Geógrafos Españoles* 34, 171–192.
- Cajilde, J. (1991) La educación bilingüe: Una evaluación y reflexión en el caso de Galicia. *Bordón: Revista de Orientación Pedagógica* 43 (1), 31–38.
- Cantoni-Harvey, G. (1987) *Content-Area Language Instruction: Approaches and Strategies*. Reading, MA: Addison-Wesley.
- Celce-Murcia, M. (ed.) (1991) *Teaching English as a Second or Foreign Language*. Boston, MA: Heinle & Heinle.
- Cenoz, J. (1998) Multilingual education in the Basque Country. In J. Cenoz and F. Genesee (eds) *Beyond Bilingualism: Multilingualism and Multilingual Education* (pp. 175–191). Clevedon: Multilingual Matters.
- Cenoz, J. (2001) The effect of linguistic distance, L2 status and age on cross-linguistics influence in third language acquisition. In J. Cenoz, B. Hufeisen and U. Jessner (eds) *Cross-Linguistic Influence in Third Language Acquisition* (pp. 8–20). Clevedon: Multilingual Matters.
- Cenoz, J. (2003) The additive effect of bilingualism on third language acquisition: A review. *International Journal of Bilingualism* 7, 71–87.
- Cenoz, J. (2005) English in bilingual programs in the Basque Country. *International Journal of the Sociology of Language* 171, 41–56.
- Cenoz, J. and Valencia, J. (1994) Additive trilingualism: Evidence from the Basque Country. *Applied Psycholinguistics* 15, 255–274.
- Council of Europe (2001) *Common European Framework of Reference for Languages: Learning, Teaching, Assessment*. Council of Europe Modern Languages Division, Strasbourg: Cambridge University Press.

- Dafouz, E. (2006) Solidarity strategies in CLIL university lectures: Teacher's use of pronouns and modal verbs. *Vienna English Working Papers (VIEWS)* 15 (3), 9–14.
- Dalton-Puffer, C. and Smit, U. (eds) (2007) *Empirical Perspectives on CLIL Classroom Discourse*. Frankfurt: Peter Lang.
- DOE (2007) *Orden de 11 de abril de 2007 por la que se regula la convocatoria de secciones bilingües, con carácter experimental, en centros sostenidos con fondos públicos de Educación Primaria y de Educación Secundaria de Extremadura*. Diario Oficial de Extremadura No. 46, 21 April.
- Escobar, C. (2007) Tasques d'intercanvi de informació i processos d'aprenentatge en l'aula AICLE. In A. Camps and M. Milian (coord.) *I Jornades de recerca sobre l'educació lingüística i literària en entorns plurilingües*. Barcelona: Graó.
- Escobar, C. and Pérez-Vidal, C. (2004) Teacher education for the implementation of a Content and Language Integrating Learning approach (CLIL) in the school system. In R. Wilkinson (ed.) *Integrating Content and Language: Meeting the Challenge of Multilingual Education* (pp. 402–415). Maastricht: Universitaire Pers Maastricht.
- European Commission (2001a) *Europeans and Languages*. Special Eurobarometer 54.1b, February. European Commission.
- European Commission (2001b) *Standard Eurobarometer 55.1*, October. European Commission.
- European Commission (2005) *Europeans and Languages*. Special Eurobarometer 63.4, September. European Commission.
- Eurydice (2006) *Content and Language Integrated Learning (CLIL) at School in Europe*. Brussels: Eurydice European Unit.
- Fernández, R., Pena, C., García, A. and Halbach, A. (2005) La implantación de proyectos educativos bilingües en la Comunidad de Madrid: Las expectativas del profesorado antes de iniciar el proyecto. *Porta Linguarum* 3, 161–173.
- Fruhauf, G., Coyle, D. and Christ, I. (eds) (1996) *Teaching Content in a Foreign Language: Practice and Perspectives in European Bilingual Education*. Alkmaar, The Netherlands: European Platform for Dutch Education.
- Gallardo del Puerto, F. (2005) *La Adquisición de la Pronunciación del Inglés como Tercera Lengua*. Bilbao: Universidad del País Vasco, Euskal Herriko Unibertsitateko, Argitalpen Zerbitzua.
- García Mayo, M.P. and García Lecumberri, M.L. (eds) (2003) *Age and the Acquisition of English as a Foreign Language*. Clevedon: Multilingual Matters.
- García Mayo, M.P. and Lázaro, A. (2005) Pronouns revisited: Evidence from the morphosyntactic development of English as an L3. In F. Garrudo and J. Comesaña (eds) *Estudios de Filología Inglesa en honor de Antonio Garnica Silva* (pp. 217–228). Sevilla: Universidad de Sevilla.
- Gobierno de Navarra (1999) *Actas de las Jornadas de Lenguas Extranjeras*. Pamplona: Departamento de Educación.
- Gobierno de Navarra (2004) *Evaluación de la enseñanza y el aprendizaje de la lengua inglesa. 4º de educación primaria. 2004. Anticipación del programa de refuerzo de la enseñanza del inglés en los centros públicos*. Navarra: Departamento de Educación.
- Halbach, A., Pena, C., García A., Fernández, R., Fernández, J., Ballesteros, L. and Ramos, A. (2005) INSITES: Webs for teachers working with bilingual education models. *TESOL – Spain Newsletter* 29 (July), 13–14.
- Hoffmann, C. (1995) Monolingualism, bilingualism, cultural pluralism and national identity. In S. Wright (ed.) *Monolingualism and Bilingualism: Lessons from Canada and Spain* (pp. 59–90). Clevedon: Multilingual Matters.
- Huguet, A. (1994) Hacia un modelo para el tratamiento curricular de las lenguas en el Aragón oriental. *Revista de Educación* 305, 429–448.

- Huguet, A. (2004) La educación bilingüe en el Estado español: Situación actual y perspectivas. *C & E: Cultura & Educación* 16 (4), 399–418.
- Huguet, A. and González, X.A. (2003) Enseñanza del asturiano y rendimiento en matemáticas en alumnos asturianos de condición lingüística familiar castellana. *Bordón: Revista de Orientación Pedagógica* 55 (2), 231–239.
- Huguet, A., Lasagabaster, D. and Vila, I. (2008) Bilingual education in Spain: Present realities and future challenges. In N.H. Hornberger (ed.) *Encyclopedia of Language and Education* (Vol. 5), Bilingual Education. New York: Springer.
- Huguet, A., Suñis, J. and Lapresta, C. (2004) Un modelo de educación trilingüe: El sistema educativo del Valle de Aran. Descripción, actitudes y perspectivas. *Revista de Educación* 333, 427–440.
- Janés, J. and Huguet, A. (2000) Nuevas perspectivas para una educación bilingüe en el Aragón catalanófono. *Bordón: Revista de Orientación Pedagógica* 52 (1), 39–50.
- Jiménez Catalán, R.M., Ruiz de Zarobe, Y. and Cenoz, J. (2006) Vocabulary profiles of English foreign language learners in English as a subject and as a vehicular language. *VIEWS* 15 (3), 23–27.
- Lasagabaster, D. (2000) Three languages and three linguistic models in the Basque educational system. In J. Cenoz, U. Jessner and B. Hufeisen (eds) *English in Europe: The Acquisition of a Third Language* (pp. 179–197). Clevedon: Multilingual Matters.
- Lasagabaster, D. (2001) Bilingualism, immersion programmes and language learning in the Basque Country. *Journal of Multilingual and Multicultural Development* 22, 401–425.
- Lasagabaster, D. (2004) Attitudes towards English in the Basque Autonomous Community. *World Englishes* 23, 211–224.
- Lasagabaster, D. (2005) Attitudes towards Basque, Spanish and English: An analysis of the most influential variables. *Journal of Multilingual and Multicultural Development* 26, 296–316.
- Lasagabaster, D. (2007) Language use and language attitudes in the Basque Country. In D. Lasagabaster and A. Huguet (eds) *Multilingualism in European Bilingual Contexts. Language Use and Attitudes* (pp. 65–89). Clevedon: Multilingual Matters.
- Llinares, A. and Whittaker, R. (2006) Linguistic analysis of secondary school students' oral and written production in CLIL contexts: Studying social science in English. *VIEWS* 15 (3), 28–32.
- Llovet, X. (2007) E/LE en Europa: El caso de la perspectiva del docente en un Enfoque Integrado de Contenidos y Lenguas Extranjeras (EICLE), Memoria de máster (Universidad de Barcelona, 2005). *RedELE: Revista Electrónica de Didáctica ELE* 7. On WWW at <http://www.mec.es/redele/Biblioteca2007/XavierLlovet.shtml>.
- Madrid, D. (2005) Bilingual and plurilingual education in the European and Andalusian context. *International Journal of Learning* 12 (4), 177–186.
- Madrid, D. (2006) Desarrollo del bilingüismo y plurilingüismo en Andalucía. *II Jornadas de Didáctica de la Lengua y la Literatura*, 16–18 October. Spain: University of Burgos.
- Marco, A. (1993) Bilingüismo y educación. *Revista Interuniversitaria de Formación del Profesorado* 18, 175–185.
- Marsh, D. (2002) *CLIL/EMILE – The European Dimension: Actions, Trends and Foresight Potential*. DG Education & Culture, European Commission. On WWW at http://ec.europa.eu/education/policies/lang/doc/david_marshall-report.pdf.
- Marsh, D., Maljers, A., and Hartiala, A-K. (eds) (2001) *Profiling European CLIL Classrooms: Languages Open Doors*. Jyväskylä: European Platform for Dutch Education, University of Jyväskylä. On WWW at <http://www.cec.jyu.fi/kasvatusjaopetus/clil/clilprofiling>.

- Martín White, D. and Cercadillo, L. (2005) La enseñanza bilingüe de contenidos: una experiencia en geografía e historia. *Iber: Didáctica de las Ciencias Sociales, Geografía e Historia* 44, 87–95.
- Mohan, B. (1986) *Language and Content*. Reading, MA: Addison-Wesley.
- Mohan, B., Leung, C. and Davison, C. (eds) (2001). *English as a Second Language in the Mainstream: Teaching Learning and Identity*. Harlow: Longman.
- Muñoz, C. (2000) Bilingualism and trilingualism in school students in Catalonia. In J. Cenoz and U. Jessner (eds) *English in Europe: The Acquisition of a Third Language*. Clevedon: Multilingual Matters.
- Navés, T. and Muñoz, C. (1999) CLIL experiences in Spain. In D. Marsh and G. Langé (eds) *Implementing Content and Language Integrated Learning* (pp. 145–157). Finland: Continuing Education Centre, University of Jyväskylä.
- Navés, T., Miralpeix, I. and Celaya M.L. (2005) Who transfers more ... and what? Crosslinguistic influence in relation to school grade and language dominance in EFL. *International Journal of Multilingualism* 2 (2), 113–134.
- Pena, C., García A., Fernández, R. and Fernández, J. (2006) Training needs of teachers involved in the bilingual programme in Madrid Primary schools. *GRETA 2005: TEACHING ALIVE?* Granada: GRETA.
- Pérez-Vidal, C. (1997) Language teacher training and bilingual education in Spain. In P. Van de Craen and D. Wolff (eds) *Language Teacher Training and Bilingual Education* (Technical Report. TNP Evaluation Conference). Lille: University of Lille III.
- Pérez-Vidal, C. (1998) Towards multilingualism: Content and language integrated learning in Spain. In D. Marsh, B. Marsland and A. Maljers (eds) *Future Scenarios in Content and Language Integrated Learning* (pp. 54–62). Jyväskylä: European Platform for Dutch Education, University of Jyväskylä.
- Pérez-Vidal, C. (1999) Teacher education: The path towards CLIL. In D. Marsh and B. Marsland (eds) *CLIL Initiatives for the Millennium* (Report on the CEILINK Think-Tank) (pp. 16–18). Jyväskylä: University of Jyväskylä.
- Pérez-Vidal, C. (2001) Dimensiones del aprendizaje integrado de contenidos curriculares y lenguas extranjeras. In D. Marsh, A. Maljers and A. Hartiala (eds) *The CLIL Compendium. Profiling European CLIL classrooms* (pp. 215–253). Jyväskylä: University of Jyväskylä.
- Pérez-Vidal, C. (2002) Spain. In M. Grenfell (ed.) *Modern Languages across the Curriculum* (pp. 114–130). London: Routledge Falmer.
- Pérez-Vidal, C. and Campanale Grilloni, N. (ed.) (2006) *Content and Language Integrated Learning (CLIL) in Europe: Teaching Materials for the Secondary School Classroom*. Barcelona: Universitat Pompeu Fabra.
- Pérez-Vidal, C., Juan-Garau, M. and Bel, A. (eds) (2007) *A Portrait of the Young in the New Multilingual*. Clevedon: Multilingual Matters.
- Ramos, F. (2007) Programas bilingües y formación de profesores en Andalucía. *Revista Iberoamericana de Educación* 44, 133–146.
- Rodríguez-Yáñez, X.P., Lorenzo, A.M. and Ramallo, F. (eds) (2005) *Bilingualism and Education: From the Family to the School*. Munich: Lincom Europa.
- Ruiz de Zarobe, Y. (2005) Age and L3 production: A longitudinal study. *International Journal of Multilingualism* 2, 105–113.
- Safont, M.P. (2005) *Third Language Learners. Pragmatic Production and Awareness*. Clevedon: Multilingual Matters.
- Scott-Tennent, C. (1993) *Procesos de Lengua Inglesa por Contenidos en la Etapa 12–16: "Content-Based Teaching"*. Unpublished MA dissertation, Universitat Rovira i Virgili.
- Scott-Tennent, C. (1994–1995) Estudio empírico de procesos de lengua extranjera mediante contenidos (no-lingüísticos) en la enseñanza secundaria. *RESLA: Revista Española de Lingüística Aplicada* 10, 251–260.

- Scott-Tennent, C. (1996) La adquisición de las lenguas extranjeras mediante contenidos de la ESO. *Diálogos hispánicos de Amsterdam* 17, 261–271.
- Serra, J.M. (2006) El plan de lengua y cohesión social en Catalonia: Primeros datos de una investigación. *C & E: Cultura & Educación* 18 (2), 159–172.
- Siguán, M. (1992) *España plurilingüe*. Madrid: Alianza.
- Siguán, M. (1994) *Conocimiento y uso de las lenguas en España*. Madrid: Centro de Investigaciones Sociológicas.
- Siguán, M. (2007) Prologue. In C. Pérez-Vidal, M. Juan-Garau and A. Bel (eds) *A Portrait of the Young in the New Multilingual* (pp.1–17). Clevedon: Multilingual Matters.
- Trujillo, F. (2005) La integración de lenguaje y contenidos en la enseñanza de español como segunda lengua en el contexto escolar: Implementación y evaluación. *Revista Electrónica RedEle* 4. On WWW at <http://www.mec.es/redele/revista4/trujillo.shtml>.
- Turell, M.T. (ed.) (2001) *Multilingualism in Spain*. Clevedon: Multilingual Matters.

Chapter 2

Effective Content and Language Integrated Learning (CLIL) Programmes

TERESA NAVÉS

International surveys indicate that the majority of people in the world are bilingual or multilingual rather than monolingual (see for example, World Bank, 1995). In fact, many more children throughout the world are educated in a second or foreign language, for at least part of their formal education, than exclusively in their mother tongue (Tucker, 1999).

Content and Language Integrated Learning (CLIL) is not new. In recent years, however, integrating the teaching of languages with the teaching of academic subject matter has become more and more popular all over the world. The programme goals vary a great deal as does the degree of success achieved. In Canada, English and French have been the target languages of French- and English-speaking communities, respectively. In Quebec, for example, English speakers in some schools have been taught almost the entire curriculum in French. In the United States, with a multilingual population, the main concern has been to guarantee that all school children can fully function in English, especially, in academic contexts. Because of the increase of students from abroad in North American universities, content-based programmes have been more and more widely used to help these students cope with the demands of academic objectives. In Europe and Asia, most of the programmes are designed to improve the learning of foreign languages.

Introduction: CLIL in Europe and Asia, Canada and USA

Canadian Immersion Programmes are by far the most highly acclaimed language-learning programmes. Studies in Second Language Acquisition (SLA) researchers, teachers and parents fully agree that the immersion programmes in Canada have been extremely efficient and successful. Instruction is given in the target language from kindergarten on or starting at some time during elementary school (Swain, 2000; Swain & Lapkin, 1982).

Early immersion begins right at the start of schooling in kindergarten or grade 1, whereas delayed immersion does not begin until the middle years of elementary school (ages 9–10) and late immersion after that (ages 11–14). An important difference between early and delayed or late-immersion programmes is that training in second-language literacy precedes training in first-language literacy in early immersion. In total French immersion, all classes are taught in French, usually for the first three years of the programme. English language arts classes are introduced in the fourth grade, followed by a gradual increase in English instruction for other subjects. In partial French-immersion programmes, a varying proportion of classes (usually 50%) are taught in French. This proportion typically remains stable throughout the programme (Canadian Council on Learning, 2007).

When the first immersion programmes were set up in the mid-1960s, school boards, parents and administrators insisted that they be evaluated. Because all content was being taught using the students' second language, parents and educators were concerned about how much content would be learnt, about the development of first-language skills and about how well the second language would be learnt. Throughout the 1970s and 1980s, performance in these three areas was monitored. Four generalisations can be drawn from the immersion data. First, in order to obtain expected levels of achievement in the subjects taught via the second language, 'threshold levels' of L2 skills need to be reached. Second, while early total immersion students consistently performed as well as their unilingual, English-instructed peers on content-subject tests, early partial immersion students did not. Third, although the early total immersion programme was considered to be the one that would most threaten the development of first-language skills, results of empirical research show that this is not the case. In the short run, after just two or three years, immersion students lag behind their non-immersion peers in some aspects of English. After that, however, immersion children perform as well as, or better than, their English-educated peers in all aspects of English language skills. Fourth, in general, early and late French immersion students have similar levels of writing skills in French, with both groups performing less well than their francophone peers. Immersion weaknesses clearly relate to deficits in their grammatical competence and vocabulary knowledge, rather than to discourse aspects of performance. Speaking is the weakest of the four skill areas for immersion students (Swain & Johnson, 1996).

In the United States, the integration of content and language has a long tradition both in what is usually known as content-based instruction (CBI) and in bilingual education (BE) programmes. Although BE programmes are still controversial for politicians and the media, when properly implemented, research has clearly shown that they are at least as efficient as non-bilingual programmes, if not more so.

CBI is '... the integration of particular content with language teaching aims ... the concurrent teaching of academic subject matter and second language skills' (Brinton *et al.*, 1989: 2). CBI approaches 'view the target language largely as the vehicle through which subject matter content is learned rather than as the immediate object of study' (Brinton *et al.*, 1989: 5).

BE has been defined as 'schooling provided fully or partly in a second language with the object in view of making students proficient in the second language while, at the same time, maintaining and developing their proficiency in the first language and fully guaranteeing their educational development' (Stern, 1972 cited in Swain, 2000: 199–212). For the National Association for Bilingual Education (NABE), BE has been practised in many forms, in many countries, for thousands of years. 'Defined broadly, it can mean any use of two languages in school – by teachers or students or both – for a variety of social and pedagogical purposes. In today's context, a period of demographic transformation in United States, bilingual education means something more specific. It refers to approaches in the classroom that use the native languages of English language learners (ELLs) for instruction' (NABE, 2004). BE remains controversial, in spite of a substantial number of studies demonstrating that students in bilingual programmes learn and succeed academically in English at least as well as, or better than in programmes conducted only in English.

Schools in which the teaching of certain subjects in the curriculum may be offered in a foreign language have existed in Europe for several decades. The 1995 Resolution of the Council of Europe refers to the promotion of innovative methods and, in particular, to 'the teaching of classes in a foreign language for disciplines other than languages, providing bilingual teaching'. It also proposes improving the quality of training for language teachers by 'encouraging the exchange with Member States of higher education students working as language assistants in schools, endeavouring to give priority to prospective language teachers or those called upon to teach their subject in a language other than their own'.

The European Commission's (1995) *White Paper. Teaching and Learning. Towards the Learning Society* declares that proficiency in three community languages is a priority, and suggests lowering the starting age and teaching content in a foreign language as ways to contribute to the achievement of this objective.

The European Commission's (2005: 5) report on foreign language teaching and learning claims that an excellent way of making progress in a foreign language is 'to use it for a purpose, so that the language becomes a tool rather than an end in itself.' The European Commission has funded research projects across Europe investigating the use of CLIL since the early 1990s, pulling together the threads of existing approaches such as 'CBI', 'immersion' and 'BE'. All the aforementioned terms were replaced by CLIL, which was launched by UNICOM in 1996. CLIL refers to

situations where subjects are taught in a foreign language with two aims: learning content and, at the same time, learning a foreign language (Marsh & Langé, 1999). CLIL programmes involve learning subjects such as history, geography and others in a language that is not one's own (Marsh & Langé, 2000). According to the European Commission's (2005) report, CLIL helps to ensure the attainment of EU objectives in the area of language learning and enables pupils to study a non-language-related subject in a foreign language.

CLIL and other forms of bilingual or immersion teaching share certain common features. CLIL will be used as an umbrella term to refer to the aforementioned programmes in this chapter. BE will also be used to talk about specific programmes in the United States and elsewhere.

CLIL Rationale

For Littlewood (2007), there is no discontinuity between content-language instruction (CLI) and task-based learning and teaching (TBLT). Richards (2005: 29) includes both task-based and CBI as 'extensions of the CLI movement but which take different routes to achieve the goals of communicative language teaching – to develop learners' communicative competence'. Nunan (2004: 10) sees communicative language teaching as an overarching concept ('a broad, philosophical approach to the language curriculum') of which 'task-based language teaching represents a realization ... at the levels of syllabus design and methodology'. Littlewood (2004: 324) also regards TBLT as 'a development within the communicative approach', in which the crucial feature is that communicative 'tasks' serve not only as major components of the methodology but also as units around which a course may be organised.

Most of the arguments in favour of CLIL come from SLA research and show that CLIL (1) creates conditions for naturalistic language learning; (2) provides a purpose for language use in the classroom; (3) has a positive effect on language learning by putting the emphasis on meaning rather than form; and (4) drastically increases the amount of exposure to the target language (Dalton-Puffer, 2007; Dalton-Puffer & Smit, 2007).

We can briefly review the rationale for integrating content and language. Krashen (1982), Lightbown and Spada (2006), Long (1990) and Swain (2000), among others, suggest that a second language is most successfully acquired when the conditions are similar to those present in first-language acquisition: that is, when the focus of instruction is on meaning rather than on form, when the language input is at or just above the proficiency of the learner and when there is sufficient opportunity to engage in meaningful use of that language in a relatively anxiety-free environment. The researchers take the position that students will learn more when the focus of language instruction is shifted away from teaching the language

directly to a situation in which students acquire language naturally, through lively exchanges with other students. The key to these exchanges is content area instruction in English.

Cummins (1981) argues that individuals develop two types of language proficiency: basic interpersonal language skills (BISC) and cognitive academic language proficiency (CALP). While interpersonal language skills can be acquired in 1–2 years, the level of proficiency needed to cope with academic contexts takes 5–7 years to develop. CLIL offers a means by which learners can continue their academic or cognitive development while they are also acquiring academic language proficiency. Cummins (1984) also suggests that successful learning takes place when the task is cognitively demanding yet heavily contextualised. The integration of language and subject matter content offers the possibility of meeting the two conditions.

Research on second-language acquisition has shown that considerable exposure to naturally occurring language is necessary to ensure the achievement of a good level of competence in the L2. Learners need to have access to spontaneous speech, preferably in an interactive context where they can obtain plenty of information on the structure and functioning of the foreign language. Acquiring an L2 is a long, natural process (Lightbown & Spada, 2006).

In Europe and Asia, when CLIL programmes guarantee a considerable increase in the amount of exposure to the L2, they may prove a unique opportunity to improve levels of performance in the learning of foreign languages.

Superiority of BE over Other Programmes

In the survey of successful programmes in California, Krashen and Biber (1988) found that students in well-designed bilingual programmes consistently outperformed their peers. Three major meta-studies, Willig (1985), Greene (1998) and Wong-Fillmore and Valadez (1986), addressed the extensive comparative literature on instructional practices that improve the development of literacy in bilingual populations. Willig analysed 23 studies and compared the results from various types of programmes. Willig's (1985) meta-analysis indicated that BE programmes significantly enhanced academic achievement in comparison with English instructional programmes. In general, research in the United States shows that BE, when well implemented, is the most effective way to enable speakers of languages other than English to learn both English and academic subjects (Cummins, 1984; García, 2008; García *et al.*, 2008; Krashen, 1991, 1997; Swain & Lapkin, 1982).

Thomas and Collier (1997) conclude that at the elementary level two-way BE is the best programme because students develop academic and second-language proficiency as well as cognitive understanding through their first language. These advantages are not evident until the sixth grade.

Students who are in educational programmes that provide extended instruction in their native language outperform students who only receive short-term instruction in their native language (Genesee *et al.*, 2006).

How Can We Describe Successful CLIL Programmes if They are so Different from One Another?

The majority of Content and Language Integrated programmes, whether we are talking about BE or immersion, share basic characteristics, but they display two major differences. First, BE programmes and partial immersion programmes provide instruction in the learners' mother tongue, whereas most, if not all, initial instruction in total early immersion programmes is in the second language. A second major difference is that in immersion programmes all learners are initially unilingual, that is, they all have a similar, very limited command of the second language and share the same mother tongue, whereas in BE there is not necessarily any common first language and the command of English as a second language among the learners varies a great deal.

Success Definition

In 1999, the US Department of Education, Office of Bilingual Education and Minority Languages Affairs (OBEMLA) funded the Intercultural Development Research Association (IDRA) to identify 10 exemplary BE programmes in schools in the United States. After examining the programmes, IDRA identified the 25 common characteristics and criteria that were responsible for the success of the programmes. 'Success' was operationally defined as evidence of academic achievement (compared to district and/or state standards) for limited English proficiency (LEP) students in BE programmes (IDRA, 2002). For IDRA Newsletter (2002), see also Robledo and Cortez (2002), Robledo and Goodman (2002) and Robledo *et al.* (2004).

Characteristics of Effective CLIL Programmes

Navés (2002) grouped the characteristics of successful CLIL programmes under 10 headings. What follows is a revised and updated version, in the light of the existing literature evaluating content-based, bilingual, immersion and CLIL programmes.

Respect and support for learners' L1 and home culture

What is the rationale for providing some instruction in the learner's native language? Second-language acquisition research has shown that the level of proficiency in the first language has a direct influence on the

development of proficiency in the second language. The lack of continuing first-language development has been found, in some cases, to inhibit the levels of second-language proficiency and cognitive academic growth. The underlying assumptions based on empirical and theoretical research of these CLIL programmes are: on the one hand, the knowledge learners acquire through their first language helps make the English they hear and read more comprehensible. On the other, literacy developed in the primary language transfers to the second.

For Krashen (1997), when schools provide children quality education in their primary language, they give them two things: knowledge and literacy. Literacy developed in the primary language transfers to the second language. Once we can read in one language, we can read in general. There are solid theoretical and empirical grounds for favouring programmes for LEP students that promote the development of their home language before and along with the development of English (Cummins, 1981).

García (2008) points out that it might seem counterintuitive to support the use of the child's first language in education in order to help the child do better in English. But this is explained by the concept of *linguistic interdependence*, which means that knowledge of one language bolsters knowledge of the other. Cummins (2000) argues that, 'the first language must not be abandoned before it is fully developed, whether the second language is introduced simultaneously or successively, early or late, in that process' (Cummins, 2000: 25).

Around the world there is near consensus among researchers that 'greater support for L1 development, and academic development in L1, is positively related to higher long-term academic attainment by LEP pupils' (Ferguson, 2006: 48).

Effective CLIL programmes acknowledge and support learners' home language and culture by allowing learners to use their L1 at early stages and also providing some academic instruction in learners' L1. Language arts (reading, writing, etc.) are introduced in L1 and at different stages content-subject matter is taught in L1 as well.

Collier (1995), Crawford and Krashen (2007a, 2007b), Thomas and Collier (1997), Tikunoff and Vázquez Faria (1982) and Tikunoff (1983a, 1983b), among others, have shown that the development of first-language skills provides a sound foundation for subsequent academic success in and through English as a second language. For Collier (1995) the following four requisites need to be met: (1) a socioculturally supportive environment; (2) the development of the students' first language to a high cognitive level; (3) continuous cognitive development through education in the first language; and (4) teaching the target language with highly cognitively demanding but heavily contextualised tasks.

Cummins (1992, 2000) and Tikunoff (1982, 1983) argued that second-language learners feel empowered by knowing their native culture and

language matter. Several large-scale evaluation programmes (Ramírez, 1992; Thomas & Collier, 1997) demonstrate that using the home language in instruction benefits language-minority students.

Multilingual and bilingual teachers

Most teachers are bilingual, although in most programmes they only use the target language for instruction. They do, however, show their understanding of learners' L1 by responding appropriately and rephrasing learners' remarks made in their L1.

IDRA (2002) found that in successful BE programmes teachers responsible for BE were bilingual and that all teachers in the school regularly received information about BE, ESL strategies and students' cultural and linguistic characteristics.

When bilingual teachers have a conscious, shared ethnic identity, they are likely to intuitively recognize the needs of their bilingual learners. This finding also speaks to the importance of having bilingual teachers, especially those with a conscious, shared ethnic identity, as role models for language minority children. (Bustos Flores, 2001)

Integrated dual language optional programmes

Historically the most effective BE and immersion programmes seem to share three characteristics. First, their optionality. Second, they aim for additive bilingualism and thus are sometimes also known as dual language or two-way bilingual programmes, that is, they aim at making learners fully competent in at least two languages: the mother tongue and the second language. Third, they are not pull-out programmes, that is, they do not segregate LEP students from mainstream classes. It goes without saying that there are other programmes that are effective and successful which do not aim for additive bilingualism.

The five most commonly implemented bilingual programme designs are pull-out, structured immersion, transitional, maintenance and dual language (Crawford, 1999). The first three do not aim at facilitating bilingualism. The remaining two are often recommended because of their proven success in fostering bilingualism, academic achievement and cultural pluralism (Krashen, 1998a, 1998b). In successful CLIL programmes, target language instruction is not structured or is of a pull-out nature but rather contextualised and integrated.

Effective CLIL programmes are optional, not imposed (Swain & Lapkin, 1982). Parents in Canada thought of immersion as a right, not as an imposition. Parents felt they were entitled to ask that their children attend an immersion programme and that it was the responsibility of the Council to provide such education.

Long-term stable teaching staff

One of the key factors to the success of these programmes is that they must be long term, which implies not only the continuity of the programme but also the stability of teaching teams (Navés & Muñoz, 1999).

Lindholm-Leary's (2001) evaluation of BE programmes in California examined (1) English only programmes; (2) transitional BE; and (3) two-way dual language programmes. They concluded that students who were in instructional programmes, where English was used for only 10–20% of the time, did as well on English proficiency tests as students in programmes in which English was used approximately for 50% of the time. It is worth noting that by grade 6 Latino students in dual language education (two-way BE) outperformed transitional BE students. In mathematics students in dual language education scored 10 points higher on average than those educated only in English.

It takes at least seven years for a second-language learner to function with an adequate level of English proficiency in academic contexts, 'a critical time period not allowed by the current education policies in this country. Learners in BE programmes may acquire playground English quickly but true bilingualism can take up to seven years to develop' (Quezada *et al.*, 2000: 25, in García, 2008).

Parental involvement is pivotal

Parents play a critical role in both establishing and maintaining CLIL programmes. Some of the most effective immersion and BE programmes were initially established because of strong parental interest in giving their children enriched language and culture education. The most well-documented case of this is the Canadian French immersion programmes.

A growing number of parents' associations in the North America and elsewhere view bilingualism as a laudable personal and family goal and strive to provide their children with the opportunity to learn a second language at a young age. One clear measure of this parental desire to promote child bilingualism is the explosive demand for and development of two-way BE programmes, in which both majority-language and minority-language children learn two languages (Center for Applied Linguistics, 2007).

... Cummins (1996) observed that "Culturally diverse parents' strong desire to contribute to their child's education . . . care passionately" (p. 8).

Family participation is twice as predictive of academic learning as is the family's socioeconomic status. Parents who feel welcome in schools are a powerful resource that can better their children's education. When schools

and families work together, students succeed and communities are stronger (Montemayor, 2004).

Parental involvement is crucial to the success of bilingual programmes because parents are resources, both to their children and to school personnel. They act as communicators, translators, cultural specialists and so on. Administrators must involve parents in the decision-making process and encourage them to participate in literacy-rich activities, in any language, with their children. Research indicates that parents can best promote literacy in English by developing early literacy in their children's native language (Cloud *et al.*, 2000).

IDRA (2002) found that in the successful BE schools, all parents knew the rationale and the critical components of bilingual and ESL programmes and were strong advocates of the BE programmes. 'Parents felt they belonged at their children's school and were very positive about the administration, faculty and staff, saying they believed them to be truly concerned for and committed to their children's success' (Robledo & Cortez, 2002; Robledo & Goodman, 2002; Robledo *et al.*, 2004). A meta-analysis conducted by Jeynes (2005) of 41 studies involving urban elementary schools demonstrates a significant relationship between parental involvement and academic achievement.

Joint effort of all parties involved

Effective CLIL programmes require the joint effort of all parties involved: educational authorities, parents and teachers at both district and school level are actively involved in planning the policy to implement such programmes and the means by which they are sustained (Navés & Muñoz, 1999).

Designing and implementing a CLIL project is not an easy task. It requires the joint effort of Educational Authorities, school board coordinators, and CLIL teachers. We have already mentioned the lack of specific training for CLIL teachers, how different the ideal profile of a CLIL teacher seems to be from that of ordinary Primary and Secondary school teachers, and how unstable school staff is due to teachers' high mobility. In addition to this, we saw the need of long-lasting CLIL projects, in which to plan coherently which content subjects will be taught in which languages. Therefore, for successful and long-lasting CLIL projects to occur, the Educational Authorities must provide the necessary teaching conditions under which school teachers can work. (Navés & Muñoz, 1999)

Leadership is one of the 25 features IDRA (2002) found in successful BE programmes in the United States. In successful BE programmes, leaders are well informed of the rationale for BE and share an active commitment

to bilingualism. They proactively involve teachers, the community and the private sector in the design and development of the bilingual programme and are open to innovation. All the parties involved feel responsible for maintaining a safe and orderly school climate. Moreover, 'clearly articulated roles and responsibilities, dynamic two-way communication, and focused and sustained supports between central office and school level staff provide strong leadership, credibility, and respect for the bilingual programme' (Robledo & Cortez, 2002; Robledo & Goodman, 2002).

García (2008) claims that in spite of the substantial research evidence that it takes between five and seven years to develop proficiency in academic English, many states insist on keeping emergent bilinguals in special programmes for only one year (California, Arizona and Massachusetts) or for a maximum of three years (New York State and Washington, for example). Zehler *et al.* (2003) report that according to their national survey, emergent bilinguals are receiving educational support for about half the time that they will most likely need it, according to the research.

Teachers' profile and training

Teacher quality and principal quality are two of the most important factors in determining school effectiveness and, ultimately, student achievement (Clewell & Campbell, 2004).

IDRA (2002) found that in successful BE programmes fully credentialed bilingual and ESL teachers did continuous training in best practices in BE and ESL. Moreover, staff were selected based on their academic background, experience in bilingual education and language proficiency. They were also selected for their enthusiasm, commitment and openness to change, and innovation. Teachers were strongly supported, often recognised for their students' successes, and were part of a team that was characterised as loyal and committed. Many of the staff stayed in their schools (Robledo & Cortez, 2002; Robledo & Goodman, 2002; Robledo *et al.*, 2004).

Montague (1997) noted that the most important aspect of any multilingual education programme is teacher training in pedagogical and theoretical aspects of language acquisition. Additional research on teacher training in multilingual education suggests that teachers should have many attributes in order to work in a multilingual education setting: proficiency in the target language, knowledge of the principles of language acquisition and pedagogical skills specifically adapted for teaching foreign languages to young children (Van de Craen & Perez-Vidal, 2003).

High expectations and assessment

In their list of 25 features of effective BE programmes, IDRA (2002) found that the schools that were successful published and disseminated

statements of expectations to the school community that created a vision and set of goals that defined the achievement levels of all students. 'Staff, parents and students, including language-minority parents and students, can state the purpose of the school in their own words' (Robledo & Cortez, 2002; Robledo & Goodman, 2002). Staff in the 10 successful BE programmes surveyed hold themselves accountable for the academic success of all students, including LEP students. As for evaluation, multiple assessment measures both in learners' first language and in the language of instruction are used. Rigorous academic standards apply to all students, including LEP students.

Collier (1992), Walqui (2006) and many others have called attention to the importance of building high expectations for all learners regardless of their individual differences and language and cultural background in particular. Research has shown that teachers and school leaders make a difference in students' education (Robledo & Cortez, 2002). For example, value-added assessment studies in Tennessee have shown that students who have high-quality teachers over a period of three years achieve, on average, 50 percentile points more on standardised tests than those who have low-quality teachers (Sanders & Rivers, 1996).

Materials

Oakes (2002) argues that there is a clear link between appropriate materials and curriculum and student academic outcome. CLIL learners need appropriate materials to learn English and content. Mahone (1985) conducted a need analysis in the United States to look at the appropriacy of the existing materials used in BE. The picture that he described unfortunately still applies to many CLIL contexts in which there are not enough teaching materials available and most of those that have been created by the teachers themselves. Navés and Muñoz (1999) pointed out how important appropriate materials were for CLIL programmes to be successful. Unfortunately, in many different contexts, there are not enough materials available to teachers to meet the needs of teaching content in the target language.

CLIL methodology

Numrich (1989) focuses on five strategies to improve the comprehension of content in CLIL:

- (1) predicting on the basis of prior knowledge;
- (2) anticipating what will be read next;
- (3) using statements to check comprehension of a text during reading;
- (4) analysing text organisation by looking for specific patterns; and

(5) classifying to facilitate comprehension of similarities and differences.

In Navés (2002), some of the most characteristics of successful CLIL programmes were summarised as follows:

- (1) Teachers exhibit active teaching behaviours such as giving instructions clearly, accurately describing tasks, maintaining learners' engagement in instructional tasks by maintaining task focus, pacing instruction appropriately and communicating their expectations for students' success.
- (2) In presenting new information teachers use appropriate strategies such as demonstrating, outlining, using visuals, building redundancy, rephrasing, scaffolding, linking new information to learners' previous knowledge and so on to make input comprehensible and context-embedded.
- (3) Teachers monitor students' progress and provide immediate feedback whenever required. They check comprehension constantly, achieving high levels of communication between teachers and learners and among learners themselves.
- (4) Effective instruction is aided by allowing learners to respond in a wide variety of ways: from verbal responses both in L1 and L2 to non-verbal responses (responding by doing) in early stages, but they are gradually expected to respond only in the Target Language (TL) once they show enough command of the TL. At the early stages, emphasis is on the development of receptive skills.
- (5) Consistent integration of cognitively demanding academic content and the TL. Cognitive abilities and processes such as identifying, comparing, drawing conclusions, finding similarities and differences and so on are integrated in the design of the programme.
- (6) Teachers respond to and use information from their students' home cultures, using cultural references, organising instruction to build upon participant structures from students' home culture, and observing the values and norms of students' home culture.
- (7) Task work includes: hands-on tasks, experiential learning tasks, problem-solving tasks and so on.
- (8) Collaborative learning, autonomous learning and self-directed learning are also suggested by some CLIL specialists.

Recently, de Graaff *et al.* (2007: 20) identified five main indicators for effective CLIL language teaching performance, as in:

- (1) Teachers facilitate exposure to input at a (minimally) challenging level by selecting attractive authentic materials, adapting texts up to the level of the learners and scaffolding on the content and language level by active use of body language and visual aids.
- (2) Teachers facilitate meaning-focused processing by stimulating the learners to request new vocabulary items, check their meaning, use

explicit and implicit types of corrective feedback on incorrect meaning identification and practice through relevant speaking and writing assignments.

(3) Teachers facilitate form-focused processing by giving examples, using recasts and confirmation checks, clarification requests and giving feedback (sometimes including peer feedback). No evidence was found of CLIL teachers providing explicit form-focused instruction, e.g. by explaining rules.

(4) Teachers facilitate output production by encouraging learners' reactions, working in different interactive formats and practising creative forms of oral (presentations, round tables, debates) and written (letters, surveys, articles, manuals) output production, suggesting communicatively feasible tasks, giving the learners enough time for task completion, encouraging learners to speak only in English, providing feedback on students' incorrect language use and stimulating peer feedback.

(5) Teachers facilitate the use of compensation strategies by stimulating students to overcome problems in language comprehension and language production, reflecting on use of compensation strategies, and scaffolding on-the-spot strategy use.

Cummins (2000) has called for a 'transformative/intercultural pedagogy' for language-minority students where students' language and cognitive abilities are engaged in the learning process and where students' identities are affirmed.

Conclusion

Integrating content and language is not new. It has been used for decades under different labels. Most of the early research on content and language integrated programmes – immersion programmes in Canada, bilingual education programmes in the USA – was concerned with proving that integrating content and language was not harmful, that it would not damage or slow down the acquisition of the learner's first language, second language or academic content. Now, almost 50 years after Canadian Immersion programmes were first thoroughly evaluated and then unanimously acclaimed, researchers still seem to feel the need to reaffirm that these programmes are not in fact harmful before daring to describe how successful they have been. Likewise, in the United States, in spite of the wealth of empirical research that confirms the success of properly implemented bilingual education programmes, researchers still feel it is necessary to present their rationale and to prove their success, time and time again, before proceeding to describe the characteristics of effective bilingual education programmes.

Nonetheless, in the last two decades, while in Europe and Asia the main emphasis is still on describing the rationale and benefits of implementing content and language integrated (CLIL) *approaches and methodologies*, in North America the emphasis has shifted to further investigating the characteristics of efficient immersion and bilingual education *programmes*.

As important as CLIL teaching methodology may be, it is just one among many other features efficient CLIL programmes have in common. The one feature that all efficient CLIL programmes share is that they are *programmes* of varying length that provide, nevertheless, a substantially greater and better exposure to the target language.

Efficient CLIL programmes – an umbrella term for immersion, content-based and bilingual education programmes in America, Europe and Asia – share the following 10 common characteristics: (1) respect and support for the learner's first language and culture; (2) competent bilingual teachers, that is, teachers fully proficient in the language of instruction and familiar with one of the learners' home languages; (3) mainstream (not pull-out) optional courses; (4) long-term, stable programmes and teaching staff; (5) parents' support for the programme; (6) cooperation and leadership of educational authorities, administrators and teachers; (7) dually qualified teachers (in content and language); (8) high teaching expectations and standards; (9) availability of quality CLIL teaching materials and (10) properly implemented CLIL methodology.

The defensive attitude that can be inferred from researchers' need to justify, time and time again, the rationale and benefits of integrating language and subject content rather than further investigating the commonalities of efficient CLIL programmes may have to do with pressure from (a) folk beliefs and prejudices against bilingualism and multilingualism and (b) political interests. As Cummins (1995: 63) put it more than a decade ago:

I argue (...) that the debate on bilingual education must be considered in the political contexts for two reasons: first, the research findings on the effects of bilingual education are both abundant and clear; the common perception that research is either largely unavailable and/or inadequate is a myth generated by strong vested interests. The second reason for examining closely the political context of the issue is that the educational changes required to reverse the pattern of language minority group school failure are essentially political changes because they involve changes in the power relations between dominant and dominated groups.

Acknowledgements

I wish to express my thanks to the Catalan Department of Education for the pilot Barcelona content-based programme I coordinated with Margarita

Ravera and Cristina Riera for four years (1994–1998). I am also deeply in debt with Professor Ofelia García and James Purpura from Columbia University for having invited me to observe inspiring BE classes in NYC in fall 2007.

References

- Brinton, D., Snow, M.A. and Wesche, M.B. (1989) *Content-Based Language Instruction*. New York: Newbury House.
- Canadian Council on Learning (2007) French-immersion education in Canada. *Lessons in Learning*. On WWW at http://www.ccl-cca.ca/CCL/Reports/LessonsInLearning/LinL20070517_French_Immersion_programs.htm.
- Center for Applied Linguistics (2007) Directory of two-way bilingual immersion programs in the U.S. On WWW at <http://www.cal.org/twi/directory/>
- Clewell, B. and Campbell, P. (2004) *Highly Effective USI Schools: An Outlier Study*. Washington: The Urban Institute/Campbell-Kibler.
- Cloud, N., Genesee, F. and Hamayan, E.V. (2000) Critical features of enriched education. In N. Cloud, F. Genesee and E.V. Hamayan (eds) *Dual Language Instruction. A Handbook for Enriched Education* (pp. 9–24). Boston, MA: Heinle & Heinle.
- Collier, V.P. (1992) A synthesis of studies examining long-term language minority student data on academic achievement. *Bilingual Research Journal* 16, 187–212.
- Collier, V.P. (1995) Acquiring a second language for school. *Directions in language and education. National Clearinghouse for Bilingual Education* 1 (4), 1–12.
- Council Resolution of 31 March 1995 on improving and diversifying language learning and teaching within the education systems of the European Union. *Official Journal C* 207 of 12.08.95.
- Crawford, J. (1999) *Bilingual Education. History, Politics Theory and Practice* (4th edn revised and expanded). Los Angeles, CA: Bilingual Educational Services.
- Crawford, J. and Krashen S. (2007a) *English Learners in American Classrooms: 101 Questions, 101 Answers*. Los Angeles, CA: Scholastic.
- Crawford, J. and Krashen, S. (2007b) English learners 101. *Language Magazine* 7 (2), 20–21.
- Cummins, J. (1981) *Bilingualism and Minority Language Children*. Toronto: Ontario Institute for Studies in Education.
- Cummins, J. (1984) *Bilingualism and Special Education: Issues in Assessment and Pedagogy*. Clevedon: Multilingual Matters.
- Cummins, J. (1992) Bilingualism and second language learning. *Annual Review of Applied Linguistics* 13, 51–71.
- Cummins, J. (1995) Bilingual education and anti-racist education. In O. García and C. Baker (eds) *Policy and Practice in Bilingual Education. Extending the Foundations. Bilingual Education and Bilingualism* 2 (p. 280). Clevedon: Multilingual Matters.
- Cummins, J. (1996) *Negotiating Identities: Education for Empowerment in a Diverse Society*. Ontario: California Association for Bilingual Education.
- Cummins, J. (2000) *Language, Power, & Pedagogy: Bilingual Children Caught in the Cross-Fire*. Clevedon: Multilingual Matters.
- Dalton-Puffer, C. (2007) *Discourse in Content and Language Integrated Classrooms*. In C. Dalton-Puffer and U. Smit (eds) *Critical Perspectives in CLIL Classroom Discourse*. Frankfurt: Peter Lang.
- Dalton-Puffer, C. and Smit, U. (eds) (2007) *Critical Perspectives in CLIL Classroom Discourse*. Frankfurt: Peter Lang.

- De Graaff, R., Koopman, G.J., Anikina, Y. and Westhoff, G. (2007) An observation tool for effective L2 pedagogy in Content and Language Integrated Learning (CLIL). *International Journal of Bilingual Education and Bilingualism* 10 (5), 603–624.
- European Commission, Directorate-General for Education and Culture, Vocational Training & Language Policy (2005) *Europeans and Languages: A Eurobarometer Special Survey. B-1049*. Brussels: European Commission.
- European Commission (1995) *White Paper on Education and Training. Teaching and Learning. Towards the Learning Society*. Brussels: European Commission.
- Ferguson, G. (2006) *Language Planning and Education*. Edinburgh: Edinburgh Press.
- García, O. (2008) *Bilingual Education in the 21st Century: A Global Perspective*. London: Basil Blackwell.
- García, O., Kleifgen, J. and Falchi, L. (2008) *Equity Perspectives: From English Language Learners to Emergent Bilinguals*. New York: Campaign for Educational Equity: Teachers College, Columbia University.
- Genesee, F., Lindholm-Leary, K., Saunders, W.M. and Christian, D. (2006) *Educating English Language Learners*. New York: Cambridge University Press.
- Greene, J. (1998) *A Meta-Analysis of the Effectiveness of Bilingual Education*. Claremont, CA: Tomas Rivera Policy Institute. The Public Policy Clinic of the Department of Government University of Texas at Austin Program on Educational Policy and Governance at Harvard University.
- Intercultural Development Research Association (2002) IDRA Newsletter. On WWW at http://www.idra.org/IDRA_Newsletter/March_2002/Self_Renewing_Schools_Access_Equity_and_Excellence/.
- Jeynes, W.H. (2005) A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education* 3 (40), 237–269.
- Krashen S.D. (1982) *Principles and Practice in Second Language Acquisition*. Oxford/New York: Pergamon.
- Krashen, S. (1991) Bilingual education: A focus on current research. *Focus, Occasional Papers in Bilingual Education* 3. On WWW at <http://www.ncela.gwu.edu/pubs/focus/focus3.htm>.
- Krashen, S. (1997) Why bilingual education? *ERIC Digest* (p. 4). Charleston, WV: ERIC/CRESS.
- Krashen, S. (1998a) Bilingual education and the dropout argument. *Discover*. On WWW at <http://www.ncela.gwu.edu/pubs/discover/04dropout.htm>.
- Krashen, S. (1998b) Heritage language development: Some practical arguments. In S. Krashen, L. Tse and J. McQuillan (eds) *Heritage Language Development* (pp. 3–13). Culver City, CA: Language Education Associates.
- Krashen, S. and Biber, D. (1988) *On Course: Bilingual Education's Success in California*. Sacramento: California Association for Bilingual Education.
- Lightbown, P.M. and Spada, N. (2006) *How Languages are Learned* (2nd revised edn). Oxford: Oxford University Press.
- Lindholm-Leary, K.J. (2001) *Dual Language Education*. Clevedon: Multilingual Matters.
- Littlewood, W. (2004) The task-based approach: Some questions and suggestions. *ELT Journal* 58 (4), 319–326.
- Littlewood, W. (2007) Communicative and task-based language teaching in East Asian classrooms. Revised version of plenary paper presented at the International Conference of the Korean Association for Teachers of English, Seoul, Korea, in June 2006. *Language Teaching* 40 (3), 243–249.

- Long, M.H. (1990) Maturation constraints on language development. *Studies in Second Language Acquisition* 12, 251–285.
- Mahone, A. (1985) Bilingual education instructional and training materials. Field Test Results and Final Phase II Report. On WWW at http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/13/b2/36.pdf.
- Marsh, D. and Langé, G. (eds) (1999) *Implementing Content and Language Integrated Learning. A Research-Driven TIE-CLIL Foundation Course Reader*. Jyväskylä, Finland: Continuing Education Centre, University of Jyväskylä on behalf of TIE-CLIL (European Lingua Project).
- Marsh, D. and Langé, G. (eds) (2000) *Using Languages to Learn and Learning to Use Languages*. Jyväskylä, Finland: UniCOM, University of Jyväskylä on behalf of TIE-CLIL.
- Montague, N.S. (1997) Critical components for dual language programs. *Bilingual Research Journal* 21 (4), 334–342.
- Montemayor, A.M. (2004) Excellent bilingual early childhood programs? A parent guide. *IDRA Newsletter*, May (p. 8). On WWW at http://www.idra.org/IDRA_Newsletter/May_2004_Self-Renewing_Schools_Teaching_Quality/Excellent_Bilingual_Early_Childhood_Programs/.
- NABE (National Association for Bilingual Education) (2004) What is Bilingual Education? On WWW at <http://www.nabe.org/education/index.html>.
- Navés, T. (2002) Successful CLIL programmes in Navés, T. Muñoz, C. and Pavesi, M. Module 2: Second language acquisition for CLIL. In G. Langé and P. Bertaux (eds) *The CLIL Professional Development Course* (pp. 93–102). Milan: Ministero della Istruzione della Università e della Ricerca. Direzione Regionale per la Lombardia.
- New Jersey State Dept. of Education, T. D. o. C. B. E. (1984). *Effective Practices for Successful Bilingual Parent Involvement Programs: An Administrator's Handbook*. P.T.M. No. 400.20.
- Navés, T. and Muñoz, C. (1999) Implementation of CLIL in Spain. In D. Marsh and G. Langé (eds) *Implementing Content and Language Integrated Learning. A Research-Driven TIE-CLIL Foundation Course Reader* (pp. 145–158). Jyväskylä, Finland: Continuing Education Centre, University of Jyväskylä on behalf of TIE-CLIL (European Lingua Project). On WWW at <http://www.ub.es/filoan/addendumen.html>.
- Numrich, C. (1989) Cognitive strategies for integrating ESL and content area instruction. ERIC Education Resources Information Center (ED314959) (ERIC Document Reproduction Service No. ED 314 959).
- Nunan, D. (2004) *Task-Based Language Teaching*. Cambridge: Cambridge University Press
- Oakes, J. (2002) *Access to Textbooks, Instructional Materials, Equipment, and Technology: Inadequacy and Inequality in California's Public Schools (October 1, 2002)*. UCLA's Institute for Democracy, Education, & Access. Williams Watch Series: Investigating the Claims of *Williams v. State of California* (Paper wws-rr001-1002).
- Office of Bilingual Education and Minority Languages Affairs (OBEMLA). Department of Education. On WWW at <http://www.ed.gov/offices/OBEMLA/>.
- Quezada, M.S., Wiley, T.G. and Ramírez, J.D. (2000) How the reform agenda short-changes English learners. *Educational Leadership* 57 (4), 57–61.
- Ramírez, J.D. (1992) Executive summary. *Bilingual Research Journal* 16 (1), 1–62.
- Richards, J.C. (2005) *Communicative Language Teaching Today*. Singapore: RELC.
- Robledo, M. and Cortez, J.D. (2002) Successful bilingual education programs: Development and the dissemination of criteria to identify promising and exemplary practices in bilingual education at the national level. *Bilingual Research Journal* 26 (1), 1.

- Robledo, M. and Goodman, C. (eds) (2002) *IDRA Newsletter*. On WWW at http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/a1/ee.pdf.
- Robledo, M., Cortez, J. and Intercultural Development Research Association, S.A.T.X. (2004) *Successful Bilingual Education Programs*. *IDRA Newsletter: Intercultural Development Research Association*. On WWW at <http://brj.asu.edu/v261/pdf/ar2.pdf>.
- Sanders, W.L. and Rivers, J.C. (1996) *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement*. Knoxville: University of Tennessee Value-Added Research and Assessment Center.
- Stern, H.H. (1972) Introduction. In M. Swain (ed.) *Bilingual Schooling: Some Experiences in Canada and the United States* (pp. 1–6). Toronto: OISE Press.
- Swain, M. (2000) French immersion research in Canada: Recent contributions to SLA and applied linguistics. *Annual Review of Applied Linguistics* 20, 199–212.
- Swain, M. and Johnson R.K. (1996) Discovering successful second language teaching strategies and practices: From programme evaluation to classroom experimentation and a response. *Journal of Multilingual and Multicultural Development* 17 (2), 89–104.
- Swain, M. and Lapkin, S. (1982) *Evaluating Bilingual Education: A Canadian Case Study*. Clevedon: Multilingual Matters.
- Thomas, W.P. and Collier, V. (1997) School effectiveness for language minority students. NCBE Resource Collection Series, No. 9. National Clearinghouse for Bilingual Education, BBB27896.
- Tikunoff, W.J. (1983a) An emerging description of successful instruction: Executive summary of part 1 of the SBIF study. (ERIC Document Reproduction Service ED 297 561).
- Tikunoff, W.J. (1983b) *Significant Bilingual Instructional Features Study*. San Francisco, CA: Far West Laboratory.
- Tikunoff, W.J. and Vázquez-Faria, J.A. (1982) Successful instruction for bilingual schooling. *Peabody Journal of Education* 59 (4), 234–271.
- Tucker, G.R. (1999) A Global Perspective on Bilingualism and Bilingual Education. *ERIC Digest*. *ERIC Clearinghouse on Languages and Linguistics*. Washington, DC (ERIC 1-800-LET-ERIC ED435168).
- Van de Craen, P. and Pérez-Vidal, C. (eds) (2003) *The Multilingual Challenge/Le défi Multilingue*. Barcelona: Printulibro.
- Walqui, A. (2006) Scaffolding instruction for English learners. A conceptual framework. *International Journal of Bilingual Education and Bilingualism* 9 (2), 159–180.
- Willig, A.C. (1985) A meta-analysis of selected studies on the effectiveness of bilingual education. *Review of Educational Research* 55 (3), 269–317.
- Wong-Fillmore, L. and Valadez, C. (1986) Teaching bilingual learners. In M. Wittrock (ed.) *Handbook on Research on Teaching* (pp. 648–685). Washington, DC: American Educational Research Association.
- World Bank (1995) *Priorities and Strategies for Education*. Washington, DC: The International Bank for Reconstruction and Development.
- Zehler, A., Fleischman, H.L., Hopstock, P., Stephenson, T., Pendizick, M. and Sapru, S. (2003) Descriptive study of services to LEP students and LEP students with disabilities. Research Report.

Chapter 3

Developing Theories of Practices in CLIL: CLIL as Post-method Pedagogies?

ROLF WIESEMES

Introduction

This chapter reviews CLIL theories in relation to practices as a means to examine how CLIL research and practices need to be combined in order to prevent CLIL practices to become another ‘buzz’ word that appears in foreign language learning without fundamentally addressing key questions concerning (language) learning processes as well as maintaining and developing CLIL quality.

CLIL is currently seen as a means for achieving ‘mother tongue + 2’ multilingualism. This ambitious goal can be supported through adequate training provisions and related theoretical and practical frameworks such as Coyle’s four Cs (Coyle, 2002, 2006, 2007).

In the first part of this chapter, I will present one example of a CLIL pilot project in England where CLIL trainers and teachers started to combine theories and practices. I will present some key findings from the project and relate CLIL theories and practices using an example of implementing Coyle’s four Cs in newly created CLIL settings. This will be followed by a short review of project findings where I join up and review CLIL theories and practices.

In the final section of this chapter, I outline how the four Cs framework can be located in an overarching framework of emerging theories of practices such as the ones promoted by van Lier (1994, 1996) and Kumaravadivelu (2001, 2006) in foreign language teaching and argue for the need for ongoing debates between CLIL theorists and practitioners.

CLIL Practices in the UK: The Content and Language Integration Project (CLIP)

Introduction

The findings presented here are a summary of research conducted as part of the Content and Language Integration Project (CLIP) run jointly by the Centre for Information on Language Teaching (CILT) and CLIL trainers from the School of Education at the University of Nottingham.

CLIP came about as an outcome of the Nuffield Languages Inquiry. One of the recommendations of the Nuffield Inquiry (Nuffield Foundation, 2000), which reviewed the state of foreign language teaching in the United Kingdom in 1999–2000, was that there should be a nationally coordinated programme of Content and Language Integrated Learning (CLIL) in the United Kingdom. This recommendation was subsequently taken up by the then Department for Education and Skills (DfES, now called the Department for Children, Families and Schools) as outlined in the *Languages for All* documentation (CILT, 2002). With financial support from the DfES, CILT piloted in collaboration with CLIL trainers from the School of Education at the University of Nottingham, a three-year programme for developing with teachers a range of CLIL approaches both at primary and secondary school levels in collaboration with eight schools representing a variety of regions, student populations, teachers (both language teachers and subject specialists) and subjects.

CLIP was based on the key premise that CLIL programmes not only raise the competence of pupils in foreign languages, but also affect attitudes to language learning and content learning more widely as described in the Nuffield Inquiry (Nuffield Foundation, 2000). This is in line with findings reported previously in the Canadian immersion context (Genesee, 1987). At the same time, CLIP needs to be considered within the context of a decrease in foreign language learning in English secondary schools from 57–30% with the biggest drop in German and French (CILT, 2004). Languages of instruction varied from one participating school to another, but were overwhelmingly French, German and Spanish in combination with geography, history and citizenship in years 6–10.

CLIP was evaluated at two levels – first, by participating schools using both quantitative (such as test results) and qualitative (lesson observations) data collection methods. Second, CLIP was evaluated by a research team based at School of Education at the University of Nottingham complementing the school data by qualitative data from semi-structured interviews with participating learners, teachers and trainers as well as lesson observations from one participating inner London comprehensive school. The data were analysed using context-based analysis (van Lier, 1988: 2). The data presented here constitute a synthesis of research findings.

An overview of CLIP findings

CLIP aimed to explore how best to support participating teachers in the development and implementation of their CLIL curricula and how to explore alternatives to current topic teaching to 11–15-year-old learners in order to engage learners more in language learning at a more appropriate cognitive level as pointed out in the Nuffield Inquiry (Nuffield Foundation, 2000: 46):

Good opportunities are being wasted. Measures to improve pupils' enjoyment and interest in language learning could be taken but overwhelmingly are not. Bilingual teaching – where subjects such as History or Geography are taught in the foreign language – remains a rarity, and no accreditation is available for such courses. [...] While specialist Language Colleges are increasingly making progress in these directions, other schools desperately need help. (Nuffield Foundation, 2000: 46)

As part of CLIP it was considered as vital to use CLIL as a means to develop and examine existing related classroom practices. This is reflected in one of the CLIP trainer's interview comments below:

Actually what we're talking about is good teaching and learning, always and that a lot of what CLIL is about is simply reflecting that, only with a foreign language element. And if we do use that model, we normally start off by saying, everybody can see that content and cognition are part of every teacher's toolkit, in that you have a certain content that's part of your lesson and you want to have children thinking to make sense of what's going on and hopefully developing their understanding. [...] In fact, when people really think about it, they realise that language [...] is just as important whether it's first or second language, because you can't do those things without language.

In this sense, the role of language for learning is considered to be at the core of learning. At a more applied level, this implies that the role of language in combination with meaningful content and the related cognitive challenges and demands on learners is crucial. Some of the pupils from CLIP schools commented on the role of language in combination with content:

- Pupil 1:** It is better than normal French [...], because I think we still learn all the basic things, but we learn geography as well, so [we] learn more. And the lessons all follow our geography lessons, so we learn more about geography as well.
- Pupil 2:** It's about the whole world, so you learn about why people learn French and why they speak French [...]. You know why that happened and that benefits school work and education.

Pupil 3: It is harder to learn like this, especially at the beginning, but if it makes you concentrate more, then you learn it better, and so it is better to do it this way.

In general, the teacher trainers argue for CLIL by using it as an example of good teaching and learning practices in general. This is also supported by comments made by pupils from CLIP schools as illustrated above.

CLIL benefits are reflected both in the value-added data and in relation to overall learner motivation. One of the CLIP teachers commented on this:

The value added was greater, interestingly enough, amongst the less able [...]. It certainly isn't a case of 'It's only something for the elite, for the clever ones.' No question about that. There's all sorts of benefits and hopefully a lot more still to be seen, because we're in a comparatively early stage.

While it is difficult to generalise from the limited CLIP findings, this is in line with research findings from some other CLIL classrooms in England (Wiesemes, 2002). These beneficial effects of CLIL might be due to a range of factors such as increased support for learners, more visual support materials and non-linguistic context, which could serve as a motivator for some learners. In this sense, CLIL has moved away from being somewhat elitist to becoming an inclusive curriculum.

Narrowing down generic arguments about the need for an increase in content in foreign language lessons (see for example, Bragger & Rice, 1999; Burden & Williams, 1998; Coyle, 2002; Fruhauf *et al.*, 1996; Marsh, 2002), it is necessary to examine CLIL in relation to the use of the foreign language in a subject classroom and as part of wider language learning agenda. In this area, interview data from teachers and trainers involved in CLIP suggest that

- CLIL needs to be considered as part of an overall strategic development and reconceptualisation of teaching and learning in secondary schools.
- CLIL needs to be considered as part of a larger overhaul of foreign language teaching as well as teaching and learning in general.
- CLIL requires language and the use of language in classrooms to be revised as well as the surrounding support mechanisms for language planning and language use.

Considering these issues is crucial for successful CLIL implementation, CLIL planning (both at a macro- and at a micro-level) and CLIL classroom delivery.

Teaching content through a foreign language without a change in classroom pedagogy does not raise standards. CLIP lesson observations revealed a range of classroom practices that varied from outstanding with

extremely well-delivered interactive lessons to fairly poor and uninspiring lessons. In this sense, the 'CLIL quality challenge' (Coyle, 2007: 47–58) is crucial. I will review this in more detail in the section 'Key principles of the CLIP training'.

Equally, our interview data indicate that the cross-fertilisation effects of developing CLIL approaches are not to be underestimated. Successful implementation of CLIL approaches requires constant dialogue across departments. This cross-curricular dialogue impacts on all departments involved:

- CLIL approaches allow to break down departmental barriers through developing the need for dialogue on pedagogical issues and principles that apply through all subject areas.
- While CLIL approaches were applied successfully in a range of CLIP secondary schools, CLIL approaches still tend to suffer from the (mis-construed) perception that they are only applicable in elitist settings.

Initially, the major practical concern of the CLIP teachers was to produce and develop appropriate learning and teaching materials for the delivery of the CLIL curricula as set up by the individual CLIP schools. The trainers' concern was to set out an initial pedagogic framework and to build up an understanding of both the theoretical and practical implications of CLIL classroom practice. While the teachers' immediate concern with materials development is understandable, it is equally crucial to design these materials with an awareness of CLIL pedagogies in order to ensure successful delivery of CLIL in schools.

Our research findings indicate that combining theory and practice seem to be crucial for 'normalising' CLIL in a manner that ensures successful delivery of CLIL lessons.

- CLIL implementation is most successful when teachers are willing to start thinking outside their field and consider key issues such as learner talk and scaffolding learning as a means to support their delivery of CLIL lessons.
- CLIL training enables both language and subject teachers to develop innovative ways to deliver their curricula in a way that ensures accessibility of content to ALL learners.

Normalising CLIL requires first of all a pedagogical framework that allows successful delivery of lessons in a range of settings. Normalisation of CLIL also has to mean replicability in a range of settings. The CLIP project findings indicate that this process demands commitment from various decision makers within schools:

- CLIL is only sustainable if the teachers delivering the new curriculum are trained and supported both internally and externally.

- CLIL requires willingness by teachers to examine and possibly change their individual and departmental practices. Related to this, it is equally important for teachers to be able to develop curricular materials that are sufficiently adaptable and flexible to be incorporated into their daily practices. This in turn requires time and commitment from teachers.
- CLIL demands also – just like any other innovation – support and genuine commitment at departmental and senior management level as a worthwhile initiative as a means to raise achievement across the ability range. This commitment entails for each school to allow CLIL teachers time for materials development, piloting, trialling and researching their own practices and learner achievement.

CLIP research findings collected both by schools and by the overarching project evaluation team indicate that

For learners

- CLIL contributes to raising motivation.
- CLIL contributes to raising standards in Modern Foreign Languages.
- CLIL tends not to have any negative effects on subject learning.

While these findings confirm previous research (Wiesemes, 2002) conducted in individual CLIL classroom settings in England, it is important to note that for CLIL to have a positive impact on learners it is necessary to consider how these effects can be achieved and maintained. The CLIP evaluation data indicate a complex interplay between CLIL practices and theories, which will be reviewed in more detail in the section ‘Key principles of the CLIP training’.

For teachers

- CLIL has an impact on communication of ideas across departments and contributes to the development of cross-curricular links.
- CLIL allows Modern Foreign Languages (MFL) teachers to enrich their traditional teaching with content elements that in turn have a positive effect on learner achievement and motivation.
- CLIL allows subject teachers to develop their pedagogies in relation to language use in the mother tongue classroom.
- CLIL raises motivation of both MFL and subject teachers through constant and renewed professional dialogue.

So far, I have focused on presenting a short overview of CLIP findings. In the following section, I review the effects of CLIP on learners’ foreign language capability.

Improving learners' foreign language capability

The second key aim of CLIP was to establish if CLIL improves learners' foreign language capability in the English context. Although the positive effects on language capability in established curricula, such as in immersion sections in Canada (see for example, Cummins & Swain, 1986; Genesee, 1978, 1987) or in established CLIL sections in English schools (see for example, Coyle, 2002, 2005; Wiesemes, 2002), have been confirmed, this still has to be demonstrated in the wider English context.

The findings from CLIP indicate that CLIL is successful.

It is difficult to assess the linguistic benefits of a CLIL programme in isolation from its content. CLIP research data, in particular teacher and learner interviews and lesson observations, confirm that

- CLIL allows learners to use language in a range of different and more complex ways.
- CLIL learners tend to have higher levels of comprehension skills than traditional MFL learners.
- CLIL learners are enabled to deal with complex information given to them in the target language.
- CLIL learners' strategic foreign language skills are better developed – they deal with larger amounts of information and tend to focus less on word by word comprehension of the target language.
- CLIL learners tend to develop better speaking skills due to a large extent to the variety of language being presented and used in class.
- CLIL learners tend to use the target language more in their classrooms.

CLIL is also motivating. Reasons for an increase in motivation are manifold, but can be summarised as follows:

- CLIL increases learner confidence.
- CLIL makes learners feel 'special' in a positive sense.
- CLIL takes learners seriously by confronting them with challenging, but accessible content through scaffolded content delivery.

CLIP research data indicate that successful CLIL curricula offer learners a range of positive learning experiences that can lead to higher motivation and higher achievement in the foreign language.

CLIL raises learner motivation, because the learners are challenged in a way that allows all learners to follow a different and difficult curriculum. CLIL also allows learners to become interested in the content with a particular focus on countries and cultural information. CLIL contributes to the development of social skills, group skills, (classroom) talk skills and generally cooperative learning skills that are key to effective teaching and learning. CLIL contributes to raising learner achievement, especially for less able pupils. Effective CLIL practice allows for the combined

development of thinking skills as well as a cognitively deeper coverage of the programme of study content.

These general benefits contribute indirectly to improve learners' foreign language capability.

Finally, our research findings indicate that CLIL approaches contribute to the further development of integrated curricula that cross subject-boundaries and allow both teachers and learners to view the curriculum as an organic whole rather than as a series of unrelated subjects. CLIL approaches not only offer increased performance of learners in the foreign language as illustrated in previously reported research findings (see for example, Cummins & Swain, 1986; Genesee, 1978, 1987), but also contributes to creating opportunities for cross-curricular work where teaching and learning content through a foreign language is the norm rather than the exception.

CLIP research findings also illustrate that successful CLIL pedagogies require change of practice for the teachers as well as for the learners. It is useful here to refer to lesson observation data that focus on unsuccessful CLIL practices and that were highlighted by CLIL learners in a post-lesson interview. In this unsuccessful CLIL lesson, the teacher was delivering the lesson – though content based – as a traditional MFL lesson, which the learners were able to identify in the post-lesson interview. In other words, CLIL is NOT about solely adding small amounts of content into MFL lessons or conducting subject lessons in a foreign language. For CLIL pedagogies to be successful, it is necessary to integrate foreign language and subject-specific skills. In this sense, CLIL requires a rethinking of classroom practices in relation to the subject and language content of the lesson. This will demand from teachers to re-examine established teaching practices in order to ensure successful delivery of both subject- and language-specific lesson content.

In summary, integration of support mechanisms for CLIL learners – at a range of levels – is vital for successful CLIL lesson delivery. Support needs to be built into the curriculum in the form of linguistic support, visual support, cognitive support and general support. Combining these various forms of support allows in turn for learner confidence to increase and for learners to enjoy their CLIL experiences, which offer them an enriched curriculum experience and can contribute to learning and motivational gains for all learners. Although it is important to consider the learners to be at the centre of implementing successful CLIL practices, it is also crucial to consider the challenges that CLIL teachers face. I review these in the following paragraphs.

The number of schools in England with CLIL sections is currently fairly limited. Although existing CLIL sections continuously contribute to raising standards in modern foreign languages and other subject areas, this is happening in schools and departments that are willing to take risks

and develop a range of innovative practices in various curriculum areas. CLIL sections are successful to a large extent due to some teachers' willingness to explore innovative ways of teaching with the support of school management, language and subject teachers and in spite of a lack of a framework for CLIL in England. These innovative ways of teaching can manifest themselves in a range of practices. However, overall, I argue that these practices are the result of reflective practices of teachers who are able and willing to develop their theories of practices in their classrooms. I consider these reflective practices to be at the core of successful CLIL and will examine one particular example of such teacher practices in the following section in more detail.

Overall, our findings support previous CLIL research. As has become clear, internal and external supports are vital for CLIL implementation and development. At the same time, I would argue that another crucial condition for implementing and developing CLIL are teachers' beliefs. In the next section, I therefore present a brief analysis of how teachers can be supported in developing practical CLIL theories and theorised CLIL practices using the CLIP training framework, Coyle's four Cs.

Key principles of the CLIP training: The four Cs curriculum – linking theories and practices?

The CLIP training programme was put into action by CLIL teacher trainers based at the University of Nottingham's School of Education.

Overall, the training was based on the four Cs curriculum (content, communication, cognition and culture). Coyle (2006: 13–14) describes the four Cs curriculum as follows:

The first principle places successful content or subject learning at the very heart of the learning process. However, more traditional transmission models for content delivery which conceptualise the subject as a body of knowledge to be transferred from teacher to learner may no longer be appropriate. The symbiotic relationship between language and subject understanding demands a focus on how subjects are taught whilst working with and through another language rather than in another language. The shift has brought with it a need to re-define 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.

Although Coyle does not discuss examples of content, she raises key points about the need of teaching methodologies to encourage engagement

and interactivity. In this sense, teacher development is central in Coyle's model. Coyle's second C stands for 'communication':

The second principle defines language as a conduit for both communication and learning. From this perspective, language is learned through using it in authentic and unrehearsed yet 'scaffolded' situations to complement the more structured approaches common in foreign language lessons. It also builds on the language learned and practiced in those lessons by providing alternative opportunities to develop a wide range of language skills, strategies and competences needed to function in everyday plurilingual situations. [...] 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. [...].

Coyle points out clearly that she considers language to be primarily a tool for communication in motivating and meaningful contexts. The third C focuses on the cognitive challenge:

The third principle is that CLIL should cognitively challenge learners – whatever their ability. It provides a setting rich for developing thinking skills in conjunction with both basic interpersonal communication skills (BICS) and cognitive-academic language proficiency (CALP). Research suggests that these challenges encourage thinking to take place in different languages and at a deeper level of inter-cultural understanding involving both *savoir faire* and *savoir être*.

Finally, Coyle refers to the fourth C – culture. Culture is probably the most difficult and the most vague element in Coyle's model.

The fourth principle embraces pluriculturality. Since language, thinking and culture are inextricably linked, then 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. (Coyle, 2006: 13–14, emphasis added)

Coyle summarises the potential impact of these four Cs – content, communication, cognition and culture – in the following manner:

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. (Coyle, 2006: 14)

The four Cs model has been developed and used by teacher trainers at the School of Education/University of Nottingham both for initial teacher education and continuous professional development (CPD) purposes and has been developed further as an explicit means for maintaining and expanding CLIL quality in tandem with teacher professional development (Coyle, 2007).

Coyle considers the four Cs curriculum as a practical theory that can be applied as a planning and conceptualising tool for CLIL practitioners. Equally, it is important to consider the four Cs – content, communication, cognition (or cognitive challenge) and culture – not as separate, but as closely interrelated principles ensuring a strong pedagogical basis for the planning and delivery of CLIL and contributing to the development of a more integrated approach to the curriculum. The following teacher interview excerpts illustrate the four Cs curriculum in practice:

I think the programme of study and particularly the part of the programme of study which highlights the *cultural awareness*, the comparison between countries, the contact with native speakers [...] and so forth is doable within languages but often is [...] not drawn out enough. We become quite focused on the language stuff and the *culture* becomes subsumed within other things, so I think this [CLIP] approach allows us to draw that out so it's almost on an equal level because you can't teach, for instance, you can't teach about development without looking at a country and in this case, we look at Burkina Faso and France, so you're already forced to look at the cultures and compare [...]. So I think that also draws out other ways of thinking, the *cognitive stuff*, the different areas of the brain, I guess, are being used because you're not just asking 'what is this' in French, you're asking 'what is the answer to this' in French, so it requires some thinking, as in, which is the development indicator which shows you that Burkina Faso is less economically developed than France, so they're having to think about things more and in some ways, the language becomes subsumed within the thinking skills. So it's *language to answer a question rather than language for the sake of language* and I know that belittles somewhat what we do because when you ask a kid 'what do you do at the weekend' okay, they will have to think [...] but the *thinking*, it was a different level and I think that's deeper because it requires some *cultural understanding*, you have to understand that their reason for having an animal is different and also you're learning the language along the way and it's contributing to the understanding of that culture and what those people are like. I think the kids would leave that lesson [...] with a deeper understanding of those people than if we'd just done it in the normal way.

It is clear from the above interview excerpt that – in spite of initial problems with developing the CLIP training programme – the four Cs curriculum as an organising and planning tool allows CLIL teachers (and other teachers) to focus, examine and evaluate their planning and lesson delivery both on a macro- and a micro-level.

In summary, the practical applications of the four Cs curriculum allow for constant and meaningful *contextualisation* of CLIL content in lessons, which is illustrated further by the following interview quote from a CLIP teacher:

Everything is contextualised [...]. The language is for a purpose rather than language for the sake of language. [...] I think it makes the language a bit more practical in some senses, in a different way, but they're also learning about the people, the culture, the country, whatever the content, whether its geography, whether it be science [...] you're getting an insight into the country and the people and I think those benefits are great.

Although using the four Cs curriculum as a planning and lesson delivery tool allows for constant contextualisation within CLIL lessons, the cross-fertilisation effects of developing CLIL approaches are not to be underestimated. Successful implementation of CLIL approaches requires constant dialogue across departments. This cross-curricular dialogue impacts on *all departments* involved:

One thing, it's an area I've discovered along the way, because I have to go and speak to geography and they suggest – just some of the little ideas they have for teaching things, when they were teaching about north, south, east, west, it's a thing we do in languages anyway, by getting kids standing up and they had to point in the direction and things like having these blow up globes and doing things and having string and using Ordnance Survey maps and there's a lot more kinaesthetic stuff taking places, a lot of research, you've got to go to the computer and find this information, it's producing a lot more extended language because they have to always say why. [...] I think for me as a teacher, I've learnt some different ways of doing this and I think that impacts a bit on how you teach the language. [...] It brings different ideas in and so I think the benefits for teachers are learning from another curriculum area and how they do things and I think there's a bit of that for them as well because some of the things I've given to them that we've made, just so they've got it on record because if people come in, it's nice for them to show what's happening in geography down here. I think sometimes the way that we teach the core language, in the way that we always teach language, with flashcards or whatever or certain games and OHP and putting things on and

hiding them, they've taken some of those ideas on [...]. So you start to share experience, which in my experience rarely takes place between departments.

In summary, the four Cs curriculum in practice has the following key features:

- The four Cs curriculum as a framework for conceptualising CLIL is both highly theoretical and highly practical as an organising and planning tool.
- Once appropriated, this dual application of Coyle's framework allows CLIL teachers (and other teachers) to focus, examine and evaluate their planning and lesson delivery.
- The four Cs curriculum can be applied both on a macro- (whole school) and a micro-level (classroom).

It is also vital to consider the development of a more integrated approach to the curriculum as a particular form of CPD. CPD is described on the TeacherNet website as 'central to the transformation agenda and has a key role to play in raising standards by improving the teaching and learning that takes place in our schools' (<http://www.teachernet.gov.uk/management/atoz/c/cpd/>). Of course, it is clear that any kind of school improvement is ultimately to be aimed at improving learning and learners' performance. While this remains true for CLIP, it is also important to consider CLIP as a CPD programme for all teachers. Fisher and Wilkinson (2002) and Leat (1998) refer to powerful pedagogical strategies (PPS). Although CLIL approaches tend to be less explicit than the model suggested by Leat, the four Cs curriculum model (described above) offers a framework that takes into account teachers' personal professional theories within their teaching environments.

In summary, CLIL is motivating for teachers, if it allows and enables them to re-think their classroom pedagogies, and raises teachers' personal content interests. The CLIP trainers summarise this process as follows:

It's all to do with CLIL teachers and basically, all teachers are teachers of language [...]. A CLIL teacher really should try to make themselves redundant, because what we're not trying to work towards is a dependency culture and so as much of what goes on in CLIL classrooms has got to be about how you discover something if you don't know it already and in the words of Hugo Beardsmore, I think it's really genuinely true to say that bilingual education isn't about becoming bilingual, it's about getting a good education.

In summary, the training approach developed by the CLIP trainers reflects a commitment of the trainers to allow the CLIP teachers to develop their own practices while offering them a training framework, the four Cs

curriculum, which allows teachers to 'frame' and develop their practices through the application of the four Cs. In this sense, the four Cs curriculum allows and demands to be appropriated by its users. This training model allows for a parallel development of training and lesson delivery. At the same time, although teachers profit from their CLIL training as individual professionals, it is important to stress that ultimately CLIL's foremost aim is to allow learners to get a good education. Considering the four Cs curriculum as both a practical and a theoretical tool contributes indirectly to potential learner benefits:

- by seeing the curriculum as a whole rather than as a succession of separate subject areas;
- by developing CPD and establishing professional dialogue with colleagues in other departments;
- by offering MFL departments and partner departments through joint planning a framework for discussions about teaching and learning issues;
- by allowing teachers to learn from each other and with each other; and
- by bringing in new ideas and implementing them in a range of varied settings.

The use of the four Cs framework as both theory and practice illustrates the opportunities that the concrete and desired interactions between theories and practices development create. I would argue that this theory–practice interaction signals a shift in CLIL [and Second Language Acquisition (SLA)] away from somewhat fixed ways to teach a foreign language, e.g. 'the communicative approach', 'the grammar translation method', towards a range of contextualised language learning approaches. Equally, the joint development of CLIL theories and practices indicates a shift towards joint development of a wide range of theories of practices as pointed out by Coyle (2007: 47–58). At the same time, it is important to remember that whilst a model such as the four Cs curriculum is not immune from the dangers of becoming another theory of language learning that can be applied (wrongly) in superficial ways. In this regard, I would argue that a lively and open debate between teachers and researchers is needed to critique and develop the four Cs model. For example, the notion of 'culture' remains somewhat fuzzy and needs further exploration. Equally, it is necessary to relate the four Cs to subject-specific teaching methodologies, e.g. enquiry-based approaches in history teaching, in order to develop the model further or to replace it with a new model if necessary.

In the following final section of this chapter, I review some overarching theories that further illustrate this shift from strong to weak models for teaching and learning. I understand 'weak' in the sense of less authoritative and less prescriptive models while being more flexible and contextualised. This critique is in line with growing criticisms (Harmer, 2001) of 'strong'

prescriptive pedagogical models. Although these theories are somewhat removed from the practical applications of Coyle's model, they reflect an increased concern with practical theories and theorised practices.

Theories of Practice: Practical Theories and Theorised Practices in CLIL

While CLIL has been inspired by immersion and bilingual education from a broad range of contexts, as Wolff (2007: 15) points out, '*Content and Language Integrated Learning* (CLIL) as an educational approach was developed in Europe and is, therefore, very strongly European-oriented. It is based on the assumption that foreign languages are best learnt by focusing in the classroom not so much on language but on the content which is transmitted through language.' Wolff's definition of CLIL echoes the one put forward by Marsh and Langé (2000: iii):

Content and language integrated learning (CLIL) is a generic term and refers to any educational situation in which an additional language and therefore not the most widely used language of the environment is used for the teaching and learning of subjects other than the language itself.

Some of the more recent CLIL publications (Dalton-Puffer & Smit, 2007; Marsh & Wolff, 2007) highlight the multitudinal and multi-faceted debates in CLIL. These reflect the wide range of applications of CLIL in a range of practice settings.

I suggest that in order to further develop research (and related teacher training) for CLIL, it is necessary to examine how additional research and training frameworks can support quality teaching and learning of CLIL in a range of contexts. I have presented in the previous sections one example of implementing CLIL in practice through the application of a conceptual, but also flexible framework. In the following section, I examine possible broader models for developing CLIL research in tandem with CLIL practices and training by looking at some key overarching current SLA theories.

Van Lier (1994, 1996) has developed his theory of practice for SLA by combining SLA theories with Bourdieu's (1977) theory of practice model. Bourdieu's theory of practice model has originally grown out of a concern to enable non-academics to analyse their settings and to act upon them by providing them with the appropriate 'capital' for taking action. This notion of activism has largely disappeared from van Lier's notion of 'theory of practice'. Instead, he considers theory of practice as a means to enable teachers to develop their practices by adopting his triple A-framework of becoming *aware* professionals who are *autonomous* in their classrooms and are able to provide *authentic* learning experiences. While his framework

might be applicable in a range of SLA learning settings, it is also somewhat inflexible and potentially debatable, especially in highly regulated (secondary) school settings. In this sense, van Lier's framework does not necessarily provide teachers with 'tools' to develop their own thinking about their SLA teaching practices in general, or CLIL in particular.

In previous research (Wiesemes, 2002), I have applied van Lier's model to a CLIL classroom setting and have argued that an appropriate theory of practice model would need to contain and maintain three key elements in order to be applicable in a CLIL setting: CLIL theories of practices need to be pragmatic, meaningful and focused (Wiesemes, 2002: 293). Taking these arguments further, I suggest the following three key foci for developing CLIL further:

- Pragmatic theory of practice means that it is achievable in relation to classroom practice and in relation to the research or development project that the teacher is involved in.
- Meaningful theory of practice means that it aims to develop teacher's personal (and possibly changing) theories in relation to their classroom practice/s and that the (classroom) research instruments used allow the teacher-researcher to describe, examine, criticise and improve his or her own practice/s first.
- Focused theory of practice means that it is specific in relation to classroom practice and in relation to the topic of development or research. This does not imply that research or development foci cannot change over time. It is focused in relation to the teacher's needs and interests in order to gain depth of understanding, possibly in favour of generalisability.

One of the limitations of this model is that it does not necessarily address directly collaborative research processes for CLIL quality and needs to incorporate conceptual 'tools' that allow examination and development of particular classroom practices. This particular theory of practice model is conceptually close to Kumaravadivelu's (2001) post-method pedagogy model, where he explores SLA teaching and research processes. His model makes explicit reference to the locatedness of all classroom practices. Drawing from a wide range of SLA research, he argues that the 'transmission model of teacher education is hopelessly inadequate to produce self-directing and self-determining teachers who constitute the backbone of any postmethod pedagogy' (Kumaravadivelu, 2001: 552). He proposes the following tenets of a post-method pedagogy:

[Postmethod pedagogy] must a) facilitate the advancement of a context sensitive language education based on a true understanding of local linguistic, sociocultural and political particularities, b) rupture the reified relationship between theorists and practitioners by enabling

teachers to construct their own theory of practice, c) tap the socio-political consciousness that participants bring with them in order to aid their quest for identity formation and social transformation.

He suggests to replace the concept of method with three pedagogic parameters of *particularity, practicality and possibility* as 'organizing principles for L2 teaching and teacher education'.

Drawing from his own and others' work, Kumaravadivelu has developed his theories further in 2006 focusing in particular on the issue of 'method'. He argues as follows:

We have been awakened to the necessity of making methods-based pedagogies more sensitive to the local exigencies, awakened to the opportunity afforded by postmethod pedagogies to help practising teachers develop their own theory of practice, awakened to the multiplicity of learner identities, awakened to the complexity of teacher beliefs and awakened to the vitality of macrostructures-social, cultural, political, and historical – that shape and reshape the microstructures of our pedagogic enterprise. (Kumaravadivelu, 2006: 75)

Although Kumaravadivelu adds the questioning of method to the development of theory of practice, he essentially develops van Lier's theory of practice model further by suggesting to individualise teacher education and related classroom teaching through a process that allows to take into account specific learning settings. While his arguments were originally intended for exploring foreign or second language classrooms, I would argue that these arguments apply equally in CLIL classrooms, as language and communication are crucial elements in CLIL. These overarching theoretical frameworks help to locate Coyle's four Cs more broadly. At the same time, I would suggest that it is crucial to avoid reification of models. For example, a future CLIL theory of practice could expand Coyle's four Cs model by examining and integrating more systematically subject-based pedagogical models into CLIL theories as well as taking into account the locatedness of CLIL practices.

To conclude, while theories and practices are not identical (and while research and development are not identical) and serve different purposes, I would suggest that – in order to avoid CLIL becoming another 'buzz' word or reified model – it is fundamental to the development of CLIL that theories and practices are jointly developed as part of a learned, non-dogmatic dialogue between CLIL participants, that is, learners, teachers, researchers and stakeholders. This will require a move away from transmission models of teaching and teacher education towards joint development of theories of practices. Only such collaborations will enable CLIL to make a real difference to learners' lives in achieving mother tongue +2 multilingualism and the related benefits.

References

- Bourdieu, P. (1977) *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bragger, J. and Rice, D.B. (1999) The message is the medium: A new paradigm for content-oriented instruction. *Foreign Language Annals* 32 (3), 373.
- Burden, R. and Williams, M. (eds) (1998) *Thinking through the Curriculum*. London and New York: Routledge.
- CILT (2002) *Languages for All*. London: Centre for Information on Language Teaching (CILT).
- Coyle, D. (2002) *Relevance of CLIL to the European Commission's Language Learning Objectives*. CLIL/EMILE: *The European Dimension – Actions, Trends and Foresight Potential*, D. Marsh (ed.). Jyväskylä: UniCOM, Continuing Education Centre.
- Coyle, D. (2005) CLIL activity in the UK. In H. Krechel (ed.) *Mehrsprachiger Fachunterricht in Ländern Europas* (pp. 79–88). Tübingen: Gunter Narr Verlag.
- Coyle, D. (2006) Developing CLIL: Towards a theory of practice. In *Monograph 6* (pp. 5–29) Barcelona: APAC.
- Coyle, D. (2007) The CLIL quality challenge. In D. Marsh and D. Wolff (eds) *Diverse Contexts – Converging Goals: CLIL in Europe* (pp. 47–58). Frankfurt: Peter Lang.
- Cummins, J. and Swain, M. (1986) *Bilingualism in Education: Aspects of Theory, Research and Practice*. London: Longman.
- Dalton-Puffer, C. and Smit, U. (eds) (2007) *Empirical Perspectives on CLIL Classroom Discourse*. Frankfurt: Peter Lang.
- Fruhauf, G., Coyle, D. and Christ, I. (eds) (1996) *Teaching Content in a Foreign Language: Practice and Perspectives in European Bilingual Education*. Alkmaar, Stichting Europees Platform voor her Nederlandse Onderwijs.
- Fisher, P. and Wilkinson, I. (2002) *Thinking through History*. Cambridge: Chris Kingston Publishing.
- Genesee, F. (1978) A longitudinal evaluation of an early immersion school programme. *Canadian Journal of Education* 3 (4), 31–50.
- Genesee, F. (1987) *Learning through Two Languages: Studies of Immersion and Bilingual Education*. Cambridge, MA: Newbury House.
- Harmer, J. (2001) *The Practice of English Language Teaching*. Cambridge: Longman.
- Kumaravadivelu, B. (2001) Toward a postmethod pedagogy. *TESOL Quarterly* 35 (4), 537–560.
- Kumaravadivelu, B. (2006) TESOL methods: Changing tracks, challenging trends. *TESOL Quarterly* 40 (1), 59–81.
- Leat, D. (1998) *Thinking through Geography*. Cambridge: Chris Kingston Publishing.
- Marsh, D. and Langé, G. (a cura di) (2000) *Using Languages to Learn and Learning to Use Languages*. Jyväskylä, Finland: University of Jyväskylä.
- Marsh, D. (2002) *CLIL/EMILE – The European Dimension: Actions, Trends and Foresight Potential*. Jyväskylä, Finland: University of Jyväskylä.
- Marsh, D. and Wolff, D. (eds) (2007) *Diverse Contexts – Converging Goals: CLIL in Europe*. Frankfurt: Peter Lang.
- Nuffield Foundation (2000) *Languages: The Next Generation: The Final Report and Recommendations of the Nuffield Languages Inquiry*. London: Nuffield Foundation.
- Van Lier, L. (1988) *The Classroom and the Language Learner*. London: Longman.
- Van Lier, L. (1994) Some features of a theory of practice. *TESOL Journal* (Autumn), 6–10.
- Van Lier, L. (1996) *Interaction in the Language Curriculum: Awareness, Autonomy and Authenticity*. London: Longman.

- Wiesemes, R. (2002) Developing my theory of practice as a teacher–researcher through a case study of CLIL classroom interaction. PhD, School of Education, University of Nottingham.
- Wolff, D. (2007) CLIL: Bridging the gap between school and working life. In D. Marsh and D. Wolff (eds) *Diverse Contexts-Converging Goals: CLIL in Europe* (pp. 15–25). Frankfurt: Peter Lang.

Part 2

***Studies in Content and Language
Integrated Learning***

Chapter 4

Testing the Effectiveness of Content and Language Integrated Learning in Foreign Language Contexts: The Assessment of English Pronunciation

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Introduction

The European Commission (1995) has established that, in addition to their mother tongue, European citizens should be able to communicate in at least two other languages of the European Union so as to guarantee social cohesion and integration among its members. With such a purpose in mind, early school instruction in one foreign language (FL), usually English, was promoted by the educational systems of many European countries as a first attempt towards trilingualism. However, age-related findings have shown that early learners consistently exhibit a lower proficiency than late learners when the time of exposure is controlled (Gallardo del Puerto, 2005, 2007; Gallardo de Puerto & García Lecumberri, 2006; Gallardo del Puerto *et al.*, 2006; García Mayo & García Lecumberri, 2003; Muñoz, 2006). While in those designs in which testing age is held constant some studies point to a clear superiority on the part of early learners (Garagorri, 2002), other investigations find a much slighter early advantage (Lasagabaster & Doiz, 2004), and still other experiments discover no statistical differences between early and late starters (Egiguren, 2006; Ruiz de Zarobe, 2006). It must not be forgotten, though, that early advantage, when discovered in designs in which testing age is the same for all groups, may also be ascribed to a larger exposure and not just to an early starting age (Gallardo del Puerto, 2007). Consequently, apart from an early onset age, a more intensive use of the FL is currently advocated for these instructional learning environments, probably based on the

positive results of the intensive L2 English programmes conducted in Canada in the last two decades. The students in these intensive programmes have been compared to learners receiving regular L2 English courses who were either in the same year of schooling (less quantity of exposure) or in higher grades (same amount of exposure over a longer expanse of time). The pre-test–post-test comparisons yielded superior outcomes for the intensive learning conditions in a series of measures such as listening and reading comprehension (Spada & Lightbown, 1989), oral abilities (Spada & Lightbown, 1989; White & Turner, 2005) and lexical and writing skills (Collins *et al.*, 1999). Additionally, studies on L2 French intensive instruction mirrored these findings (Lightbown & Spada, 1997; Netten & Germain, 2004).

In fact, many schools in Spain are enrolled in special programmes which that devote some additional time per week to the learning of FL English. However, probably due to the tight schedules that these schools have, they have usually opted for the use of the FL as a tool to teach some other school discipline [e.g. religious education (RE), social sciences] rather than introducing more hours of traditional FL courses, as has occurred in some minority language immersion settings in an attempt ‘to help expand the proficiency of majority language students’ in the minority language (Crandall & Tucker, 1990: 190). A language language-teaching methodology in which the FL is not the subject of instruction itself but the vehicle for content instruction is most commonly known as ‘content-based instruction’ (Brinton *et al.*, 1989) or ‘content and language integrated learning’ (henceforth, CLIL) (Nikula & Marsh, 1998).

The integration of language and content teaching in FL settings is most often defended on the basis of the well-documented success of L2 immersion programmes all over the world (Artigal, 1997; Arzamendi & Björklund, 1997; Burger *et al.*, 1997; Genesse, 1987, 1997; Lambert & Tucker, 1972; Muñoz, 2003). In immersion education the regular school curriculum is taught through the medium of the L2 according to the belief that ‘children are able to learn a second language in the same way as they learned the first language: (a) by being exposed to authentic input in the second language and (b) by needing to use the second language for real, communicative purposes’ (Snow, 1990: 111). As regards empirical research on instructed L2 learning in immersion settings, the perspective that has mostly been examined is that of comparing the L2 competence achieved by students from school immersion conditions to either the L2 proficiency attained by students from more traditional L2 programmes or to native speakers’ proficiency. As for the former studies, immersion students score significantly higher across the board in all the linguistic skills tested (Campbell *et al.*, 1985; Genesee, 1987; Met, 1994; Shapson & Kaufman, 1978; Snow, 1990), in addition to, at later stages, manifesting a significant gain in their intention to use the L2 outside the classroom and an improvement in

their self-confidence in real-life L2 use (Wesche, 1985). Nevertheless, there are also cases in which the immersion experience did not turn out to be so positive due to disfavoured factors such as a large typological distance between the L1 and the L2 and the lack of contact with the L2 outside school (Spada & Lightbown, 2002).

Positive outcomes have also been reported in studies conducted with students at university levels. Particularly related to our study are the results of Burger and Chrétien (2001), who investigated whether students in L2 English content-based courses emphasising listening and reading skills improved their oral productive skills (including pronunciation) as compared to students attending a three-hour lecture English course. Results indicated that gains were significant when looking at overall competence and syntax results, which supports the idea that sustained exposure to reading and listening for content rather than for pure language learning reasons can lead to improvement in productive skills (also see Burger, 1989; Lightbown, 1992; Ready & Wesche, 1992). However, no gains in pronunciation were discovered.

As far as the comparison between immersion learners and native speakers of the L2, long-term research outcomes indicate that immersion students seem to be equal or nearly equal to natives when analysing receptive skills (Kasper, 1994; Snow, 1990) and some communicative abilities (Bruck *et al.*, 1974, 1976; Day & Shapson, 1987; Pawley, 1983). However, the same is not true for some of their productive skills or purely linguistic abilities, such as vocabulary, grammar or pronunciation, which are not native-like (Day & Shapson, 1987; Lambert & Tucker, 1972). These results are in agreement with those obtained in comprehension-based L2 programmes emphasising global comprehension of written and oral tests (Paribakht & Wesche, 1993) and where participants, compared to students from more traditional language programmes, have been found to show a better receptive proficiency, such as text comprehension and discourse processing, but worse grammatical knowledge.

However, most of the immersion conditions reported so far bear little resemblance to the study of English through CLIL programmes in Europe, particularly in terms of the sociolinguistic and sociocultural context in which the L2 is learned and the authenticity of the input. Nikula (2005) noted the relevance of two distinguishing factors, the first one being the fact that in many European countries English is not chosen as the language of instruction because of its use in the surrounding community but simply owing to its role as an international language. The second and crucially important factor focuses on CLIL teachers, as they are said to differ from immersion teachers in that, as a rule, they are not native speakers of the TL but native in the language of the community, which can have important consequences for the quality of the input, particularly at a phonological level.

As for the research conducted on CLIL in Europe, we cannot but agree with Nikula's (2005) assertion that, despite the increasing popularity of CLIL programmes in different European countries, research on CLIL is still in its infancy. Nevertheless, Nikula (2005) and Dalton-Puffer and Nikula (2006) quote a series of unpublished documents on the acquisition of English in CLIL settings in Finland, the Netherlands and Sweden (Huibregtse, 2001; Jäppinen, 2003; Laitinen, 2001; Sylvén, 2004) and maintain that their 'results are quite encouraging both in terms of language development and subject mastery' (Nikula, 2005: 28). More interestingly, some comparative studies have been specially designed to see how CLIL and traditional FL courses compare with each other in terms of TL proficiency achievement. Bürgi (2007) carried out a longitudinal investigation in three secondary schools in Switzerland where CLIL and normal class students were compared over three academic years for general proficiency and vocabulary skills in English. The scores achieved by both groups in the placement and vocabulary level tests consistently showed, along the three testing sessions and in the three schools, that those who used English as a tool reached a higher level of English than regular students did. In the Basque Country, Jiménez Catalán *et al.* (2006) analysed the acquisition of English by primary school students of English as a vehicular language versus English as a simple school subject and reported differences in favour of content-based instruction in a cloze test designed to measure lexical, grammatical and discursive competence, a reading comprehension task, a receptive vocabulary level test and a writing composition employed as a means to obtain information about productive vocabulary acquisition. In the same context, Villarreal and García Mayo (2007) examined the acquisition of tense and agreement inflectional morphology in oral English by secondary school students learning English. Their analyses yielded significantly better outcomes for the CLIL group in the use of the third person singular -s verb marker.

The main purpose of our study is to examine the effect of CLIL with regard to one aspect of language production that has not been very much studied in the implementation of CLIL in formal contexts: pronunciation. The presence of foreign accent (FA) in second-language acquisition is one of the most difficult to correct and pervasive features of FL learners (Scovel, 2006). The communicative effects of FA are diverse (see Cunningham-Andersson, 1997; Eisenstein, 1982). Intelligibility, for instance, is constantly reported to suffer when learners' pronunciation shows a variety of L1 features (Anderson-Hsieh & Koehler, 1988; Eisenstein & Berkowitz, 1981; Field, 2005; Hahn, 2004; Jenkins, 2003; Pegolo, 1993). In fact, communication may be extremely difficult in some cases, especially if the FA alters words to the point that the listener is unable to recognise them (Kerr, 2003). Most of the time, however, the biggest problem is not the impossibility of effective communication but the extra effort of concentration that the

listener has to make in order to decode and repair L2 speakers' distortions from native phonological norms (Fernández González, 1988). These mispronunciations may actually make listeners feel irritated, annoyed, anxious or bored (Fayer & Krasinski, 1987). In fact, previous research findings (Derwing & Munro, 1997; Fayer & Krasinski, 1987; Gallardo del Puerto, 2005; Gallardo del Puerto *et al.*, 2007; García Lecumberri & Gallardo del Puerto, 2003; Munro & Derwing, 1995) indicate that accent, intelligibility and irritation are related in that a milder FA is associated with more intelligible and less irritating speech. Additionally, listeners seem to judge accent-edness much more severely than irritation and intelligibility. Moreover, intelligibility and irritation have been found to obtain more similar scores and to be more strongly correlated between themselves than when THE degree of FA is compared to them (Gallardo del Puerto, 2005; Gallardo del Puerto *et al.*, 2007).

In the present study, we set out to compare the degree of FA of students who learned English through traditional classroom instruction with those learning in CLIL environments. Additionally, we were interested in the communicative effects of FA, specifically the intelligibility and irritation produced by learners' speech and the correlation of these two variables with the degree of FA. Since both these research questions depended on FA judgements, a subsidiary point was to examine the validity of our instruments, that is, the scales and judges employed in the present study.

Learners

The participants in this study were 28 Basque–Spanish bilingual school children who had been exposed to the FL exclusively at school. They were being instructed in Basque (the minority language of the community), whereas Spanish (the majority language in the Basque Country) and English (a language with a foreign status in Spain) were just two school subjects to which four and three hours per week were devoted, respectively. As for English, all participants had started learning it when they were eight years old. Students' ages at the time of testing ranged from 14 to 16.

Subjects were divided into two groups of 14 students each according to whether they were (or not) receiving extra exposure to English by means of CLIL. Both groups were made up of 10 students in their 6th year of FL learning and four subjects in their 7th year of English instruction. Table 4.1 displays the characteristics of the two groups: content learners (CLs) and no-content learners (NCLs). As can be seen, those (NCLs) who were just following traditional English lessons, in which English is just the object of instruction, had a mean age of 14.57 and had received a mean exposure of 721 hours (range: 693–792 hours). These students attended a school in Gipuzkoa, in the Basque Country. On the other hand, the students (CLs) who were using the FL also as a tool by receiving an additional exposure

Table 4.1 Characteristics of the sample

	<i>Onset age</i>	<i>Mean age</i>	<i>Mean exposure</i>
CLs (<i>n</i> = 14)	8	14.64	980 hours
NCLs (<i>n</i> = 14)	8	14.57	721 hours

to English through content-based learning had a mean age of 14.64 and a mean exposure of 980 hours (range: 910–1155 hours), that is, 259 more hours on average than the traditional group. This difference corresponded to the school hours devoted to CLIL. More specifically, out of our 14 CLs, 10 of them were in their third year of content instruction whereas the other four subjects were in their fourth year. These students belonged to two different schools in Bizkaia, in the Basque Country. These schools were involved in a CLIL programme in which content learning and language learning were integrated from the beginning of secondary school. In these schools, students were being taught an average of two school subjects (e.g. English literature, classical culture, RE, science, biology, geography, history, drawing) per year in English from age 11 or 12.

Instruments

The instrument employed to analyse participants' English pronunciation was a story-telling activity in which students were individually presented a series of wordless black and white vignettes telling the story of a frog (*Frog, where are you?* by Mayer, 1969). Students had to look at the pictures and tell the interviewer the story in English, and were recorded on to an audio tape. Two-minute excerpts were extracted from participants' productions, randomised and presented to five listeners so that they could judge learners' pronunciations. This group of judges was made up of five monolingual speakers of British English who had received a university education in fields other than linguistics in the UK. They all reported their hearing and speech to be normal. None of them had any experience in assessing pronunciation or any special knowledge of linguistics. Naïve or inexperienced judges have been demonstrated to be fully reliable when judging whether someone speaks with an FA (Bongaerts *et al.*, 1995; Flege, 1984; Scovel, 1981). Additionally, it has been suggested that they are less lenient than experienced listeners in rating the degree of accentedness (Cunningham-Andersson, 1997; Piper & Cansin, 1988; Thompson, 1991).

Learners' pronunciations were assessed on the basis of three different nine-point scales: degree of foreign accent (DFA), foreign accent intelligibility (FAIN) and foreign accent irritation (FAIR). The DFA scale measured how strong the speaker's FA was and ranged from 'very strong FA' (1 point)

to 'very slight FA' (9 points). The FAIN scale measured how understandable the speaker's accent (pronunciation) was, ranging from 'impossible to understand' (1 point) to 'extremely easy to understand' (9 points). The FAIR scale measured how irritating the speaker's accent (pronunciation) was for the listener, if at all, its extreme poles being labelled 'extremely annoying' (1 point) and 'not at all annoying' (9 points). As can be seen, scales were designed so that the higher the score, the more native-like the pronunciation. In other words, higher scores corresponded to less strong, more intelligible and less irritating accents.

Listeners were required to listen to the whole excerpt before making a judgement. In addition, they were asked to make sure that there were good listening conditions when doing the listening task. They were also informed about the fact that all speakers were non-native to avoid unrealistic expectations affecting their use of the scales. As in previous FA studies (see Riney & Flege, 1998, for example), judges were encouraged to make use of the entire scale, to rate only pronunciation, and to ignore everything else. Besides, it was suggested that they should take frequent breaks so as to avoid tiredness influencing their decisions. However, it was suggested that, ideally, they attempt the whole task in one day, so that their use of the scales was consistent throughout. Finally, they were allowed to revise previous judgements after listening to a number of speakers.

Analyses

Analyses were carried out in order to both verify the consistency among listeners and discover the relationship among the three FA scales and to ascertain potential differences between CLs and NCLs' pronunciations. For the former, correlation analyses were conducted, while for the latter, mean scores and standard deviations were calculated and, subsequently, analyses of variance (*T*-tests) were performed. Statistical significance is indicated at ≤ 0.05 (*) and ≤ 0.01 (**) levels.

As stated above, inter-judge reliability was examined by means of correlation analyses. As far as the degree of FA is concerned, analyses indicated that inter-judge DFA judgements were not always correlated. In fact, only five out of ten correlations turned out to be statistically significant. In these cases, Pearson indexes were of a moderate magnitude (around 0.50). As for FA intelligibility, all inter-judge correlations reached statistical significance, with Pearson indexes of moderate to high magnitude (around 0.50–0.80). With regard to FA irritation, results indicated that most inter-judge correlations were significant. However, in this case, Pearson indexes revealed correlations of a lower magnitude (around 0.40–0.50).

Additionally, correlations were conducted so as to discover whether degree of FA, FA intelligibility and FA irritation were interrelated. Table 4.2 displays these correlations for all judges as a group and for each of the

Table 4.2 Inter-scale correlations

	<i>DFA–FAIN</i>	<i>DFA–FAIR</i>	<i>FAIN–FAIR</i>
All judges	0.705**	0.680**	0.904**
Judge 1	0.781**	0.740**	0.854**
Judge 2	0.280	0.241	0.771**
Judge 3	0.632**	0.696**	0.855**
Judge 4	0.767**	0.471*	0.643**
Judge 5	0.396*	0.743**	0.489**

Note: Statistical significance is indicated at ≤ 0.05 (*) and ≤ 0.01 (**) levels.

individual judges as well. Statistical significance was reached on all occasions when FA intelligibility and irritation were correlated. However, when the degree of FA was involved in the comparison, Judge 2's judgements were not significantly correlated. As for the magnitude of the correlations, the highest value was displayed when FA intelligibility and irritation were correlated. In fact, when the whole group of listeners is analysed, the Pearson index for FAIN–FAIR correlation went up to 0.90, individual indexes moving from around 0.50 to over 0.80. The correlations between degree of FA and FA intelligibility and degree of FA and FA irritation displayed more moderate magnitudes, Pearson indexes being of around 0.70 when all listeners' judgements were analysed and of around 0.40–0.70 when individual judgements were examined.

Let us examine now the differences between content and no-content students with regard to their pronunciation of English on the basis of listeners' judgements of their degree of FA, FA intelligibility and FA irritation. Table 4.3 displays the results for degree of FA. As can be observed,

Table 4.3 CLs versus NCLs–DFA

	<i>CLs</i>		<i>NCLs</i>		<i>T-value</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
All judges	3.34	0.813	2.97	1.052	1.045
Judge 1	3.43	0.646	2.79	0.699	2.526*
Judge 2	3.21	1.122	3.21	1.251	0.000
Judge 3	4.29	2.335	4.07	1.979	0.262
Judge 4	4.07	1.439	2.79	1.626	2.216*
Judge 5	1.71	0.726	2.00	1.109	–0.806

Note: Statistical significance is indicated at ≤ 0.05 (*) level.

when all judges are considered as a group, the differences between the mean scores obtained by CLs and NCLs did not reach statistical significance. However, two individual listeners (Judge 1 and Judge 4) distinguished these two types of learner as regards degree of FA in a significant way. Only for these two listeners, content-based learners outperformed no-content students, that is, CLs were considered to exhibit a significantly milder degree of FA.

With regard to FA intelligibility (Table 4.4), *T*-test analyses indicated that there were statistically significant differences between content and no-content students in all cases, no matter whether overall judgements or individual evaluations were considered. CLs' pronunciation was unanimously found to be more intelligible than NCLs' accent.

As far as FA irritation is concerned (Table 4.5), *T*-test analyses revealed that the comparison between CLs and NCLs was significant when the means displayed by all judges as a group were examined. Results indicated

Table 4.4 CLs versus NCLs–FAIN

	<i>CLs</i>		<i>NCLs</i>		<i>T-value</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
All judges	4.99	1.680	3.27	1.097	3.197**
Judge 1	4.36	1.216	3.57	0.646	2.135*
Judge 2	4.64	1.865	2.64	1.151	3.415**
Judge 3	6.43	2.472	4.07	1.817	2.875**
Judge 4	5.21	2.119	3.43	1.697	2.461*
Judge 5	4.29	1.858	2.64	1.598	2.508*

Note: Statistical significance is indicated at ≤ 0.05 (*) and ≤ 0.01 (**) levels.

Table 4.5 CLs versus NCLs–FAIR

	<i>CLs</i>		<i>NCLs</i>		<i>T-value</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
All judges	5.07	1.222	4.16	0.888	2.265*
Judge 1	5.14	0.864	4.07	0.917	3.181**
Judge 2	4.93	1.900	3.29	1.541	2.513*
Judge 3	6.29	2.494	5.00	1.961	1.516
Judge 4	5.71	1.637	5.14	1.12	0.959
Judge 5	3.29	0.914	3.29	0.726	0.000

Note: Statistical significance is indicated at ≤ 0.05 (*) and ≤ 0.01 (**) levels.

that content students' accent was significantly less irritating than NCLs' accent, as the higher the score the lower the irritation. Besides, two individual listeners (Judge 1 and Judge 2) significantly distinguished these two types of learner in the same direction too.

Discussion

The present study was intended to compare the effect of CLIL as opposed to traditional classroom teaching on the pronunciation abilities of English learners. Since pronunciation was assessed by means of judgements made by individual listeners, our first concern was to ascertain the reliability of our instruments, in particular the consistency of judges among themselves and along the scales that evaluated how strong, intelligible or irritating accents were.

The inter-judge correlations for the three FA measures of our study manifested a higher correlation for FA intelligibility than for FA irritation, and for FA irritation than for degree of FA. In other words, native judges agreed to a larger extent when they evaluated learners' speech intelligibility than when they reported their perception of the irritation and, much more markedly, the strength of learners' FA. It would appear, then, that among listeners there is less agreement in their assessment of degree of FA as they showed varying degrees of sensitivity to this aspect of accent.

These results mirror those of pronunciation studies conducted in formal contexts in which greater intra-rater consistency has been discovered for intelligibility than for irritation or degree of FA (Gallardo del Puerto, 2005). Our finding of greater inter-rater differences in the case of degree of accentedness requires further explanation but it is worth pointing out that this is a very common outcome in many FA studies (Munro *et al.*, 1996; Munro & Mann, 2005). Fullana (2006), for example, argues that the variability of DFA ratings discovered in her study might be due to the fact that the 9-point scale which the raters were asked to employ was too detailed for her sample of subjects, who had not received enough amount of TL instruction (a maximum of 726 hours in her case) to bring about noticeable differences amongst speakers. In the present study, some of the students had received a superior quantity of exposure (a maximum of 1155 hours), but it can still be conceded that this is an insufficient amount in formal contexts of acquisition. In fact, although the label 'no accent' was not included in the DFA scale, even the 9-point scale presented may have been too ambitious for the limited range of pronunciations encountered in our sample. As in many formal instruction contexts, our subjects were trained by non-native tutors and, as mentioned above (Nikula, 2005; Snow, 1990), the authenticity of the input is a crucial point for both immersion and CLIL instruction. This may be partly why most of the sound inventory learners used in the TL was transferred from their L1s, as was ascertained

by trained phoneticians' observations. The paucity of accent variation among speakers may have run against our encouragement to judges to make use of the whole rating scale. This may have contributed to divergences among raters in their interpretation of the task. It is true that in previous experiments (Bongaerts *et al.*, 1995; Flege, 1984; Scovel, 1981) naïve judges have been found to be reliable in detecting FA. However, the range of FA variability among talkers in these studies was probably much larger than that in the present one. Perhaps, trained listeners would have been more precise in estimating finer differences within the present range of FAs (see Calloway, 1980; Flege, 1984; Gallardo del Puerto *et al.*, 2007; Thompson, 1991).

As for the correlation between the three FA measures used in our study, in agreement with previous work (Derwing & Munro, 1997; Fayer & Krasinski, 1987; Gallardo del Puerto, 2005; Gallardo del Puerto *et al.*, 2007; García Lecumberri & Gallardo del Puerto, 2003; Munro & Derwing, 1995), the analyses clearly show that listeners agreed in that the weaker the FA, the more intelligible and the less irritating the pronunciations were. Correlations were statistically significant in all cases except for one judge, who did not correlate the degree of FA with FA intelligibility and irritation significantly.

As in previous experiments (Gallardo del Puerto, 2005; Gallardo del Puerto *et al.*, 2007), correlations were always of a higher magnitude when FA intelligibility and irritation were compared, whereas when the degree of FA was involved in the comparison correlations were found to be weaker. This weaker connection between the degree of FA and the two other variables can be attributable to the fact that judges may have been affected by extra-phonetic variables (see Anderson-Hsieh & Koehler, 1988; Gallardo del Puerto, 2005; Gallardo del Puerto *et al.*, 2007; García Lecumberri & Gallardo del Puerto, 2003; Markham, 1997; Munro & Derwing, 1995; Varonis & Gass, 1981) in their assessment of intelligibility and irritation more than in their evaluation of degree of FA. In particular, codeswitching was frequent in the sample and it may be reasoned that the presence of 'foreign' words in the speech did not 'count' as a stronger accent but contributed significantly to difficulties in understanding speakers and to the extra effort listeners had to make, i.e., to irritation.

In any case, the different correlation values suggest that a more intelligible FA is more strongly connected to a less irritating FA than to a slighter degree of FA. Thus, native speakers feel more irritated when learners' pronunciations are unintelligible than when they are merely perceived to show a strong FA. When mispronunciations present such deviation from native norms that the comprehension of speech is exceedingly difficult (Kerr, 2003), accent is perceived to be more irritating. This implies that to a certain extent raters are able to distinguish between the degree of accent-ness and some of its communicative effects (intelligibility, irritation).

As for the comparison between CL and NCLs, students who had received a more intensive exposure by means of the use of English as a vehicular language were considered to have a more intelligible FA. This is the only measure in which all individual judges distinguished CL and NCLs significantly. With regard to the irritation effect, even though not all individual raters' comparisons reached statistical significance, the results for all raters' judgements taken jointly yielded a significant difference between CL and NCLs. This finding allows us to conclude that the FA exhibited by CLs was also perceived to be less irritating than that of no-content students. However, in the case of degree of FA, we did not find statistical differences between the two groups. This could be due to the fact that, despite the higher amount of exposure that CLIL students received, the other crucial ingredient, i.e. authentic input, was for the most part missing, which suggests that the higher intelligibility and irritation rates may have been affected by a higher competence in grammar and fluency rather than by a milder FA.

Additionally, the comparison of both content and no-content mean scores indicated that not all FA measurements were evaluated equally along the scale continuum. In fact, the degree of FA turned out to be the most severely judged variable, which agrees with previous research findings (Derwing & Munro, 1997; Fayer & Krasinski, 1987; Gallardo del Puerto, 2005; Gallardo del Puerto *et al.*, 2007; García Lecumberri & Gallardo del Puerto, 2003; Munro & Derwing, 1995).

It may well be that when listeners assess the communicative effects of FA (intelligibility or irritation), their judgements are affected by other factors such as fluency (Anderson-Hsieh & Koehler, 1988) and grammar (Varonis & Gass, 1981). Experimenters' analyses of students' productions compared to students' results in other skills, indicated that our speakers' grammatical and lexical competence and oral fluency were perceived to be considerably better than their phonological proficiency. Therefore, it may be that non-phonetic aspects could have contributed to the impression of a more intelligible and thus less irritating speech (even when faced with codeswitching, as mentioned above). Additionally, for degree of FA, judges may have been comparing students' pronunciations with native accents (despite the fact that they were told that there were no natives in the sample), which would have resulted in harsher judgements. Phonetic competence lagging behind other linguistic skills is to be expected, given the fact that tutors in formal contexts are mostly non-native speakers and it agrees with the findings that pronunciation is one of the linguistic areas which is given less importance by secondary school teachers (Martínez & Jiménez, 1990) and which is 'viewed nowadays as one of the least useful of the basic language skills' (Quijada, 1997: 266). This, together with the fact that most of the English text books used in Basque secondary schools

are characterised by the scarcity of exercises targeting pronunciation skills (Gallardo del Puerto, 2005), would contribute to the poor acquisition of TL pronunciation, as reflected by the assessment of FA in our study.

The comparison between our content versus no-content students partly supports the findings of other studies conducted in non-European settings in which a more intensive institutional exposure to one of the languages of the community, either through an increase in the number of hours devoted to regular TL exposure (Collins *et al.*, 1999; Lightbown & Spada, 1997; Netten & Germain, 2004; Spada & Lightbown, 1989; White & Turner, 2005) or by means of TL immersion programmes (Campbell *et al.*, 1985; Genesee, 1987; Met, 1994; Shapson & Kaufman, 1978; Snow, 1990), is associated with better outcomes in the acquisition of the language in question. The higher intelligibility of our CLs is also in agreement with the positive findings of the research on the implementation of CLIL in Europe, where the TL, mainly English, is not natively spoken in the community and learnt in exclusively formal instructional settings (Bürge, 2007; Dalton-Puffer & Nikula, 2006; Huibregtse, 2001; Jäppinen, 2003; Jiménez Catalán *et al.*, 2006; Laitinen, 2001; Nikula, 2005; Sylvén, 2004; Villareal & García Mayo, 2007). On the other hand, the lack of contrast between our two groups as regards degree of FA may be attributable, as was pointed out above, to the scarcity of authentic input despite the differences in the amount of exposure.

The beneficial effect of CLIL in instructional environments is more evident when we compare it to the linguistic outcomes of other proposals targeting TL improvement in formal contexts, such as early introduction. This is specially relevant with regard to intelligibility in our case. The comparison of our results to the findings of phonetic research on early introduction is in such settings (Fullana, 2006; Gallardo del Puerto, 2005; Gallardo del Puerto & García Lecumberri, 2006; Gallardo del Puerto *et al.*, 2006; García Lecumberri & Gallardo del Puerto, 2003) seems to indicate that exposure can be a much more influential variable than age in the acquisition of FLs in purely *formal contexts*. In as much as CLIL programmes clearly increase the amount of exposure that learners receive, they may be a more favourable environment for the development of more intelligible and less irritating speech, and probably, a less strong FA if classroom phonological input is sufficiently authentic.

Acknowledgements

This research was funded by the Basque Government Research Project PI199896 and the Spanish Ministry of Science and Education Research Projects PB96-0611 and HUM2006-09775-C02-01/FILO. The authors wish to thank particularly both English learners and English-native judges for their collaboration in this experiment.

References

- Anderson-Hsieh, J. and Koehler, K. (1988) The effect of foreign accent and speaking rate on native speaker comprehension. *Language Learning* 38 (4), 561–613.
- Artigal, J.M. (1997) The Catalan immersion program. In R.K. Johnson and M. Swain (eds) *Immersion Education: International Perspectives* (pp. 133–150). Cambridge: CUP.
- Arzamendi, J. and Genesee, F. (1997) Reflections on immersion education in the Basque Country. In R.K. Johnson and M. Swain (eds) *Immersion Education: International Perspectives* (pp. 151–165). Cambridge: CUP.
- Björklund, S. (1997) Immersion in Finland in the 1990s: A state of development and expansion. In R.K. Johnson and M. Swain (eds) *Immersion Education: International Perspectives* (pp. 85–101). Cambridge: CUP.
- Bongaerts, T., Planken, B. and Schils, E. (1995) Can late starters attain a native accent in a foreign language? A test of the critical period hypothesis. In D. Singleton and Z. Lengyel (eds) *The Age Factor in Second Language Acquisition* (pp. 30–50). Clevedon: Multilingual Matters.
- Brinton, D.M., Snow, M.A. and Wesche, M. (1989) *Content-Based Second Language Instruction*. New York: Newbury House.
- Bruck, M., Lambert, W. and Tucker, G.R. (1974) Bilingual schooling through the elementary grades: The St. Lambert project at grade seven. *Language Learning* 24, 183–204.
- Bruck, M., Lambert, W. and Tucker, G.R. (1976) Alternative forms of immersion for second language teaching. *Working Papers on Bilingualism* 10, 22–73.
- Burger, S. (1989) Content-based ESL in a sheltered psychology course: Input, output and outcomes. *TESL Canada Journal* 6 (2), 45–59.
- Burger, S. and Chretien, M. (2001) The development of oral production in content-based second language courses at the University of Ottawa. *Canadian Modern Language Review* 58, 84–102.
- Burger, S., Wesche, M. and Migneron, M. (1997) Late, late immersion: Discipline-based second language teaching at the University of Ottawa. In R.K. Johnson and M. Swain (eds) *Immersion Education: International Perspectives* (pp. 65–84). Cambridge: CUP.
- Bürgi, H. (2007) *Im Sprachbad. Besseres Englisch durch Immersion. Eine Evaluation zweisprachiger Ausbildungsgänge an drei kantonalen Gymnasien in der Schweiz*. Bern: HEP.
- Calloway, D.R. (1980) Accent and the evaluation of ESL oral proficiency. In J.W. Oller, Jr. and K. Perkins (eds) *Research in Language Testing* (pp. 102–115). Rowley, MA: Newbury House.
- Campbell, R.N., Gray, T.C., Rhodes, N.C. and Snow, M.A. (1985) Foreign language learning in elementary school: A comparison of three language programs. *Modern Language Journal* 69 (1), 44–54.
- Collins, L., Halter, R.H., Lightbown, P.M. and Spada, N. (1999) Time and the distribution of time in L2 instruction. *TESOL Quarterly* 33 (4), 655–680.
- Crandall, J. and Tucker, G.R. (1990) Content-based instruction in second and foreign languages. In A. Padilla, H.H. Fairchild and C.M. Valadez (eds) *Foreign Language Education: Issues and Strategies* (pp. 187–200). Newbury Park, CA: Sage.
- Cunningham-Andersson, U. (1997) Native speaker reactions to non-native speech. In A. James and J. Leather (eds) *Second Language Speech: Structure and Process* (pp.133–144). Berlin: Mouton de Bruyter.
- Dalton-Puffer, C. and Nikula, T. (2006) Pragmatics of content-based instruction: Teacher and student directives in Finnish and Austrian classrooms. *Applied Linguistics* 27 (2), 241–267.

- Day, E.M. and Shapson, S.M. (1987) Assessment of oral communicative skills in early French immersion programmes. *Journal of Multilingual and Multicultural Development* 8 (3), 237–260.
- Derwing, T.M. and Munro, M.J. (1997) Accent, intelligibility, and comprehensibility: Evidence from four L1s. *Studies in Second Language Acquisition* 19, 1–16.
- Egiguren, I. (2006) Atzerriko Hizkuntza Goiztiarraren Eragina Gaitasun Eleaniztunean. PhD thesis, University of the Basque Country.
- Eisenstein, M. (1982) Native reactions to non-native speech: A review of empirical research. *Studies in Second Language Acquisition* 5, 160–167.
- Eisenstein, M. and Berkowitz, D. (1981) The effect of phonological variation on adult learner comprehension. *Studies in Second Language Acquisition* 4, 75–80.
- European Commission (1995) *White Paper on Education and Training: Towards the Learning Society*. DG XXII, Brussels.
- Fayer, J.M. and Krasinski, E. (1987) Native and nonnative judgements of intelligibility and irritation. *Language Learning* 37 (3), 313–327.
- Fernández González, J. (1988) Reflections on foreign accent. In J. Fernández González and J. de Santiago-Guervós (eds) *Issues in Second Language Acquisition and Learning* (pp. 127–142). Valencia: Universitat de València.
- Field, J. (2005) Intelligibility and the listener: The role of lexical stress. *TESOL Quarterly* 39 (3), 399–423.
- Flege, J.E. (1984) The detection of French accent by American listeners. *Journal of the Acoustical Society of America* 76, 692–707.
- Fullana, N. (2006) The development of English (FL) perception and production skills: Starting age and exposure effects. In C. Muñoz (ed.) *Age and the Rate of Foreign Language Learning* (pp. 41–64). Clevedon: Multilingual Matters.
- Gallardo del Puerto, F. (2005) *La Adquisición de la Pronunciación del Inglés como Tercera Lengua*. Leioa: University of the Basque Country.
- Gallardo del Puerto, F. (2007) On the effectiveness of early foreign language instruction in school contexts. In D. Elsner, L. Küster and B. Viebrock (eds) *Fremdsprachenkompetenzen für ein wachsendes Europa. Das Leitziel 'Multilateralität'* (pp. 215–229). Frankfurt/Main: Peter Lang.
- Gallardo del Puerto, F. and García Lecumberri, M.L. (2006) Age effects on single phoneme perception for learners of English as a foreign language. In C. Abello-Contesse, R. Chacón-Beltrán, M.D. López-Jiménez and M.M. Torreblanca-López (eds) *Age in L2 Acquisition and Teaching* (pp. 115–131). Bern: Peter Lang.
- Gallardo del Puerto, F., García Lecumberri, M.L. and Cenoz, J. (2006) Age and native language influence on the perception of English vowels. In B.O. Baptista and M.A. Watkins (eds) *English with a Latin Beat: Studies in Portuguese/Spanish-English Interphonology* (pp. 57–69). Amsterdam/Philadelphia: John Benjamins.
- Gallardo del Puerto, F., Gómez Lacabex, E. and García Lecumberri, M.L. (2007) The assessment of foreign accent by native and nonnative judges. In J. Maidment (ed.) *Phonetics Teaching and Learning Conference 2007* (CD-Rom format). London: University College London.
- Garagorri, X. (2002) Hirueletasun goiztiarra ikastoletan 'Eleanitz-Ingelesa' proiektuaren ebaluazioa. In F. Etxebarria and U. Ruiz Bikandi (eds) *¿Trilingües a los 4 Años?* (pp. 105–143). San Sebastian: Ibaeta Pedagogia.
- García Lecumberri, M.L. and Gallardo del Puerto, F. (2003) English FL sounds in school learners of different ages. In M.P. García Mayo and M.L. García Lecumberri (eds) *Age and the Acquisition of English as a Foreign Language* (pp. 115–135). Clevedon: Multilingual Matters.
- García Mayo, M.P. and García Lecumberri, M.L. (eds) (2003) *Age and the Acquisition of English as a Foreign Language*. Clevedon: Multilingual Matters.

- Genesee, F. (1987) *Learning Through Two Languages: Studies of Immersion and Bilingual Education*. Rowley, MA: Newbury House.
- Hahn, L.D. (2004) Primary stress and intelligibility: Research to motivate the teaching of suprasegmentals. *TESOL Quarterly* 38 (2), 201–223.
- Huibregtse, I. (2001) Effecten en Didaktiek van Tweetalig Voortgezet onderwijs in Nederland. PhD thesis, University of Utrecht.
- Jäppinen, A-K. (2003) *Ajattelu ja Sisältöjen Oppiminen Vieraskielisessä Opetuksessa. Tutkimusraportti 2/3*. Jyväskylä: The Centre for Applied Language Studies.
- Jenkins, J. (2003) Intelligibility in lingua franca discourse. In J. Burton and C. Clennell (eds) *Interaction and Language Learning* (pp. 83–97). Alexandria, VA: TESOL.
- Jiménez Catalán, R.M., Ruiz de Zarobe, Y. and Cenoz, J. (2006) Vocabulary profiles of English foreign language learners in English as a subject and as a vehicular language. Paper presented at *ESSE-8 Conference* (29 August–2 September). London: Institute of English Studies, University of London.
- Kasper, L.F. (1994) Improved reading performance for ESL students through academic course pairing. *Journal of Reading* 37, 376–384.
- Kerr, J. (2003) The rest of the iceberg. Articulatory setting and intelligibility. In J. Burton and C. Clennell (eds) *Interaction and Language Learning* (pp. 99–114). Alexandria, VA: TESOL.
- Laitinen, J. (2001) *English Immersion in Finland – Dreams or Reality?* PhD thesis, University of Jyväskylä.
- Lasagabaster, D. and Doiz, A. (2004) The effect of the early teaching of English on writing proficiency. *International Journal of Bilingualism* 8 (4), 525–540.
- Lambert, W. and Tucker, R. (1972) *Bilingual Education of Children: The St. Lambert Experiment*. Rowley, MA: Newbury House.
- Lightbown, P.M. (1992) Can they do it themselves? A comprehension-based ESL course for young children. In R. Courchene, J.I. Glidden, J. St John and C. Thérien (eds) *Comprehension-Based Second Language Teaching* (pp. 353–370). Ottawa: University of Ottawa.
- Lightbown, P.M. and Spada, N. (1997) Learning English as a second language in a special school in Québec. *The Canadian Modern Language Review* 53 (2), 315–355.
- Markham, M. (1997) *Phonetic Imitation, Accent, and the Learner*. Lund (Sweden): Lund University Press.
- Martínez, J.A. and Jiménez, M. (1990) Changing attitudes towards learner's centredness. *Proceedings of VI Annual Conference of GRETA* (pp. 162–193). Granada.
- Mayer, M. (1969) *Frog, Where are you?* New York: Dial Books for Young Readers.
- Met, M. (1994) Teaching content through a second language. In F. Genesee (ed.) *Educating Second Language Children: The Whole Child, The Whole Curriculum, the Whole Community* (pp. 151–182). Cambridge: CUP.
- Munro, M.J. and Derwing, T.M. (1995) Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning* 45, 73–97.
- Munro, M.J., Flege, J.E. and MacKay, I.R.A. (1996) The effects of age on second language learning on the production of English vowels. *Applied Psycholinguistics* 17, 313–334.
- Munro, M.J. and Mann, V. (2005) Age of immersion as a predictor of foreign accent. *Applied Psycholinguistics* 26, 311–341.
- Muñoz, C. (2003) Los avances canadienses en la enseñanza de segundas lenguas: Reflexiones sobre nuestra situación. *Anuari de Filologia* 25 (12), 1–20.
- Muñoz, C. (2006) *Age and the Rate of Foreign Language Learning*. Clevedon: Multilingual Matters.
- Netten, J. and Germain, C. (2004) Developing the curriculum for intensive French. *The Canadian Modern Language Review* 60, 294–308.

- Nikula, T. (2005) English as an object and tool of study in classrooms: Interactional effects and pragmatic implications. *Language and Education* 16, 27–58.
- Nikula, T. and Marsh, D. (1998) Terminological considerations regarding Content and Language Integrated Learning. *Bulletin Suisse de Linguistique Appliquée* 67, 13–18.
- Paribakht, T.S. and Wesche, M.B. (1993) Reading comprehension and second language development in a comprehension-based ESL program. *TESL Canada Journal* 11 (1), 9–29.
- Pawley, C. (1983) French interview test, grade 12, Ottawa and Carleton, Spring 1982. *French Working Papers No. 151*. Ottawa: The Ottawa Board of Education.
- Pegolo, C. (1993) Fluency and intelligibility in speech production: Making the theories talk. *Prospect. A Journal of Australian TESOL* 8 (3), 52–62.
- Piper, T. and Cansin, D. (1988) Factors influencing foreign accent. *The Canadian Modern Language Review* 44 (2), 334–342.
- Quijada, J.A. (1997) Explicit teaching of English pronunciation to Spanish school children. In J. Leather and A. James (eds) *New Sounds 97: Proceedings of the 1997 Amsterdam Symposium on the Acquisition of Second Language Speech* (pp. 266–275). Amsterdam: University of Amsterdam.
- Ready, D. and Wesche, M. (1992) An evaluation of the university of Ottawa's sheltered program: Language teaching strategies that work. In R. Courchene, J.I. Glidden, J. St John and C. Thérien (eds) *Comprehension-Based Second Language Teaching* (pp. 389–405). Ottawa: University of Ottawa.
- Riney, T.J. and Flege, J.E. (1998) Changes over time in global foreign accent and liquid identifiability and accuracy. *Studies in Second Language Acquisition* 20, 213–243.
- Ruiz de Zarobe, Y. (2006) Garapen kognitiboa eta adina ingelesaren jabeakuntzan atzerriko hizkuntza gisa. In J. Cenoz and D. Lasagabaster (eds) *Hizkuntzak Ikasten eta Erabiltzen* (pp. 177–191). Leioa: University of the Basque Country.
- Scovel, T. (1981) The recognition of foreign accents in English and its implications for psycholinguistic theories of language acquisition. In J-G. Savard and L. Laforge (eds) *Proceedings of the 5Th Congress of L'Association Internationale de Linguistique Appliquée* (pp. 389–401). Québec: Les Presses de L'Université Laval.
- Scovel, T. (2006) Age, acquisition, and accent. In C. Abello-Contesse, R. Chacón-Beltrán, M.D. López-Jiménez and M.M. Torreblanca-López (eds) *Age in L2 Acquisition and Teaching* (pp. 31–48). Bern: Peter Lang.
- Shapson, S. and Kaufman, D. (1978) A study of a late immersion program in secondary school. *The Canadian Modern Language Review* 34 (2), 186–193.
- Snow, M.A. (1990) Language immersion: An overview and comparison. In A. Padilla, H.H. Fairchild and C.M. Valadez (eds) *Foreign Language Education: Issues and Strategies* (pp. 109–126). Newbury Park, CA: Sage.
- Spada, N. and Lightbown, P.M. (1989) Intensive ESL programmes in Quebec primary schools. *TESL Canada Journal* 7 (1), 11–32.
- Spada, N. and Lightbown, P.M. (2002) L1 and L2 in the education of the Inuit children in Northern Quebec: Abilities and perceptions. *Language and Education* 16 (3), 212–240.
- Sylvén, L.K. (2004) Teaching English or English teaching? On the effects of content and language integrated learning on Swedish learners' incidental vocabulary acquisition. PhD thesis, Göteborg University.
- Thompson, I. (1991) Foreign accents revisited: The English pronunciation of Russian immigrants. *Language Learning* 41 (2), 177–204.
- Varonis, E.M. and Gass, S. (1981). The comprehensibility of non-native speech. *Studies in Second Language Acquisition* 4, 114–136.

- Villareal, I. and García Mayo, M.P. (2007) Variability in tense and agreement morphology in English as L3: CBI learners vs. ESS learners. Paper presented at *EUROSLA 17*, Newcastle-upon-Tyne, 11–14 September 2007.
- Wesche, M.B. (1985) Immersion and the Universities. *The Canadian Modern Language Review* 41 (5), 931–940.
- White, J.L. and Turner, C.E. (2005) Comparing children's oral ability in two ESL programs. *Canadian Modern Language Review* 61 (4), 491–517.

Chapter 5

The Receptive Vocabulary of EFL Learners in Two Instructional Contexts: CLIL versus non-CLIL Instruction

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Introduction

The context where foreign language learning takes place has long been regarded as an important factor of variability in language achievement. Traditionally, two types of language learning contexts have been distinguished: natural contexts and classroom contexts. Natural learning contexts are characterized by the use of language for communication as well as by exposure to a great deal of varied input provided by native speakers. As to classroom contexts, Lightbown and Spada (1997) place them in a continuum that ranges from more traditional to more communicative. In both cases, the target language is taught by a teacher to a group of students in the physical setting of a classroom, but the instruction may vary from focus on form/forms to focus on the communicative use of the language. In the extreme pole of communicative classrooms, the authors place content-based language instruction (CBI), where students learn a subject matter such as science or music through a second or a third language. This type of language learning context does not exclude focus on the language itself but, as Lightbown and Spada remark, the emphasis is on using the language rather than on speaking about the language.

Within the last few decades, a considerable amount of research has been devoted to second language classrooms in order to ascertain whether the type of instruction has an effect on L2 acquisition, development and achievement. As Ellis (1995: 17) points out, this kind of research aims at the clarification of theoretical issues but above all aims at the improvement of language teaching by means of developing teachers' awareness of

the nature of the input that learners are exposed to. In this chapter, we attempt to ascertain whether the type of language instruction relates positively to vocabulary knowledge. To this end, we compare the English receptive vocabulary of learners of English as a foreign language (EFL) in two instructional contexts: English as a vehicular language (CLIL) and English as a subject (ES) (non-CLIL). As we will see in the method section, the former is characterized by the use of English to learn other curricular subjects, whereas the latter focuses on the learning of English language proper. In the present study, it is contended that those students who are exposed to the foreign language by means of CLIL will attain higher scores in receptive vocabulary tests in the target language than those who are taught the language as a subject. The remainder of this chapter will be structured as follows: first of all, we will review research on the effectiveness of content instruction on the mastery of a target language. Secondly, we will review receptive vocabulary studies in EFL. Following these brief reviews, we will describe the methodology used and we will report and discuss our findings.

Effectiveness of CBI/CLIL

As is consistently reported in the literature, CBI has its foundation in Canadian and US immersion programmes and in the last decades has spread to many other schools in Europe under the name of Content and Language Integrated Learning (CLIL). CBI and CLIL are usually used interchangeably in some contexts, although the former is more frequently found in reference to Canadian and US programmes and the latter to European programmes. Both terms share assumptions such as greater motivation towards the language, decrease of learners' anxiety, encouragement of language learning by means of comprehensible input, resemblance to language acquisition in natural contexts, integration of language skills, focus on meaning, fostering of learning and communicative strategies, development of academic skills and use of the target language as a vehicle for learning curricular subjects different from the language itself.

The list of books and articles on both CBI and CLIL in academic and pedagogical journals is very long. Likewise, there are many CLIL implementations in schools in Canada, US and Europe; yet, the number is small regarding empirical studies on the effectiveness of these approaches on learners' language achievement and development. The available research on linguistic immersion programmes (Johnson & Swain, 1997; Wesche, 2001) suggests that the process of acquisition of the second language echoes mother tongue acquisition. It also suggests that the intensive use of the second language as the language of instruction is very effective for the development of communicative competence (Brinton *et al.*, 1989; Genesee, 1987; Johnson & Swain, 1997; Lighbown & Spada, 1997; Snow *et al.*, 1989;

White & Turner, 2005), as well as for the development of learners' reading comprehension (McDonald, 1997). However, the benefits of CBI do not seem to work for the receptive and productive skills in the same way, as several scholars have claimed, they seem to be more evident in comprehension abilities than in production abilities (Bialystok, 2005; Cummins & Swain, 1986; Swain, 1985, 1995).

Empirical studies on the effectiveness of CLIL on the mastery of the second language are very scarce in Europe. As Dalton-Puffer and Nikula (2006a: 4) note: 'It is only over the last three years or so that a truly international research scene focusing on CLIL has started to evolve'. In the emerging panorama two paths of research can be traced. On the one hand, there are observational studies that look at the language used by teachers and students in CLIL classrooms by means of the adoption of a discourse perspective. The study conducted by Dalton-Puffer and Nikula (2006b) on teachers' and students' performance on directives in Finnish and Austrian CLIL classrooms is an example of this line of research. Other examples are Creese's (2005) longitudinal ethnography study on classroom interaction in three CLIL secondary schools in London, and also (in this volume) the study conducted by Whittaker and Llinares on the spoken and written discourse of secondary school teachers as well as secondary school students in CLIL classes in Madrid. On the other hand, there are a handful of studies that look at the effectiveness of CLIL on learners' language achievement by comparing the scores on tests obtained by CLIL and non-CLIL students (e.g. Kiziltan & Yangin Ersanli, 2007) as well as by contrasting CLIL and non-CLIL students' mastery of different aspects of language competence. In this connection we find the study on oral competence by Hernández (2005), and, in this volume, the studies by Villareal and García Mayo, Martínez Adrián and Gutiérrez Mangado. A recurring outcome reported in these studies is the supremacy of CLIL over non-CLIL students. However, some reservations are also put forward, as Hernández showed more improvement in CLIL students' oral competence than in non-CLIL students' but also provided evidence of the incapability of quite a number of CLIL students to solve their problems with formal aspects of the language. In a similar fashion, in their comparison of different aspects of the interlanguage function on EFL in CLIL and non-CLIL schools, Villareal and García Mayo found that CLIL students outperform non-CLIL students in overall oral production and in the use of affixal morphemes; however, both groups showed similar patterns of productive behavior regarding other aspects of tense and agreement.

Vocabulary Knowledge

A common belief among L2 vocabulary researchers is that the number of words known by learners makes a difference in language learning: those

learners with large vocabularies tend to perform better in the target language than learners with low vocabularies. Leading scholars in the field of vocabulary research (Laufer, 1998; Meara, 1996; Nation, 1990; Read, 1998) have highlighted the importance of vocabulary knowledge particularly in the first stages of learning a foreign language. As far as EFL in primary and secondary education is concerned, Jiménez Catalán and Terrazas (accepted) have remarked the importance of vocabulary knowledge as 'In these contexts, learning, as measured by tests, is going to be reflected in school grades, and as a result, is going to have an impact on students' lives'. These beliefs are supported by L2 vocabulary research, as we will see in the next paragraphs.

Regarding receptive vocabulary knowledge, there is evidence of its positive relation to text comprehension: learners with high vocabulary knowledge have fewer difficulties in understanding academic texts in the target language than learners with low vocabulary knowledge (Coady *et al.*, 1993; Laufer, 1992). Moreover, receptive vocabulary knowledge has proven to be positively related to incidental word learning; that is to say, those learners who hold higher receptive vocabularies seem to be more capable of acquiring more words by incidental exposure than learners with low vocabularies (Horst *et al.*, 1998).

Most research on L2 learners' receptive vocabulary knowledge has focused on vocabulary size as measured by learners' scores in tests. In this connection, Jiménez Catalán and Terrazas list the following lines of research: (1) comparisons of the vocabulary sizes of native speakers with vocabulary sizes of non-native speakers, learners of an L2 in school contexts (Cameron, 2002; Izawa, 1993; Jamieson, 1976); (2) study of the relationship between receptive and productive vocabulary knowledge (Fan, 2000; Laufer, 1998) and its correlation with language level in the L2 (Fan, 2000); (3) investigation of gains in receptive and productive vocabulary size after a period of time (Laufer, 1998), and after a programme abroad (Meara & Milton, 1995); (4) estimates of the vocabulary size of L2 learners (Cameron, 2002; Cobb & Horst, 1999; López-Mezquita, 2005; Nurweni & Read, 1999; Pérez, 2004; Quinn, 1968; Takala, 1985).

In their review of L2 vocabulary size research, Jiménez Catalán and Terrazas note very similar outcomes in studies with learners from different school contexts. Results point to a receptive vocabulary knowledge of about 1000 words (Quinn, 1968) 1200 words (Nurweni & Read, 1999), 1500 words (Takala, 1985), 2000 basic word families (Cobb & Horst, 1999) and difficulties in comprehension of the most frequent words in English (Cameron, 2002). Within the context of Spanish secondary education, López-Mezquita (2005) reports a mean of 941 words in fourth grade of Spanish secondary education (15–16 year olds), 1582 and 1885 words, respectively, in the first and second years of post-compulsory secondary education (11th and 12th grades). Taking as a background research on L2

receptive vocabulary size, Jiménez Catalán and Terrazas conducted an investigation on the receptive vocabulary knowledge of 270 learners of EFL in fourth grade of Spanish primary education (9–10 year olds). They reported a figure of 539 words among the 1000 most frequent words as average receptive vocabulary of those learners.

Although the above studies were carried out in different EFL contexts and in different educational contexts (primary, secondary and university), they did not set out to investigate the effectiveness of the type of language learning context on learners' receptive vocabulary knowledge. We are not aware of the existence of any studies of this kind in L2 vocabulary research, let alone in CLIL literature. The present study is designed to make an empirical contribution to these two areas of research by (1) investigating the relation of the type of language instruction on the receptive vocabulary in EFL and (2) comparing English receptive vocabulary in two communities with similar sociolinguistic characteristics but different language combinations.

The following research questions are posed in this study:

- (1) Will sixth primary school (11–12-year-old) EFL learners in CLIL instructional context outperform EFL learners in ES instructional context?
- (2) What will be the estimate of receptive vocabulary size of non-CLIL learners in CLIL and ES?

Method

Participants

The sample for the study is constituted by 130 female non-CLIL learners enrolled in sixth grade of primary education in two types of instructional contexts: CLIL and ES. The CLIL group is made up of $n = 65$ female students and comes from an intact CLIL classroom from a school for girls located in Bilbao. The ES group comprises $n = 65$ female students selected at random out of a pool of 114 females from four primary mixed schools located in Logroño, La Rioja. Both, the CLIL and the ES group, belong to urban middle-class schools located in close regions in the north of Spain with similar sociolinguistic characteristics but different language combinations; although the former has Spanish as L1, Basque as L2 and English as their L3, the latter has Spanish as L1 and English as L2.

At the moment of gathering the data (6th grade), the CLIL group had received approximately 960 hours of English instruction. In addition to this amount of exposure, they had also been taught Science throughout 1st and 2nd grade and Science and Art and Craft throughout third, fourth, fifth and sixth grade entirely in English. In contrast, the ES group had only received approximately 629 hours of English instruction.

Gathering instruments

Two vocabulary tests and one subset of a language-level test were administered to students in the spring 2006. The vocabulary tests were the 1000-word receptive test (Nation, 1993) and the 2000-frequency band of the receptive version of the Vocabulary Levels Test (VLT) (Nation, 1983) (version 2 revised by Schmitt *et al.* in 2001). Both are receptive vocabulary tests designed with a pedagogical purpose in mind. These bands represent words sampled from the 1000 and 2000, the most frequent words in English. In the case of the 1000-word test, testees are presented with 10 sets of six English words and three Spanish translations each set, whereas in the 2000-frequency band, testees are presented with 10 sets of six English words and three English definitions each set. Testees are asked to match the words to their Spanish translations in the 1000-word test and to their definitions in the case of the 2000-frequency band of the VLT. As far as the language-level test (*Corporate Author Cambridge ESOL, 2004*) is concerned, a subtest was chosen: a cloze test. See Appendices 1, 2 and 3 for examples of these tests adapted to our learning context. As said in Jiménez Catalán and Terrazas (accepted), several studies have shown the relationship between the cloze test and vocabulary size test (Fan, 2000; Jochems & Montens, 1988). Correlations have also been found between the cloze test and language proficiency (Hamania & Shikhani, 1986; Jochems & Montens, 1988; Lapkin & Swain, 1977). However, most of these studies have looked at adult learners rather than young learners. The exception is Lapkin and Swain (1977), who made use of English and French cloze tests to measure children's language proficiency in a bilingual programme. We believe that the use of a cloze test in our study may help us find out whether this subtest also relates to primary school learners' receptive vocabulary knowledge scores in English both as a vehicular language and as a subject.

Procedures

Students were given three tests to complete in two different class periods: the 1000-word test (1000 WT) and the 2000 bands from the VLT (2000 VLT), and then the cloze test all within a period of two weeks. The time for completion for each test was 10 minutes. In the scoring of the tests one point was given to students for each correct answer, 30 being the maximum score for the 1000 WT, 30 for the 2000 VLT and 8 for the cloze test.

Results

Research question 1

Will sixth grade primary school non-CLIL learners in CLIL outperform non-CLIL learners in ES?

Table 5.1 Means for the cloze test, the 1000 WT, and the 2000 VLT for CLIL and non-CLIL female students

	<i>Cloze</i> <i>max = 8</i>	<i>1000-WT</i> <i>max = 20</i>	<i>2000-VLT</i> <i>max = 30</i>
CLIL (<i>n</i> = 65) (Basque Country)	6.09	22.43	12.03
Non-CLIL (<i>n</i> = 65) (La Rioja)	3.76	21.00	9.02

Table 5.1 displays the means of the cloze test and the means of receptive vocabulary tests scores for both groups. The figures indicate that in terms of language level (as measured by the cloze test) there is a difference in favour of CLIL students. This tendency is corroborated by results on the two receptive vocabulary tests as students who receive content instruction through CLIL achieve higher scores than students enrolled in the ES instructional programme. The difference in favour of CLIL students is clear in all the three tests but particularly evident in the 2000 VLT, as shown below.

The differences between the CLIL and the ES students were assessed for statistical significance by means of the non-parametric Mann–Whitney Test. The values obtained for the 1000 WT were $U = 1570.000$, $z = -2.543$ and $P = 0.011$. As to the 2000 VLT, the values were $U = 1498.500$, $z = -2.864$, and $p = 0.004$. From the values obtained it can be claimed that CLIL instruction is more effective than ES instruction as it is the CLIL group that achieves better results in both tests. The difference between CLIL and ES students is significant at the 1000 WT level and highly significant at the 2000 VLT level.

Research question 2

What will be the estimate of receptive vocabulary size of non-CLIL learners in CLIL and ES instructional programmes?

In the calculation of the estimate of receptive vocabulary size we followed the indications given by Nation (1990: 76). The formula applied was: vocabulary size = n correct answers multiplied by the total n words in each band divided by the n items in the test. According to this calculation, for both groups the overall English receptive vocabulary falls within the 1000 most frequent words list. Receptive vocabulary estimates for the CLIL group at the 1000 WT is about 748 words and 700 words for ES students. At the 2000 VLT, the estimates of receptive vocabulary are of 800 words for CLIL students and 602 for ES students. Given the fact that the 2000 VLT comprises the 1000 first most frequent words and the second 1000 most frequent words, it is clear that in the two instructional contexts students' receptive vocabulary concentrates on the 1000 first most frequent words in English dropping sharply to the 1000 second most frequent words.

Discussion

Results indicate that EV instruction seems to be more effective than ES instruction as CLIL students achieve better results than non-CLIL students. The results point to a significantly better performance on the cloze and receptive tests of CLIL students over non-CLIL students. This supremacy is particularly evident in the 2000 VLT and in the cloze test what point not only to higher level on receptive vocabulary but also to higher language level on the part of CLIL students compared to non-CLIL ones. However, care should be taken in the interpretation of these results as on the one hand, the vocabulary difference between the two groups is no higher than 200 words, and on the other, CLIL instruction usually comes hand in hand with more hours of instruction, which, of course, involves more exposure to the target language. As in most CLIL studies, in which content instruction is related to more language exposure, in the present study it is not possible to draw a sharp line between the two variables: we cannot be sure of how much is directly related to the effect of CLIL proper and what is due to the effect of more hours of instruction. In fact, as we saw in the introduction there is indeed empirical evidence of the positive effects of the increase of hours of instruction on L2 and L3 language acquisition and development. Concerning the effects of CLIL on EFL vocabulary knowledge, we refer to the study carried out by Sylvén (2004, 2006) in Swedish secondary schools. She proved a positive correlation between more hours of exposure and greater vocabulary acquisition and higher degree of communicative competence in the target language. In her study, CLIL students showed greater vocabulary knowledge than non-CLIL students, while also showing greater exposure to English language outside school through television, reading and the Internet than non-CLIL students. This extracurricular exposure was twice as much for the CLIL group than for the control group. In the light of her results, we again cannot be sure whether higher vocabulary knowledge is due to CLIL proper or to the effects of a greater exposure. She claimed that:

[...] it was probably not only the CLIL method per se that was decisive as regards the results on vocabulary tests. Rather, one of the most important factors influencing the size of students' English vocabulary was the reading of English texts outside of the school curriculum regardless of teaching method.

Although in the present study significant results were obtained in favor of the CLIL group, we should bear in mind that those results were achieved by means of receptive vocabulary tests that measure discrete decontextualized receptive vocabulary rather than integrative vocabulary knowledge. As several scholars have pointed out (Crandall, 1995; Kasper, 2000; Lightbown & Spada, 1997) referring to CBI, given the

characteristics of CLIL instruction (focus on content rather than language), responses to questionnaires, checklists, inventories and journals should be in use to assess language gains, since learners have received integrated input and they have been required to use their skills and strategies to deduce meaning and information and also to give opinions, summarize information and think critically.

We were aware of the fact that a test that has been proved to be appropriate for assessing receptive vocabulary in EFL as a subject might not be as appropriate to assess EFL as a vehicular language. However, the reverse is also true, given the nature of English as a subject class, whereas in spite of the introduction of the communicative approach, students have to meet pencil and paper examinations in which discrete items are included. However, in spite of this limitation, CLIL students still obtain better scores than non-CLIL students. Bearing in mind the characteristics of the language learning contexts and the tests used in the elicitation of the data, we may gather that the scores may be representing the latter in a quite practical way and thereby underestimating the former's true receptive vocabulary knowledge. Should we have used integrative tests to assess receptive vocabulary knowledge, we gather that CLIL students would have obtained even better results than non-CLIL students. However, in order to prove this hypothesis, more studies are needed in which vocabulary tests of an integrative kind are given to both groups of students. In addition, discrete receptive tests based on frequency, as is the 1000-word test and the 2000-frequency band employed in our study, should be complemented by specific vocabulary tests on the vocabulary and terms related to the curricular subjects studied by CLIL students by means of English language. This would allow us to have a more accurate picture of learners' vocabulary differences in a CLIL and in a non-CLIL situation. For the moment, the results of the present study only allow us to claim that students who have English as a vehicular language (CLIL instruction) achieve higher scores in a cloze test as well as in the 1000-word test and the 2000-frequency band of the VLT than the sample of non-CLIL-based students.

Likewise, the present study has focused on the comparison of the receptive English vocabulary of 6th grade female students in a CLIL and in a non-CLIL learning school. More studies are needed from different flanks to corroborate the results obtained here. Firstly, it would be convenient to conduct research with larger samples of students in which mixed groups of male and females were included. It may be the case that females have an advantage in language learning over male students as different studies have reported evidence in this line (see Sunderland, 2000, for a review). Secondly, the sample should contain students of different ages as the study conducted by Bialystok *et al.* (2004) has provided evidence of a decrease in the cognitive advantages found in bilingual students over monolingual students, as students get older.

Acknowledgements

We would like to acknowledge here the financial support of FEDER and the 'Ministerio de Ciencia y Tecnología' through grants HUM 2006-09775-C02-02 and HUM2006-09775-C02-01/FILO.

References

- Bialystok, E. (2005) Consequences of bilingualism for cognitive development. In J. Kroll and A. De Groot (eds) *Handbook of Bilingualism: Psycholinguistic Approaches*. Oxford: Oxford University Press.
- Bialystok, E., Craik, F.I.M., Klein, R. and Viswanathan, M. (2004) Bilingualism, aging, and cognitive control: Evidence from the Simon task. *Psychology and Aging* 19 (2), 290–303.
- Brinton, D., Snow, M.A. and Wesche, M.B. (1989) *Content-Based Second Language Instruction*. Boston: Heinle and Heinle Publishers.
- Cameron, L. (2002) Measuring vocabulary size in English as an additional language. *Language Teaching Research* 6 (2), 145–173.
- Coady, J., Magoto, J., Hubbard, P., Graney, J. and Mokhtari, K. (1993) High frequency vocabulary and reading proficiency in ESL readers. In T. Huckin, M. Haynes and J. Coady (eds) *Second Language Reading and Vocabulary* (pp. 217–228). Norwood, NJ: Ablex.
- Cobb, T. and Horst, M.E. (1999) Vocabulary sizes of some city university students. *Journal of the Division of Language Studies of City University of Hong Kong* 1/1. On WWW at <http://www.er.uqam.ca/nobelr21270/cv/CitySize.html/>
- Crandall, J. (ed.) (1995) *ESL through Content-Area Instruction*. McHenry, H.: Delta System.
- Creese, A. (2005) Is this content-based language teaching? *Linguistics and Education* 16, 188–204.
- Cummins, J. and Swain, M. (1986) *Bilingualism in Education: Aspects of Theory, Research and Policy*. London: Longman.
- Dalton-Puffer, C. and Nikula, T. (2006a) Introduction. *Vienna English Working Papers (VIEWS)* 15 (3), 4–7.
- Dalton-Puffer, C. and Nikula, T. (2006b) Pragmatics of content-based instruction: Teacher and student directives in Finnish and Austrian classrooms. *Applied Linguistics* 27 (2), 241–267.
- Ellis, R. (1995) *The Study of Second Language Acquisition*. Oxford: Oxford University Press.
- Fan, M. (2000) How big is the gap and how to narrow it? An investigation into the active and passive vocabulary knowledge of L2 learners. *RELC Journal* 31 (2), 105–119.
- Genesee, F. (1987) *Learning through Two Languages: Studies of Immersion and Bilingual Education*. Rowley, MA: Newbury House.
- Hamania, E. and Shikhani, M. (1986) Interrelationships among three tests of language proficiency: Standardized ESL, cloze and writing. *TESOL Quarterly* 20 (1), 97–109.
- Hernández, A. (2005) Content-based instruction in an English oral communication course at the University of Costa Rica. *Actualidades Investigativas en Educación* 5 (2), 1–25.
- Horst, M., Cobb, T. and Meara, P. (1998) Beyond a clockwork orange: Acquiring second language vocabulary through reading. *Reading in a Foreign Language* 11, 207–223.

- Izawa, H. (1993) The English vocabulary of 21 Japanese adults on a high proficiency level. *JALT Journal* 15 (1), 63–75.
- Jamieson, P. (1976) The acquisition of English as a second language by young Tokelau children living in New Zealand. Unpublished PhD thesis, Victoria University of Wellington.
- Jiménez Catalán, R.M. and Terrazas, M. (in press) The receptive vocabulary of English foreign language young learners. *JES (Journal of English Studies)*.
- Jochems, W. and Montens, F. (1988) The multiple-choice cloze test as a general language proficiency test. *ITL Review of Applied Linguistics* 81, 139–59.
- Johnson, K. and Swain, M. (1997) *Immersion Education: International perspectives*. New York: Cambridge University Press.
- Kasper, L. (2000) *Content-Based College ESL Instruction*. Mahwah, NJ: Lawrence Erlbaum.
- Kiziltan, N. and Yangin Ersanli, C. (2007) The contributions of theme-based CBI to Turkish young learners' development in English. *Journal of Language and Linguistic Studies* 3 (1), 133–149.
- Lapkin, S. and Swain, M. (1977) The use of English and French cloze tests in a bilingual education program, evaluation: Validity and error analysis. *Language Learning* 27 (2), 279–314.
- Laufer, B. (1992) How much lexis is necessary for reading comprehension? In P.J.L. Arnaud and H. Béjoint (eds) *Vocabulary and Applied Linguistics*. London: Macmillan.
- Laufer, B. (1998) The development of passive and active vocabulary in a second language: Same or different? *Applied Linguistics* 19 (2), 255–271.
- Lightbown, P. and Spada, N. (1997) *How Languages are Learned*. Oxford: Oxford University Press.
- López-Mezquita, M.T. (2005) *La evaluación de la competencia léxica: Tests de vocabulario, su fiabilidad y validez*. Doctoral dissertation, Universidad de Granada.
- McDonald, B. (1997) The impact of content-based instruction: Three studies. *Focus on Basics. Connecting Research & Practice* 1 (D). On WWW at <http://www.ncsall.net/?id=429>.
- Meara, P. (1996) The dimensions of lexical competence. In G. Brown, K. Malmkjaer and Y. Williams (eds) *Performance and Competence in Second Language Acquisition*. Cambridge: Cambridge University Press.
- Meara, P. and Milton, J. (1995) How periods abroad affect vocabulary growth in a foreign language. *ITL Review of Applied Linguistics* 107/108, 17–34.
- Nation, I.S.P. (1983) Teaching and testing vocabulary. *Guidelines* 5 (1), 12–25.
- Nation, I.S.P. (1990) *Teaching and Learning Vocabulary*. New York: Newbury.
- Nation, I.S.P. (1993) Measuring readiness for simplified material: A test of the first 1,000 words of English. *Simplification: Theory and Application*, M.L. Tickoo (ed.). RELC Anthology Series 31. Victoria University of Wellington.
- Nurweni, A. and Read, J. (1999) The English vocabulary knowledge of Indonesian university students. *English for Specific Purposes* 18, 161–175.
- Pérez, C. (2004) Assessing the vocabulary size of Spanish students of English Philology: An empirical investigation. In J.L. Martínez-Dueñas, N. McLaren, C. Pérez Basanta and L. Quereda (eds) *Towards an Understanding of the English Language: Past, Present and Future. Studies in Honour of Fernando Serrano*. Granada: Universidad de Granada.
- Quinn, G. (1968) *The English Vocabulary of Some Indonesian University Entrants*. English Department Monograph IKIP Kristen Satya Wajana: Salatiga.
- Read, J. (1998) Measuring the vocabulary knowledge of second language learners. *RELJ Journal* 19, 12–25.

- Schmitt, N., Schmitt, C. and Clapham, C. (2001) Developing and exploring the behaviour of two new versions of the Vocabulary Levels Test. *Language Testing* 18 (1) 55–88.
- Snow, M.A., Met, M. and Genesee, F. (1989) A conceptual framework for the integration of language and content in second/foreign language instruction. *TESOL Quarterly* 23 (2) 201–217.
- Sunderland, J. (2000) Issues of language and gender in second and foreign language education. *Language Teaching* 33, 203–223.
- Swain, M. (1985) Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass and C. Madden (eds) *Input in Second Language Acquisition*. Rowley, MA: Newbury House.
- Swain, M. (1995) Three functions of output in second language learning. In G. Cook and B. Seidhofer (eds) *Principle and Practice in Applied Linguistics*. Oxford: Oxford University Press.
- Sylvén, L.K. (2004) *Teaching in English or English teaching? On the Effects of Content and Language Integrated Learning on Swedish Learners' Incidental Vocabulary Acquisition*. Göteborg: Department of English, Göteborg University.
- Sylvén, L.K. (2006) Extramural exposure to English. CLIL Special Issue. *Views* 15 (3) 53.
- Takala, S. (1985) Estimating students' vocabulary sizes in foreign language teaching. In V.H. Kohonen, von Essen and C. Klein-Bradley (eds) *Practice and Problems in Language Testing*. Finland: Publications de l'Association Finlandaise de Linguistique Appliquée (AfinLA).
- Wesche, M.B. (2001) French immersion and content-based language teaching in Canada. *The Canadian Modern Language Review* 58 (Special Issue), 201–217.
- White, J. and Turner, C. (2005) Comparing children's oral ability in two ESL programs. *The Canadian Modern Language Review* 61 (4), 491–517.

Chapter 6

Young Learners' L2 Word Association Responses in Two Different Learning Contexts

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Introduction

Word association tests have been used in the field of applied linguistics as a means to explore the mental lexicon. These kinds of tests often present the instability of learner responses (Meara, 1983; Read, 1993). However, scholars such as Singleton (1999: 208) have claimed that 'sensitively and sensibly interpreted, word-association test data have the capacity to complement and corroborate findings that emerge from analyses of other types of lexical data'. We believe that they can provide a window on L2 learners' mental lexicon development. Thus, in our study, we aim at shedding some further light on this issue by analysing young learners' L2 association responses.

The purpose of our study is two-fold. First of all, we aim at describing the characteristics of the productive lexical profile of 130 young Spanish learners of English as a foreign language (EFL) at the end of primary education in two different learning contexts: Content and Language Integrated Learning (henceforth CLIL), in which learners are taught some learning subjects through a foreign language with dual-focused aims, the learning of content and the simultaneous learning of a foreign language (Marsh, 1994) versus learning English as a subject in the Spanish primary curriculum, on the basis of informants' patterns of association in a free word association task. Secondly, we aim at examining similarities and differences in their responses by describing the properties of the links between them. Thus, we will analyse word association responses on the basis of five different categories: clang associations, syntagmatic associations, paradigmatic associations, misunderstandings and uninterpretable associations.

Our chapter is divided into three sections. The first section provides a review of those studies related to our research. The second section describes the specific goals and the methodology followed in our study. The last section displays the data obtained and attempts at their interpretation.

Previous Studies

Regarding the previous study of word associations, we find different types of studies that can be grouped into three main lines of research:

- (1) Studies that have aimed at measuring vocabulary size by means of using word association tests (Fitzpatrick, 2000; Jiménez Catalán & Moreno Espinosa, 2005; Meara & Fitzpatrick, 2000). These studies have used Lex30, a breadth test of productive vocabulary, to elicit informants' productive vocabulary on the basis of a free word association test.
- (2) Investigations on the relation between L2 word association patterns and the nature of the mental lexicon. Among them we find the studies conducted by Dax (2006), Fitzpatrick (2006), Meara (1983) and Söderman (1993). As Singleton (1999) points out, the views seem to be two-tier. On the one hand, there is evidence in favour of the 'phonological nature' of the lexicon (Meara, 1983); on the other, researchers such as Maréchal (1995) have put forward that 'clang' responses are very much the exception, not the rule. Furthermore, findings show that at some point in the learning process, there is a shift in association types (from syntagmatic to paradigmatic), which indicates increased lexical knowledge.
- (3) Comparative studies on
 - (a) the similarities and differences of word association responses by native and non-native speakers (Fitzpatrick, 2006; Kruse *et al.*, 1987; Namei, 2004; Schmitt, 1998; Sökmen, 1993; Wilks *et al.*, 2005). Research is not conclusive at this point: on the one hand, research findings point to significant differences in the associations between native speakers and EFL learners (Fitzpatrick, 2006). Schmitt (1998) even devises a four-level descriptive system in order to determine whether associations are native-like.

On the other, the investigation carried out by Kruse *et al.* (1987) aims at proving that word association tasks might be unreliable since they cannot be used as a measure of nativeness. The tasks seemed to be unable to measure non-native speaker proficiency, as no clear correlation was found between association test results and proficiency measures. These results seem to be in line with Wolter (2002) whose findings do not support the notion that L2

word associations are linked to proficiency. However, he believes that there is still hope and that a word association/proficiency measure can be developed in the future.

- (b) the similarities and differences of word association responses according to the gender of test takers (Jiménez Catalán & Moreno Espinosa, 2004; Sökmen, 1993). Sökmen found that there were significant differences according to gender, ESL level, education and mother tongue, while age did not manifest any noteworthy variance. Jiménez Catalán and Moreno Espinosa's preliminary results are also in line with Sökmen's, showing that the more infrequent the words were, the greater the difference between the two sexes' responses.
- (c) the suitability of computer simulations to investigate L2 lexical networks (Wilks & Meara, 2002; Wilks *et al.*, 2005). Wilks *et al.* (2005) conclude that simulations can work as testing instruments in SLA; however, the fact that few people have the computational skills required to work through the implications of a simulation model makes it difficult to develop the kind of necessary critical dialogue to allow the vocabulary field to move forward in theoretical terms.

Our study resembles the investigations that have focused on the analysis of L2 word association patterns. Likewise, it has points in common with research conducted by Fitzpatrick (2000), Jiménez Catalán and Moreno Espinosa (2005) and Meara and Fitzpatrick (2000) since Lex30 is the word association tool used to recall informants' word associations. However, there are also differences between these studies and the present investigation concerning the sample of informants, their school setting and the focus of research. The informants of most studies are intermediate to advanced learners of English, whereas our sample of informants comprises L2 young primary school learners in two different instructional settings (CLIL versus non-CLIL). Furthermore, the studies that have used Lex30 as their instrument of analysis have restricted themselves to the presentation of quantitative data, whereas we aim at going one step further focusing specifically on the detailed analysis of associations from a qualitative point of view.

The Study

As said in the introduction, our study has two objectives. First, we aim at discovering the characteristics of L2 young learners' responses in a free word association task in two different instructional settings, in order to fulfil our second objective, which is to investigate whether there are any similarities and/or differences in their patterns of association,

and henceforth in their L2 lexicon, through the analysis of the quantitative and qualitative aspects of learners behaviour.

Regarding our first objective, and specifically for each sub-group of informants, we intend to find out: (1) the number of types and tokens recalled in the word association task as a whole; (2) the characteristics of word association responses indicated by the lexical frequency profile reported by Lex30; (3) the part of speech of associations (nouns, verbs, adjectives and adverbs); and (4) the top four most frequent responses elicited by each group of informants on the basis of each stimulus word. As to our second objective, we aim at discovering the patterns of association responses in order to ascertain any similarities and/or differences between both sub-groups of EFL learners.

Informants

A total of 130 Spanish primary school learners participated in this study. They were all enrolled in sixth grade of primary education. Our sample of 11 to 12-year-old informants was divided into two different sub-groups of learners. Group A represents an intact group of 65 female students from a Basque single-sex private school receiving state subsidy, who live in a bilingual community (where Basque and Spanish are spoken), their L3 being English. Group B comprises a random selection of 65 female students (out of a sample of 114 female informants) who live in a monolingual region in northern Spain, their L2 being English. The latter study in four different co-educational schools in La Rioja's capital city (two of them are state schools and the other two are private schools receiving state subsidy).

Even though our two sub-groups of informants represent a rather homogeneous sample of urban middle-class population with regard to age, gender and education, there are also some characteristic features that distinguish one group from the other. Thus, their sociolinguistic background differs on the basis of their mother tongue and cultural features. Furthermore, their hours of exposure to formal English instruction are also different. Although both groups of informants started learning English when they were three, in the time of eliciting the data (Spring 2006), group A had received approximately 960 hours of English instruction, whereas group B had received about 629 hours. Their method of instruction also differs in the sense that group A comprises EFL learners who have studied English not only as a curricular subject at the rate of five hours a week, but also as a vehicular language to study Science (from first to sixth grade of primary education), and Arts and Craft (from third to sixth grade of primary education) for two additional hours a week. On the other hand, group B subsumes learners of English as a curricular subject at the rate of three hours per week (see Figure 6.1 for a summary of informants' main distinguishing features).

	AGE	HOURS OF INSTRUCTION	GENDER	COMMUNITY	EFL	INSTRUCTIONAL CONTEXT
GROUP A (<i>N</i> = 65)	11/12 years old	960	Female	Bilingual (Basque and Spanish)	L3	English as a vehicular language (CLIL)
GROUP B (<i>N</i> = 65)	11/12 years old	629	Female	Monolingual (Spanish)	L2	English as a curricular subject (Non-CLIL)

Figure 6.1 Main characteristics of our informants

Instruments and procedures

Lex30 (Meara & Fitzpatrick, 2000), a breadth test of productive vocabulary, was the instrument used to elicit testees' word association responses. It is a free word association task that contains 30 stimulus words, included within Nation's (1984) first thousand most common English content words. Prompts were considered to be suitable to elicit responses from our sample of informants, since all the stimulus words were within the constraints of a basic vocabulary suitable for young learners of EFL enrolled in primary education.

It is well known that the selection of prompts is important in a word association task since it may influence results. Meara and Fitzpatrick (2000: 22) claim that, 'none of the stimulus words (included in Lex30) typically elicits a single, dominant primary response'. Furthermore, they claim that their cues generate a wide variety of infrequent responses. Therefore, we consider that they may be suitable to open a window onto our sample of testees' L2 lexicon.

The test was administered in class with no access to dictionaries or other aids. Testees were requested to produce four responses to each prompt word, 15 minutes being the maximum allotted time for the whole task. We believe that the number of four responses per cue was suitable to avoid an association chain, since as Fitzpatrick (2006) notes, asking testees for a wide range of responses may result in each response in the list acting as a stimulus word for the next response.

Results and Discussion

General characteristics of vocabulary in the word association test

The data were analysed on the basis of each independent sub-sample of informants: (1) by analysing the results of the test as a whole and (2) according to each individual prompt. Table 6.1 contains the total number of occurrences of words (i.e. tokens) as well as the lemmatised types

Table 6.1 Tokens and types produced by each group of informants in the whole test

<i>Informants</i>		<i>Tokens -as a group-</i>	<i>Lemmatised types -as a group-</i>
Group A (N = 65)	CLIL	814	580
Group B (N = 65)	Non-CLIL	650	522

produced by each group of informants in the word association test. We observe that the number of tokens and types produced by group A (in the whole task) outnumber those recalled by group B. These data seem to be in line with previous research that put forward that the larger the number of tokens, the higher the learners' proficiency level (Arnaud, 1984; Lambert, 1956; Randall, 1980, cited by Kruse *et al.*, 1987). Thus, by bearing in mind that group A had received 331 hours more of formal instruction than group B, that trend was expected. Furthermore, previous research carried out by Jiménez Catalán and Ruiz de Zarobe (in this volume) with the same informants had indicated that there was a difference in favour of CLIL instruction not only on the basis of receptive vocabulary size, but also on the basis of results from a cloze test.

However, we should note that even though group A seems to yield better results than group B for both categories (types and tokens), the existing difference is not so big when paying attention to the overall number of types, since group A produced 580 types as opposed to the 522 recalled by group B. The mean number of types produced by each sub-group of informants according to each cue was also calculated. Thus, group A produced a mean number of 31.67 types (SD 14.98), as opposed to the 27.4 (SD 14.79), recalled by group B. These figures seem to indicate that although group A achieved better results than group B, those results were not so overwhelming if we compare the great difference of formal instruction exposure between groups.

Word association responses were further analysed by means of Lex30. This electronic tool allocates each response to one of the four categories: (1) Level 0 words that include high-frequency structural words, proper names and numbers (it should be noted that answer blanks were also considered by the programme as Level 0 words in order to standardise for a text containing 120 words, that is, an average of four associations per 30 cues); (2) Level 1 words that include the 1000 most frequent content words in English; (3) Level 2 words that subsume the 2000 most frequent content words in English; and (4) Not in the List (NiL) band that includes words that are not found in the previous lists. Each word located within Level 2 words or NiL band scores one point, up to a maximum of 120; any word outside those two categories scores zero.

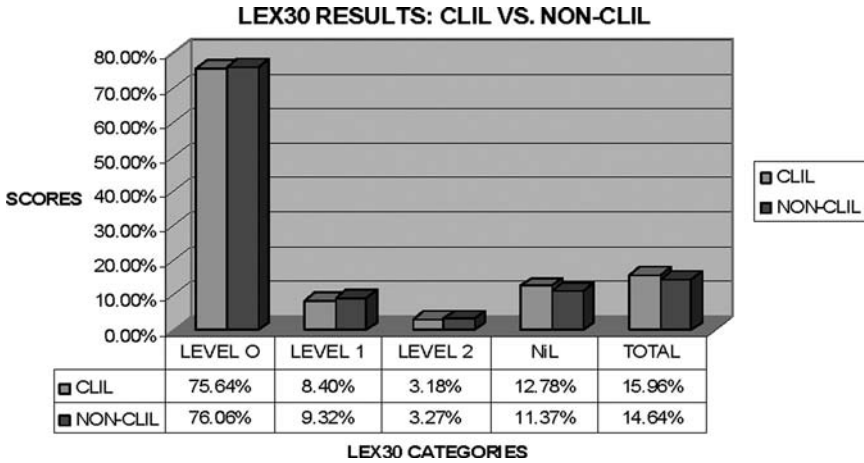


Figure 6.2 Mean Lex30 lexical frequency profile

In Figure 6.2, we can see the mean profile for Lex30. Level 0 words represent 76.06% of group B informants' L2 associations, as opposed to 75.64% provided by group A. Since our subjects are low-level learners, it is not surprising that the great majority of their productive vocabulary falls within Level 0 words, as the number of blanks left in the test was also counted in this level.

Jiménez Catalán and Moreno Espinosa (2007) in a three-year longitudinal study with primary school EFL learners demonstrated that the lower the number of Level 0 words in Lex30, the higher the proficiency. Furthermore, those results were in line with Riegel *et al.* (1967) who found that the number of blank responses in a word association test could be correlated to their proficiency levels (cited by Kruse *et al.*, 1987). Thus, our present results seem to follow the same tendency, indicating that the productive vocabulary size of group A is slightly higher than group B.

Taking a closer look at the data, we can observe that although group B informants seem to provide a higher percentage of Level 1 words (9.32%) than group A (8.40%), and roughly the same percentage of Level 2 words (3.27% and 3.18%, respectively), they recalled a lower percentage of infrequent words (i.e. NiL) than group A, and consequently their Lex30 final score was lower. Thus, Lex30 scores reveal that group A has a slightly higher productive vocabulary size (15.96%) than group B (14.64%), displaying the former, more lexical richness in the word association test than the latter, by recalling a higher number of infrequent words. These figures seem to confirm Jiménez Catalán *et al.*'s (2006) findings with regard to the productive vocabulary of the same sub-groups of informants in a writing task, where group A displayed more L2 lexical richness and sophistication in a guided composition than group B.

Table 6.2 Mean percentage of associations by class word

	<i>Nouns</i>	<i>Adjectives</i>	<i>Verbs</i>	<i>Adverbs</i>
Group A (CLIL)	82.04%	9.61%	8.09%	0.26%
Group B (non-CLIL)	80.77%	6.37%	12.42%	0.44%

Inferential statistics were used in order to determine whether the differential treatment (CLIL versus non-CLIL) produced differential effects in the productive vocabulary of our sample of informants according to Lex30 scores. On the basis of *t*-test results for two-independent samples, we can claim that both groups of subjects are significantly different ($t = 3.26$; $df = 128$; $p = 0.001$) on the basis of treatment means. However, results indicate that the difference between both groups of informants slightly relies on vocabulary size but on vocabulary depth. Therefore, the method of instruction seems to have an effect with regard to quality, but not a great one on the basis of vocabulary size.

Table 6.2 displays the distribution of word association responses on the basis of the four traditional classes distinguished within content words: nouns, adjectives, verbs and adverbs. As can be observed, the class of content words most frequently used by both groups of informants is nouns, followed at a great distance by adjectives, verbs and adverbs in the case of group A; on the other hand, they are followed by verbs, adjectives and adverbs on the basis of group B's results. The predominance of nouns in the early productive lexicon of both groups of subjects seems to be in line with previous research on L2 vocabulary acquisition and development conducted within the GLAUR research group (Jiménez Catalán & Ojeda Alba, in press; Ojeda Alba & Jiménez Catalán, 2007). Surprisingly, the number of verbs and adverbs is higher in group B than in group A; one possible explanation is that the difference between both groups with regard to the distribution of adjectives, verbs and adverbs may not arise due to universal cognitive constraints, but it could be the result of the input children have received in their formal instruction (Källkvist, 1999).

Word association responses

As Fitzpatrick (2006: 126) notes, studies investigating L2 word association responses tend to measure them in one of the two ways: (1) by comparing the responses against native speaker word association norms 'to determine how "native-speaker-like" the responses are', or (2) by classifying the word association responses according to the conventional categories of association, or some variations on these.

CATEGORY	MAIN FEATURES
SYNTAGMATIC	Position-based associations that include: consecutive yx , collocation; phrasal xy collocation; and different word class collocation. E.g. teacher ~ school, dog ~ bark, sun ~ hot.
PARADIGMATIC	Meaning-based associations that include: synonymy (e.g. quick ~ fast), antonymy (e.g. silly ~ intelligent), hyponymy (e.g. cat ~ animal), co-hyponymy (e.g. table ~ chair), hypernymy (e.g. fruit ~ apple), meronymy (e.g. bedroom ~ house).
CLANG	Form-based associations including orthographic (e.g. there ~ three) as well as phonological associations (e.g. dog ~ bog, think ~ thank). This category also includes responses that are simply a repetition of the stimulus word.
MISUNDERSTANDINGS	Responses based on: false cognates, mistaken cues for another English word.
UNINTERPRETABLE RESULTS	No clear relationship has been identified between the prompt and the word association response.

Figure 6.3 Definition of word association categories

In this investigation, we will follow the latter trend, by categorising L2 word associations according to their association types into five categories: (1) syntagmatic associations; (2) paradigmatic associations; (3) clang associations; (4) misunderstandings; and (5) uninterpretable responses. These categories are an adaptation of Fitzpatrick's (2006) model for analysing word association categories and sub-categories. Figure 6.3 shows a definition of the five categories. Note that x stands for stimulus word and y for response word.

On closer inspection of Figure 6.4, we can see that the syntagmatic and paradigmatic associations were the dominant response categories for both groups of informants, who showed a clear preference for syntagmatic responses, group A elicited 51.1%, whereas group B recalled 47.6% of them. These findings seem to be in line with previous research that found that frequent stimulus words and low-level learners usually elicit syntagmatic association responses (Dax, 2006; Söderman, 1993).

With regard to paradigmatic responses, group B produced a slightly larger number of them than group A (42.9% and 40.2%, respectively). Notwithstanding the slightly higher number of paradigmatic associations provided by the less proficient group of learners (i.e. group B), our results do not seem to be surprising considering the fact that findings

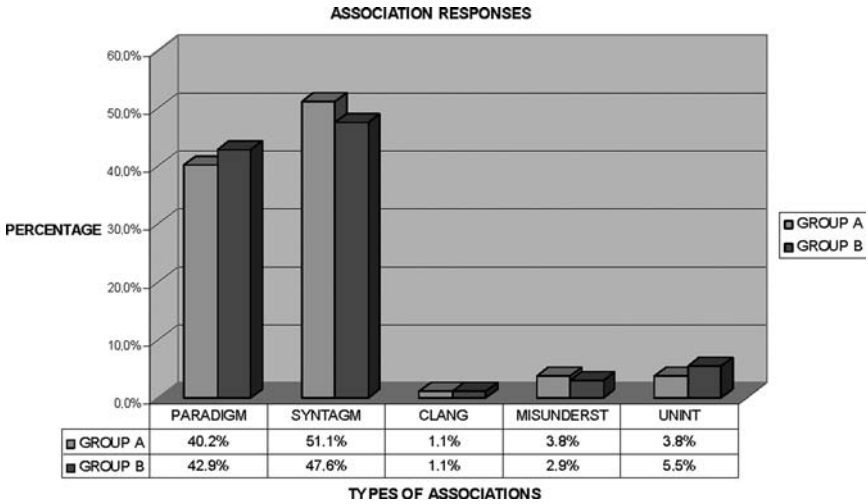


Figure 6.4 Mean percentage of responses given by both groups of informants

Note: PARADIGM = paradigmatic; SYNTAGM = syntagmatic; MISUNDERST = misunderstanding; and UNINT = uninterpretable

reported by other scholars (Fitzpatrick, 2006; Greidanus & Nienhuis, 2001; Kruse *et al.*, 1987; Söderman, 1993; Wolter, 2002) indicate that there does not seem to be a significant relationship between proficiency levels and association categories.

Both groups elicited exactly the same number of clang associates (1.1%), which actually represents the least popular of all associations. Söderman (1993) suggests that difficult words seem to be prone to elicit clang associations. Bearing this in mind, she states that such may be the reason why her low-level informants produced such a small number of clang associations. Thus, we could interpret the tiny number of clang associates elicited by our sample of informants in line with her interpretation, as the stimuli were frequent words, all found within the first thousand most frequent content words in English.

Misunderstandings constitute 3.8% of group A, whereas 2.9% of group B. With regard to uninterpretable associations, we can see that group B accounts for 5.5% of responses, whereas a lower number (3.8%) is elicited by group A.

The different proportions of word association categories between groups may support the line taken by Söderman (1993) who relates this phenomenon to the degrees of lexical knowledge of individual words in the lexicon of learners rather than to the L2 lexicon as a whole. Another possible explanation is the one put forward by Fitzpatrick (2006) who

claims that it may be due to the idiosyncratic responses provided by L2 learners since they are related to their own experience and therefore they are particular to each individual.

Having displayed the associations provided by each group of informants, the data were compared using a *t*-test analysis in order to identify whether there was a statistically significant difference between them. Results showed that there was no significant difference between any groups in any of the different categories.

In this respect, it was also interesting to determine whether the scores for the different types of associations correlated with language proficiency. To this end, we correlated the standard results from the association categories with their proficiency level as estimated by the scores of a receptive breadth test (i.e. the receptive version of the Vocabulary Levels Test) and a productive breadth test (i.e. Lex30). The correlations were found not to be significant in any of the breadth tests. Consequently, this was taken to be a further indication that there was no significant relationship between association categories and language proficiency. These results were in line with previous investigations (Fitzpatrick, 2006; Greidanus & Nienhuis, 2001; Kruse *et al.*, 1987; Söderman, 1993; Wolter, 2002).

In addition to the quantitative associative results obtained in the test, there are a number of other factors to be considered, such as analysing word association responses from a qualitative point of view. It has been claimed that L2 learners tend to produce much more diverse and unstable association responses than native speakers. According to Read (1993), the more proficient the L2 learners are, the more native-like patterns they provide. Appendix 1 displays the top four most frequent responses recalled by each group of informants according to each cue; detailed discussion of every single response would go beyond the scope of this chapter; however, we would like to highlight some association responses so as to throw some light into our sample of testees' L2 lexicon.

Thus, the word association responses recalled by our sample of primary school informants can be classified around several domains:

- (1) Rather prototypical clusters of responses elicited by cues such as *fruit* and *furniture*.
- (2) Associations that reveal some of the cultural and sociolinguistic aspects of their environment. Thus, it is noteworthy that the responses elicited by the cue *cloth* and the ranking of the response words *skirt* and *trousers* in both groups of learners. The most frequent response provided by group A is *skirt* (20%) followed by *trousers* (14.19%), whereas in group B, it just happens the other way round, *trousers* (17.73%) is the second most frequent association recalled by informants, followed by *skirt* (13.48%). The reasons for those ranking positions may be explained by bearing in mind that informants from

group A usually wear skirts since it is part of their school uniform, whereas group B are probably used to wearing trousers, although they may also wear skirts in their every-day life.

The syntagmatic associations provided to the derogatory cue *stupid* should also be noted. The fourth most common association provided by Group A is *stupid girl* (5.26%), whereas on the other hand Group B provides exactly its antonym in the same position, that is, *stupid boy* (5%). We believe that those associations are strongly linked to the social environment that surrounds both sub-groups of informants, since Group A represents females studying in a single-sex school, whereas Group B subsumes females enrolled in co-educational schools. Thus, females from Group A may fall out with other girls, whereas those from Group B may argue with boys in their daily routine, and they may use that pejorative adjective to express their feelings.

- (3) Associations clumped in groups where they share similar endings. They seem to be recalled following what Aitchinson (2003) calls 'the bathtub effect'. Thus the prompt *board* elicits responses such as *skateboard* (11.67%), *bodyboard* (10.81%), *blackboard* (10%), *cupboard* (5%) and *snowboard* (4.05%); the stimulus *pot* evokes associations such as *flowerpot* (10.00%) and *teapot* (10.00%).
- (4) Word associations are based on attitudes or strong memories (see Sökmen, 1993), such as *dirty dancing* (4.17%), on the basis of the famous film; or the response *lion* (7.14%) to the prompt *seat*, because of the Spanish trademark of cars (*Seat León*), that is, at the time of eliciting the responses, they did not think of the English meaning but they rather thought of the Spanish trademark, probably influenced by advertisements.
- (5) Some associations have been made through a cognate or a false cognate in the L1. Thus, the cue *habit* has been assimilated by both groups of informants to the Spanish verb *habitar* ('to live') and they have recalled words such as *house* (group A: 8.96%; group B: 12.82%), *city* (group A: 4.48%), *flat* (group A: 4.48%), *people* (group B: 5.13%), *inhabitant* (group B: 2.56%), and so on which are semantically linked to 'living', but not associated with the English word *habit* at all. Another example can be seen with the prompt *real*, which in Spanish is translated into 'royal'. Thus, informants produced associations such as *king*, *queen*, *princess* and *prince*, with the tacit positing of semantic links to the Spanish word (see Appendix 1 for the different proportion of associations). The cue *rest* was also mistaken for another Spanish word *resta* which means *subtraction*; not surprisingly, informants elicited words such as *numbers* (6.45%), *divisions* (3.23%), *maths* (25.00%), *class* (12.50%) and *school* (12.50%). What those responses seem to put forward is that some meaning hierarchies, lexicalised in

our sample of informants' L1 have not been internalised in their L2 yet, triggering L2 associations based on L1 knowledge. This is what Singleton (1999: 165) calls 'interlingual semantic assimilation triggered by formal similarity'.

- (6) Some cues have been mistaken for another English word. Thus, the cue *obey* has been mistaken for *obese*, and informants have provided word associations such as *fat* (group A: 13.79%; group B: 18.18%), *ugly* (group A: 3.45%), *tall* (group B: 18.18%), *short* (group B: 9.09%) and *small* (group B: 9.09%); that is, adjectives semantically linked to *obese* in the sense that they can be used to describe people's physical appearance.
- (7) Clang associations are not very common, although they are still present. For example, we can see the following pairs of cues and associations that share phonological similarities: for example, *hold* – *cold* (4.17%), and *kick* – *cook* (4.00%).
- (8) The lexical sophistication put forward by group A can be seen in some responses, for instance the ones elicited by the prompt *disease*, by providing responses such as *cold* (8.33%), *cough* (8.33%), *chickenpox* (8.33%) and *sneeze* (8.33%). It should be noted that the two latter are not included within Nation's (1984) 2000 most frequent content word list in English.

Furthermore, going beyond the top four most frequent responses, we can observe the influence of CLIL instruction in associations provided to prompts such as *substance* and *science*. Thus, informants from group A, when facing the cue *substance*, prompted L2 associations learnt by dint of exposure to English in their science lessons, such as *gaseous* (3.66%), *oxygen* (2.44%) *hydrogen* (1.22%) and *waste* (1.22%), among others. The same happened with the prompt *science*, in which informants from Group A provided responses such as *ecosystem* (3.95%), *plants* (3.95%), *biome* (3.29%), *living creatures* (1.32%), *skeleton* (1.32%), *muscles* (1.32%), *human beings* (0.66%), *vertebrates* (0.66%), *invertebrates* (0.66%) and so on. None of the aforementioned responses were found within the associations provided by informants from group B, which unveils the fact that the type of instruction may have a positive bearing on vocabulary knowledge, as Jiménez Catalán and Ruiz de Zarobe (in this volume) have put forward. Furthermore, these word associations also seem to illustrate the lexical sophistication elicited by informants from group A, as none of the aforementioned associations but four (i.e. *waste*, *plants*, *living creatures* and *human beings*) are found within Nation's (1984) 2000 most frequent content word list in English.

Conclusion

The results of our investigation provide support for the view that the organisation of the lexicon of L2 young learners is predominantly meaning-based, since our results show an overwhelming majority of

responses based on meaning relations (syntagmatic and paradigmatic), and a minimal proportion are in the clang category. Our sample of L2 young learners seem to evince a preference for syntagmatic over paradigmatic responses. These results seem to be in line with previous studies (Sökmen, 1993) that refer to the syntagmatic–paradigmatic shift between less proficient and more proficient stages of L2 development in the mental lexicon. Therefore, our informants seem to be in their early stages of their L2 lexical development previous to that shift.

It is noteworthy that despite the existing differences between both groups of informants, their L2 lexicon does not seem to be so different, as results from our *t*-test indicated that our groups of informants were not significantly different on the basis of associations, showing no clear correlation between association test results and proficiency measures; these results seem to be in line with Kruse *et al.*'s (1987) and Wolter's (2002) findings. Furthermore, some stimuli (e.g. *habit*) seem to evoke similar types of responses, showing some similar kind of cross-linguistic semantic-associative processing and form-oriented processing. Therefore, it seems that regardless of their teaching approach and hours of formal instruction, they seem to be at similar stages of their lexical incorporation into their mental storage.

Thus, although the kind of instruction seems to have a bearing on the type of responses elicited (e.g. patterns have emerged showing the lexical sophistication put forward by group A, and L2 associations learnt by dint of exposure to English in group A's science lessons), the differences between both groups of informants are less clear-cut than might have been expected, taking into account the method of instruction and the difference of formal exposure.

The results reported in this chapter seem to indicate that the difference between both groups of informants lies not only in language proficiency as reported by the vocabulary size test, but also on lexical richness. These results are in line with Jiménez Catalán *et al.* (2006) and Agustín Llach and Jiménez Catalán (2007). However, we would like to highlight that the method of instruction seems to have had a major effect with regard to lexical depth, rather than vocabulary breadth, as there is a slight difference between the vocabulary size of both samples of informants.

Thus, we do agree with Agustín Llach and Jiménez Catalán, when they say that even though CLIL programmes have started to be implemented in the Spanish schools influenced by the good results of immersion programmes in Canada (in the belief that it would lead to more proficient learners), the scarcity of research carried out in the Spanish educational context leaves still inconclusive results with regard to the effectiveness of CLIL in the development of learners' target

language competence, although they seem to evince a slight trend in favour of CLIL.

With regard to the different distribution of association categories between both groups, we believe that they may be due to the gradual network building between words, which 'may continue throughout a person's life' (Aitchinson, 2003: 199). Thus, our sample of informants may be at different stages in their lexical knowledge, which may have a bearing on how words are integrated into their network, and how links are built between them. Furthermore, we should also take into account that the links between words are multifarious (Aitchinson, 2003).

Notwithstanding the fact that word association tests seem to be unable to distinguish between different levels of language proficiency and that L1 cultural knowledge seems to have a bearing on L2 vocabulary development, we do agree with Singleton (1999) when he notes that there can be satisfactory language tests to shed some light into the relationship between L1 and L2 lexical knowledge in order to withdraw different pedagogical implications. Thus, word association tests seem to disclose some aspects of CLIL that other tests may not reveal, as it has been put forward by the associations elicited by cues such as *substance*, *science* and *disease*, among others, complementing and corroborating Jiménez Catalán and Ruiz de Zarobe's (in this volume) findings, which have emerged from different analyses using the same informants. Hence, empirical evidence seems to demonstrate that the type of language instruction is positively related to vocabulary knowledge.

We believe that further research should be carried out, since the differences revealed here between association categories deserve further consideration. Thus, their associations should be analysed at later stages of lexical development in order to see at what stage the syntagmatic-paradigmatic shift is produced, as our sample of informants form part of a three-year longitudinal research project. Furthermore, there is a need of further research on the basis of the influence of CLIL on the acquisition of communicative competence so as to see whether the existing differences between informants are widened or not.

Acknowledgements

The research reported here has been funded by the Spanish Ministry of Science and Technology and FEDER (BFF2003-04009-C02-02, HUM2006-09775-C02-02). This grant is hereby gratefully acknowledged.

Appendix 1

<i>Prompt</i>	<i>Top four most frequent word association responses</i>	
	<i>Group A (CLIL)</i>	<i>Group B (non-CLIL)</i>
1. Attack	Gun (10.17%), kill (6.78%), lion (6.78%), hit (3.39%)	Kill (7.32 %), war (4.88%), dog (3.66 %), UFOS (3.66%)
2. Board	Bodyboard (10.81%), surfing (9.46%), water (8.11%), snowboard (4.05%)	Skateboard (11.67%), blackboard (10.00 %), sea (6.67%), cupboard (5.00 %)
3. Close	Door (24.71%), open (15.29%), window (10.59%), shop (4.71%)	Open (30.15%), door (25.74%), window (19.12%), book (1.47%)
4. Cloth	Skirt (20.00%), trousers (14.19%), t-shirt (12.26%), shirt (9.68%)	T-shirt (19.86%), trousers (17.73%), skirt (13.48%), jumper (8.51%)
5. Dig	Ring (10.00%), telephone (10.00%), dug (10.00%), earth (10.00%)	Small (18.18%), dog (9.09%), hole (9.09%), mole (9.09%)
6. Dirty	Water (8.70%), new (7.25%), old (5.80%), clean (2.90%)	Clean (16.67%), clothes (4.17%), dancing (4.17%), window (4.17%)
7. Disease	Chickenpox (8.33%), cold (8.33%), cough (8.33%), sneeze (8.33%)	Said (11.11%), hate (11.11%), difficult (11.11%), easy (11.11%)
8. Experience	Exciting (4.69%), mountain (4.69%), climb (3.13%), swim (3.13%)	Interesting (5.17%), travel (3.45%), football (3.45%), good (3.45%)
9. Fruit	Apple (8.73%), banana (6.85%), orange (5.14%), pear (4.28%)	Apple (27.51%), orange (23.81%), banana (15.34%), pear (9.52%)
10. Furniture	Chair (28.57%), table (21.43%), desk (14.29%), armchair (7.14%)	Table (17.78%), chair (15.56%), sofa (8.89%), bed (6.67%)
11. Habit	House (8.96%), city (4.48%), flat (4.48%), walk (2.99%)	House (12.82%), dog (5.13%), people (5.13%), inhabitant (2.56%)
12. Hold	Take (7.32%), baby (4.88%), bag (4.88%), hand (4.88%)	Flag (8.33%), torch (8.33%), house (8.33%), cold (4.17%)
13. Hope	Dream (12.50%), think (12.50%), wish (12.50%), present (12.50%)	Jump (41.67%), rope (8.33%), desire (8.33%), dream (8.33%)
14. Kick	Run (18.18%), fast (18.18%), attack (9.09%), hurt (9.09%)	Attack (8.00%), leg (8.00%), cook (4.00%), kitchen (4.00%)
15. Map	Spain (16.67%), England (9.17%), city (5.00%), country (3.33%)	Spain (12.60%), country (7.87%), England (7.87%), city (7.09%)

(Continued)

Appendix 1 (Continued)

16. Obey	Fat (13.79%), football (6.90%), gymnastics (6.90%), ugly (3.45%)	Fat (18.18%), tall (18.18%), short (9.09%), small (9.09%)
17. Pot	Soup (13.04%), dishes (4.35%), spoon (4.35%), food (4.35%)	Kitchen (15.00%), flowerpot (10.00%), teapot (10.00%), plate (5.00%)
18. Potato	Chips (15.60%), crisps (12.84%), tomato (10.09%), carrot (6.42%)	Tomato (26.83%), vegetables (7.32%), carrot (4.88%), lettuce (4.07%)
19. Real	King (5.95%), queen (4.76%), princess (2.38%), true (2.38%)	Queen (11.11%), king (8.33%), princess (8.33%), prince (5.56%)
20. Rest	Pieces (9.68%), food (9.68%), numbers (6.45%), divisions (3.23%)	Maths (25.00%), class (12.50%), school (12.50%), stop (12.50%)
21. Rice	Spaghetti (15.15%), tomato (9.09%), fish (5.05%), food (5.05%)	Spaghetti (10.20%), food (7.14%), eat (7.14%), salad (4.08%)
22. Science	Animals (9.21%), maths (5.26%), human body (5.26%), environment (4.61%)	Maths (19.33%), music (7.56%), art (6.72%), physical education (5.88%)
23. Seat	Chair (17.50%), car (5.00%), place (5.00%), paper (5.00%)	Car (21.43%), chair (14.29%), lion (7.14%), stand (7.14%)
24. Spell	English (14.58%), Spanish (10.42%), words (6.25%), letters (4.17%)	Letter (8.51%), word (8.51%), English (6.38%), speak (5.32%)
25. Substance	Liquid (13.41%), water (12.20%), solid (4.88%), air (3.66%)	Water (23.33%), orange juice (6.67%), science (6.67%), toxic (6.67%)
26. Stupid	Silly (19.30%), intelligent (7.02%), bad (5.26%), girl (5.26%)	Silly (20.00%), intelligent (12.50%), people (8.75%), boy (5.00%)
27. Television	Radio (6.15%), programme (5.38%), newspaper (3.85%), cartoon (3.08%)	Programme (7.69%), cartoon (6.99%), computer (6.99%), film (6.99%)
28. Tooth	Mouth (9.89%), toothbrush (9.89%), teeth (7.69%), toothpaste (7.69%)	Teeth (23.33%), mouth (18.33%), head (5.00%), nose (5.00%)
29. Trade	Car (14.29%), make (14.29%), maths (14.29%), road (14.29%)	Trades (33.33%), early (33.33%), morning (33.33%)
30. Window	Door (10.81%), small (7.21%), big (6.31%), table (5.41%)	Open (28.80%), close (12.00%), table (11.20%), chair (8.00%)

References

- Agustín Llach, P. and Jiménez Catalán, R.M. (2007) Lexical reiteration in EFL young learners' essays: Does it relate to the type of instruction? *International Journal of English Studies (IJES)* 7 (2), 85–103.
- Aitchinson, J. (2003) *Words in the Mind: An Introduction to the Mental Lexicon*. Oxford: Blackwell Publishing Ltd.
- Arnaud, P.J.L. (1984) The lexical richness of L2 written productions and the validity of vocabulary tests. *University of Essex Occasional Papers* 29, 14–28.
- Dax, T. (2006) *Second Language Word Associations: How Japanese Make Mental Links between English Words They Have Learned*. On WWW at http://www.thementallexicon.com/Second_Language_Word_Associations_-_Dax_Thomas_2006.pdf.
- Fitzpatrick, T. (2000) Using word association techniques to measure productive vocabulary in a second language. *Language Testing Update* 32, 68–71.
- Fitzpatrick, T. (2006) Habbits and rabbits: Word associations and the L2 lexicon. In S.H. Foster-Cohen, M. Medved Krajnovic and J. Mihaljević Djigunović (eds) *EUROSLA Yearbook: Volume 6* (pp. 121–145). Amsterdam: John Benjamins Publishing Company.
- Greidanus, T. and Nienhuis, L. (2001) Testing the quality of word knowledge in a second language by means of word associations: Types of distractors and types of associations. *The Modern Language Journal* 85, 567–577.
- Jiménez Catalán, R.M. and Moreno Espinosa, S. (2005) Using Lex30 to measure the L2 productive vocabulary of Spanish primary learners of EFL. *Vigo International Journal of Applied Linguistics (VIAL)* 2, 27–44.
- Jiménez Catalán, R.M. and Moreno Espinosa, S. (2007) Lex30: Vocabulary development of primary school learners in a three-year longitudinal study. Paper presented at ELIA X Conference, University of Seville.
- Jiménez Catalán, R.M. and Moreno Espinosa, S. (2004) L2 word associations and the variable sex: An outline according to an electronic tool. In A.R. Celada, D. Pastor García and P.J. Pardo García (eds) *Proceedings of the 27th International AEDEAN Conference*. Salamanca: Editorial Ambos Mundos (CD-ROM format).
- Jiménez Catalán, R.M., Ruiz de Zarobe, Y. and Cenoz Iragui, J. (2006) Vocabulary profiles of English foreign language learners in English as a subject and as a vehicular language. *Vienna English Working Papers (VIEWS)* 15 (3), 23–27.
- Jiménez Catalán, R.M. and Ojeda Alba, J. (in press) The English vocabulary of girls and boys: Similarities or differences? Evidence from a corpus based study. In L. Litosseliti, H. Sauton, K. Harrington and J. Sunderland (eds) *Theoretical and Methodological Approaches to Gender and Language Study*. London: Palgrave Macmillan.
- Källkvist, M. (1999) *Form-Class and Task-Type Effects in Learner English: A Study of Advanced Swedish Learners*. Lund: Lund University Press.
- Kruse, H., Pankhurst, J. and Sharwood Smith, M. (1987) A multiple word association probe in second language acquisition research. *Studies in Second Language Acquisition* 9, 141–154.
- Lambert, W.E. (1956) Developmental aspects of second language acquisition: I. Associational fluency, stimulus provocativeness and word order influence. In W.E. Lambert (ed.) *Language, Psychology and Culture* (pp. 9–32). Stanford: Stanford University Press.
- Maréchal, C. (1995) The bilingual lexicon: Study of French and English word association responses of advanced learners of French. M. Phil. dissertation, University of Dublin.
- Marsh, D. (1994) *Bilingual Education and Content and Language Integrated Learning*. International Association for Cross-cultural Communication, Language

- Teaching in the Member States of the European Union (Lingua). Paris: University of Sorbonne Press.
- Meara, P. (1983) Word association in a foreign language: A report on the Birkbeck vocabulary project. *Nottingham Linguistic Circular* 11 (2), 29–38.
- Meara, P. and Fitzpatrick, T. (2000) Lex30: An improved method of assessing productive vocabulary in an L2. *System* 28, 19–30.
- Namei, S. (2004) Bilingual lexical development: A Persian–Swedish word association study. *International Journal of Applied Linguistics* 14 (3), 363–388.
- Nation, I.S.P. (1984) *Vocabulary Lists*. Wellington: Victoria University of Wellington, English Language Institute.
- Ojeda Alba, J. and Jiménez Catalán, R. (2007) The worlds children's words build. *Didáctica (Lengua y Literatura)* 19, 155–172.
- Randall, M. (1980) Word association behaviour in learners of English as a foreign language. *Polyglot* 2, fiche 2.
- Read, J. (1993) The development of a new measure of L2 vocabulary knowledge. *Language Testing* 10, 355–371.
- Riegel, K.F., Ramsey, R.M. and Riege, R.M. (1967) A comparison of the first and second languages of American and Spanish students. *Journal of Verbal Learning and Verbal Behaviour* 3, 536–544.
- Schmitt, N. (1998) Quantifying word association responses: What is native-like? *System* 26, 389–401.
- Singleton, D. (1999) *Exploring the Second Language Mental Lexicon*. Cambridge: Cambridge University Press.
- Söderman, T. (1993) Word associations of foreign language learners and native speakers – different response types and their relevance to lexical development. In B. Hammarberg (ed.) *Problems, Process and Product in Language Learning* (pp. 157–169). Abo: AfinLA.
- Sökmen, A.J. (1993) Word association results: A window to the lexicons of ESL students. *JALT Journal* 15 (2), 135–150.
- Wilks, C. and Meara, P. (2002) Untangling word webs: Graph theory and the notion of density in second language word association networks. *Second Language Research* 18, 303–324.
- Wilks, C., Meara, P. and Wolter, B. (2005) A further note on simulating word association behaviour in a second language. *Second Language Research* 21 (4), 359–372.
- Wolter, B. (2002) Assessing proficiency through word associations: Is there still hope? *System* 30 (3), 315–329.

Chapter 7

The Role of Spanish L1 in the Vocabulary Use of CLIL and non-CLIL EFL Learners

MARÍA DEL PILAR AGUSTÍN LLACH

Introduction

It is common in Spain to find school and university graduates who are unable to use English for communicative purposes despite having been studying the language for years. From this observation that unsuccessful English as a Foreign Language (EFL) learning experiences abound in the language learning context, researchers have proposed a new approach to learning foreign/second languages. This new approach, which has come to be called Content and Language Integrated Learning, CLIL for short, involves teaching different curricula subjects such as history, geography and/or others in the additional language, that is, in the foreign language (Marsh, compendium online).

CLIL intends to simulate the natural context of language acquisition by using the foreign language naturally for communication. In other words, the foreign language becomes the medium of instruction and of communication. The focus is then on the learning topic and not on the language of transmission itself, such as in the case in foreign language classroom contexts (Marsh, compendium online). This teaching methodology aims at the development of foreign language proficiency as well as knowledge of subject matter.

In CLIL, the exposure to the foreign language, opportunities to use the foreign language in real-life situations and, in turn, opportunities for acquisition are all enhanced. Nevertheless, Marsh (2000: 11) acknowledges the influence of the mother tongue in potential transfer or interference episodes in the classroom.

L1 Transfer in L2 Acquisition

The influence of previous linguistic knowledge in the acquisition of a foreign language has been a much researched topic (see, e.g. Arabski,

2006a; Celaya, 1992; Cenoz *et al.*, 2001; Jarvis, 2000; Odlin, 1989, 2003). The issue of the role of mother tongue (or L_n/ any other language previously known) in foreign language acquisition has generated much controversy regarding the definition and naming of the phenomenon, and the nature and extent of its influence (see Celaya, 1992: 41–112; Jarvis, 2000: 249; Odlin, 1989: 25–47). However, nowadays it is generally acknowledged that the first language does play a role, whatever it may be, in the process of foreign language acquisition.¹

Although theoretically it may be possible to distinguish among native language positive and negative influence, in practice it is very difficult to identify positive transfer. Therefore, in the present research we will focus on the influence of the mother tongue as revealed by lexical errors in writing. Several other studies have examined the role of the first language in the process of foreign language acquisition from the evidence of the forms resulting from transfer, that is, its products.

Be it voluntary or unconscious, transfer from the mother tongue has been observed to follow some patterns of behaviour relative to language typology, student age and proficiency in the L2. Not all linguistic areas seem equally permeable to transfer. Learners' perceptions of what may be transferable or not on the basis of the distance between languages may play a relevant role. In other words, learners will tend to transfer only those structures, or lexical items, that they deem transferable because of similarity with structures in the target language (Kellerman, 1977). This has come to be known as the *psychotypological perspective* (Cenoz, 2001; Kellerman, 1977; Singleton & O'Laoire, 2004; Williams & Hammarberg, 1998), and has been especially evident in research about third language acquisition (Cenoz, 2001; Dewaele, 1998, 2001; Ringbom, 2001; Singleton & O'Laoire, 2004; Tremblay, 2006; Williams & Hammarberg, 1998). These studies have shown that learners who are learning a third language do not necessarily transfer more from their L1, but from the language (perceived as) typologically closer to the target language, be it L1 or L2.

Although conclusive results are not at hand yet, a considerable amount of research has found that older learners transfer more than younger students. In this sense, Gost and Celaya (2005) examined the oral production of young Spanish–Catalan bilinguals who had started learning English at different ages. They found that late starters, i.e. older learners, committed more instances of transfer from the L1, be it Catalan or Spanish, and also fell back on the L1 for different purposes. In the same line, the studies by Celaya and Torras (2001), and Cenoz (2001, 2003), reached similar conclusions. The former study also found that learners showed different types of transfer at different ages. On the contrary, Lasagabaster and Doiz (2003) reported that younger, and not older learners, are the ones who transfer most. García Lecumberri and Gallardo (2003) stated, nevertheless, that native language influence was pervasive in all age groups and the main strategy for all learners independent of age.

An issue related to age and to age of onset is proficiency in the target language. Myriad studies have put forward that L1 influence decreases as experience with the language and proficiency increases. Taylor (1975) noticed that the performance of beginner learners showed more instances of transfer than that of more advanced learners. These findings are in consonance with results of succeeding research such as Fernández (1997), Herwig (2001), LoCoco (1975), Navés *et al.* (2005), Olsen (1999), Ringbom (1987), and Williams and Hammarberg (1998).²

Exposure to the language and proficiency are closely related, and although increase in the former does not necessarily involve an increase in the latter, this is most commonly the case. Learners who are exposed to large amounts of language will be expected to develop higher levels of proficiency in the foreign language, and in turn, to be less influenced by their mother tongue. In this sense, it can be expected that learners involved in a CLIL approach will show fewer instances of L1 transfer than other learners receiving traditional instruction in the foreign language, even with communicative approaches. Nevertheless, studies comparing both approaches, i.e. CLIL teaching and regular foreign language classroom contexts, with respect to L1 influence are scarce (see, however, Celaya, 2007).

Apart from individual differences and variation, language transfer is not equal to all areas of language so that some are more prone to be transferred than others. Pronunciation and lexis are especially sensible to cross-linguistic influence (Arabski, 2006b).

Lexical Transfer

The issue of transfer in the field of lexis has occupied researchers for quite a long time. Odlin (1989: 7) mentions the discussions about loanwords by linguists as far as in the 19th century. Lexical borrowing or loanwords are just one example illustrating the phenomenon of lexical transfer. Other products of mother tongue influence in the L2 are coinages or adaptations of L1 words to the phonographemic rules of the L2, and calques or literal translations of L1 words or expressions into L2 structures.³

These types of lexical transfer conform the dichotomy between transfer of form and transfer of meaning (De Angelis & Selinker, 2001; Ringbom, 2001). Transfer of form consists of the use of L1 words, either adapted to target language norms or not, when producing in the target language. These are occurrences of codeswitching (Ringbom, 2001: 60). Other transfer-based errors are derived from the transfer of semantic patterns of the L1 into target language words, in the form of calques and semantic extensions (Ringbom, 2001: 60).

Researchers who have investigated transfer in the field of foreign vocabulary acquisition have controlled for variables such as age (Celaya &

Torras, 2001; Cenoz, 2001; Gost & Celaya, 2005), grade (Navés *et al.*, 2005), proficiency (Tremblay, 2006; Williams & Hammarberg, 1998) or knowledge of at least one additional language (Dewaele, 1998, 2001; Ringbom, 2001). The findings of these studies have put forward that learners at different ages, in different grades and with different levels of proficiency transfer to differing extent, for different purposes, in different ways and from different languages.

Decisions on whether to transfer or not in the area of lexis are very much informed by the perceived distance among the languages at stake, i.e. the target language, the native language and any other L2 (Ringbom, 2001: 60).⁴ In this sense, there is competing evidence regarding the language source of the transfer. Most research has proved that the language typologically closer to the target language will be the source of the influence (Dewaele, 1998, 2001; Ringbom, 2001). However, especially at the earliest stages of target language acquisition, transfer from the other L2 is still very common (Cenoz, 2001; Lasagabaster & Doiz, 2003; Williams & Hammarberg, 1998).

Lexical transfer is not a homogeneous phenomenon, but a multifaceted one responding to varied stimuli and purposes. Young learners seem to draw on their L1 to spell foreign words, since, as Celaya and Torras (2001) explain, the burden of learning both the meaning and the form of the target words is too heavy for them to learn words completely; therefore, target words are acquired only partially. Borrowing from the native language while producing in the target language is most common in younger learners and learners at early stages of target language acquisition (Celaya & Torras, 2001; Gost & Celaya, 2005; Gabryś-Barker, 2006). The need to communicate collides with lack of lexical knowledge in the L2; to overcome this problem, learners decide to resort to their L1 including L1 words in the L2 discourse (Ecke, 2001). This is considered one of the most prominent compensatory communication strategies (Celaya, 1992; Ecke, 2001; James, 1998).

Navés *et al.* (2005) report that as learners progress in school grade their use of borrowings and lexical inventions decreases; nevertheless, the difference is significant only for borrowings. Celaya (2007) also deals with this issue. In this study, lexical transfer produced by two groups of CLIL learners in the 5th and 7th grade is compared with their non-CLIL peers. Celaya found that non-CLIL learners use borrowings more frequently than CLIL learners but observed similar percentages for lexical inventions. Furthermore, borrowings were observed to decrease from 5th to 7th grade, whereas lexical inventions increased slightly with grade.

Although there are many different types of lexical inventions (see Dewaele, 1998), the most frequent among those that draw from L1 are coinages or adaptations of L1 words to the orthographic or phonetic conventions of the target language, and calques or literal translations. This

has very much to do with more proficient learners recurring to transfer of meaning, rather than of form (Gabryś-Barker, 2006; Ringbom, 2001).

As briefly mentioned above, the use of L1 lexical items while producing in the target language can be traced back to different sources. Sometimes lack of vocabulary in the L2 causes the learner to use L1 words, instead. In these cases, the learner falls on the native language without any previous notice, be it either consciously or unconsciously (Celaya & Torras, 2001; Dewaele, 1998; Navés *et al.*, 2005; Tremblay, 2006; Viladot & Celaya, 2006). Some other times, learners use their mother tongue to ask for information about lexical items in the target language. In such cases researchers talk of the pragmatic function of the L1 (Gost & Celaya, 2005; Viladot & Celaya, 2006; Williams & Hammarberg, 1998).

Studies of lexical transfer and cross lexical influence have also served to investigate the organization of the foreign mental lexicon (Ecke, 2001; Herwig, 2001). According to the features of lexical items affected by lexical errors due to transfer, i.e. lexical meaning, lexical form, syntactic class, researchers make hypotheses regarding how foreign words are stored in the mind of the learner, and how L1 and L2 are related in the lexicon or lexicons of the learner (Singleton, 2006).

The purpose of the present study is to examine in detail to what extent the role of proficiency in the target language determines transfer in quantitative and qualitative terms. In other words, identification of transfer episodes in learners with different proficiency, amount of exposure and instructional approach will allow for conclusions regarding the issue of who transfers more: CLIL or non-CLIL learners. Furthermore, by examining the nature of the instances of influence from Spanish L1, some preliminary inferences may be made concerning the main types of transfer for the different learners. This can reveal very important information regarding the organization of the lexicon of young CLIL and non-CLIL learners of EFL. To fulfil this purpose, the following research questions were identified:

- (1) Who transfers more: CLIL or non-CLIL learners?
- (2) What type of transfer from Spanish L1 is more common for CLIL learners?, and for non-CLIL learners?

Method

Participants

The role of the native language in the written production of 60 EFL learners was analysed. Two groups of subjects could be distinguished:

- (1) *CLIL group*: 30 learners conform this group. They were taught with a CLIL and language integrated learning approach. Apart from the

weekly five hours of English class, learners in this group also received instruction of Science and Arts and Craft (school subjects) in English. By the time of data collection, subjects had been exposed to English for 960 hours. English was the third language (L3) of these subjects who are bilingual in Spanish and Basque. Three intact classes were selected to participate in the present study.

- (2) *Non-CLIL group*: The other 30 participants received regular teaching with three hours weekly of English class. When data were collected, learners in this group had received a total of 629 hours of instruction in English. English is the first second/foreign language of subjects in this group (L2), since they belong to a Spanish monolingual community. Participants in this group were randomly selected to be included in the present research to fit the characteristics of the sample of the CLIL group.

Members of both groups started learning English when they were three years old and had been exposed to the language for over eight years in differing amounts, as explained above. Participants from the different groups displayed different levels of proficiency in the target language as revealed by the results of a cloze and a reading comprehension test, with CLIL learners performing better in both tests of language proficiency. Table 7.1 presents the scores for both tests in percentage of right answers.

All subjects were female and attended 6th grade of primary education in urban middle class schools in the north of Spain (Basque Country and La Rioja). Subjects were between 11 and 12 years old.

Instruments

Participants were required to write a composition in English. Learners had to write a letter to a prospective English host family, where they introduced themselves and talked about their family, friends, school, hobbies and any other thing they considered interesting about them. Subjects had no limitations apart from the time and the language they had to write the letter in, namely English. Instructions were written in Spanish so as to avoid any comprehension problems. Data were collected in Logroño, La Rioja and the Basque Country in spring 2006.

Table 7.1 Percentage of right answer for proficiency tests, $n = 30$ for both groups

	<i>Cloze test</i>	<i>Reading comprehension test</i>
CLIL learners	76.12	54.42
Non-CLIL learners	47	36.85

Procedures and analyses

Compositions were written in classroom during a regular English session. Learners were not allowed to use any books, notes or dictionaries, or to ask for any help. Once data were collected, compositions were converted into computer-readable files and scrutinized for lexical errors deriving from Spanish L1 influence. Compositions were shortened to the first 100 tokens and only these were considered for the analysis. Lexical errors were identified and classified. Instances of Spanish L1 influence and use were considered as occurrences of transfer from Spanish L1,⁵ and according to this, three main types of L1 transfer lexical error categories were distinguished (cf. Gabryś-Barker, 2006: 158):

- (1) Borrowings, also called ‘complete language shift’, appear when the learner inserts any L1 word into the L2 syntax, ‘without any attempt to tailor them to the target language’ (Celaya & Torras, 2001: 7), and this includes phonological or morphological adaptations, e.g:
 - (a) My grandmother is *coja* (Eng. lame)
 - (b) My father is big and *lento* (Eng. slow)

We disregarded any clauses written completely in the L1.
- (2) Coinage or ‘relexification’ (see, e.g. Ringbom, 1983) consists of the adaptation of an L1 word to the L2 orthography or morphology, ‘so that it sounds or looks English’ (Celaya & Torras, 2001: 7).
 - (c) My rabbit is small, very *divert* (Sp. *divertido*, Eng. funny).
 - (d) In mai house is famili: fatter, matter, *tater* and mai (Sp. *tato*, Eng. familiar for ‘brother’).
- (3) Calque or ‘literal translation’ happens when a learner literally translates the word from the L1. This has to do with the transfer of semantic features from an L1 word to an L2 equivalent but with different contextual distribution (see e.g. Ringbom, 1987, 2001; Zimmermann, 1986a, 1986b, 1987):
 - (e) My *table study* is blue and big (literal translation from *mesa de estudio*, Eng. desk).
 - (f) My favourite *plate* is pasta and rice (literal translation from *plato*, Eng. dish).

Statistical analyses were performed in order to find out significant differences. The SPSS 14.0 was used to calculate descriptive and inferential statistics.

Results

The first research question posited above asked who transfers more: learners who are learning English within a CLIL approach, that is, CLIL learners, or within a traditional foreign language approach, that is, non-CLIL

Table 7.2 Results for L1-influenced lexical errors in compositions. Relative and absolute figures

	<i>N</i>	<i>Mean L1-influenced lexical errors</i>	<i>% subjects who commit L1-influenced lexical errors</i>	<i>Mean L1-influenced lexical errors per subjects who commit L1-influenced lexical errors</i>
CLIL learners	30	1.2	80	1.87
Non-CLIL learners	30	2.93	83.3	3.93

learners. The results of descriptive analyses are presented in Table 7.2. Non-CLIL learners commit more L1-oriented lexical errors as a mean measure. Non-CLIL learners transfer from their L1 more frequently than do their CLIL counterparts with 2.93 instances of Spanish influence in lexis every 100 words, and 1.2 occurrences of this influence, respectively. In relative terms, results confirm absolute figures. More than three-fourths of non-CLIL participants made at least one lexical error derived from the influence of Spanish, and also some three-fourths of the CLIL learners did the same. If the mean number of L1-influenced lexical errors is calculated only for those subjects who, in fact, commit L1-influenced lexical errors, then the figures obtained are again higher for non-CLIL learners; 3.52 occurrences of Spanish in their vocabulary versus the 1.5 instances for CLIL learners (cf. Navés *et al.*, 2005 for further examples of these three different ways of measuring lexical transfer errors). Figure 7.1 presents the results graphically.

To state the significance of the difference in L1-oriented lexical error production, a test of means comparisons was performed. A Mann–Whitney

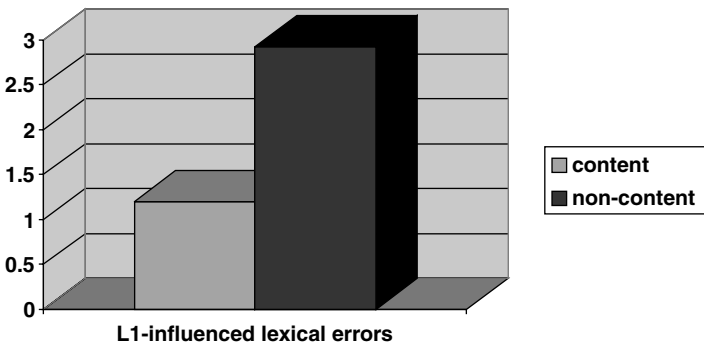


Figure 7.1 Mean production of L1-influenced lexical errors

test of non-parametric means comparison was carried out to examine the significance of the difference in lexical transfer error production, since the sample was not normally distributed. With a U value of 284.5 ($p < 0.01$) ($Z = -2.552$), the test showed that non-CLIL learners commit significantly more lexical errors derived from the influence of Spanish, the subjects L1, than their CLIL peers.

From the evidence presented in the results section, we can conclude that learners who learn English in a non-CLIL approach transfer more from Spanish L1, than those who receive a CLIL and language-integrated instruction. This answers research question number one.

Turning now to the second research question, analyses of the different types of lexical transfer errors will follow. Three main types of lexical errors derived from L1 influence were identified: borrowings, coinages and calques. Tables 7.3–7.5 present the results of the production of each of the types by CLIL and non-CLIL learners.

For all three types of lexical errors that originate in the influence of Spanish, non-CLIL learners produce more instances than their CLIL peers in all the measures considered. Regarding absolute measures, i.e. mean production of borrowings, coinages and calques, non-CLIL learners exceed CLIL participants. Many more non-CLIL participants commit borrowings, coinages and calques than do CLIL learners, of whom fewer resort to their L1 while writing the English essay. Consequently, mean numbers of borrowings, coinages and calques occurrences only for those subjects who, in fact, commit such lexical transfer errors are higher for non-CLIL than for CLIL learners.

These differences are significant for borrowings ($U = 303$, $p < 0.005$ and $Z = -2.747$), but not for coinages ($U = 349$, $p = 0.111$ and $Z = -1.593$) or calques ($U = 411$, $p = 0.483$ and $Z = -0.701$).

As shown in Tables 7.3–7.5 and Figures 7.2 and 7.3, calques are in both instruction approaches the most common manifestation of Spanish L1 influence. Coinages are the second most frequent category of lexical transfer errors in the CLIL group and the least common for non-CLIL learners. Finally, borrowings are the least frequent category for CLIL learners, but the second most frequent for non-CLIL subjects.

When CLIL learners fall back on their L1,⁶ they prefer to translate Spanish words and expressions literally to English, and to use these Spanish words in their English versions with the same semantic distribution of the original Spanish words. These semantic extensions account for more than half of the instances of L1 transfer in the written production of CLIL learners. Anglification of Spanish words, that is, adaptation of L1 words to the target language rules, is the second most frequent L1-based strategy of CLIL learners. IncurSION of Spanish words in the English discourse is very rare in the compositions of CLIL learners, with instances of borrowing representing slightly above one-tenth of all lexical transfer errors.

Table 7.3 Borrowings

	<i>N</i>	<i>Mean borrowings</i>	<i>% subjects who commit borrowings</i>	<i>Mean borrowings per subjects who commit borrowings</i>
CLIL learners	30	0.13	13.3	1
Non-CLIL learners	30	1	43.3	2.3

Table 7.4 Coinages

	<i>N</i>	<i>Mean coinages</i>	<i>% subjects who commit coinages</i>	<i>Mean coinages per subjects who commit coinages</i>
CLIL learners	30	0.3	30	1
Non-CLIL learners	30	0.53	36.6	1.45

Table 7.5 Calques

	<i>N</i>	<i>Mean calques</i>	<i>% subjects who commit calques</i>	<i>Mean calques per subjects who commit calques</i>
CLIL learners	30	0.77	56.6	1.35
Non-CLIL learners	30	1.40	66.6	2.1

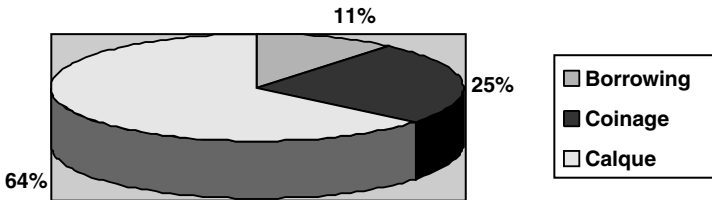


Figure 7.2 L1-influenced lexical error types in content learners

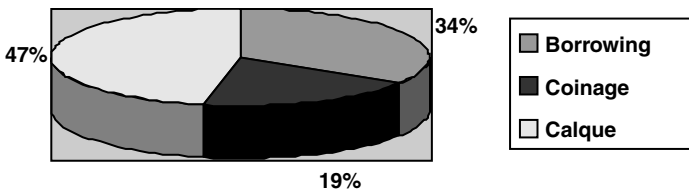


Figure 7.3 L1-influenced lexical error types in non-content learners

For non-CLIL learners the picture is very similar, but not exactly identical. One thing is particularly remarkable in this respect: all three categories of lexical transfer errors are distributed in approximately homogeneous proportions. This can be very well appreciated graphically in Figure 7.3. Calques and borrowings appear in practically identical percentages, although calques are slightly more frequent. Coinages are a bit less common than the other two, but again with very similar percentages. In this sense, it can be concluded that non-CLIL learners do not show special preference for any of the L1-based strategies to compensate for a lack of lexical knowledge in English.⁷

To sum up, non-CLIL learners produce significantly more lexical transfer errors for all three categories distinguished, that is, borrowings, coinages and calques, than their CLIL peers. Learners in the different teaching approaches also show a different distribution of the L1-influenced lexical errors identified. In other words, learners who receive exposure to the target language in different amounts and ways and who have consequently reached different degrees of proficiency in that target language show quantitative and qualitative differences regarding the influence of their mother tongue in their written discourse in the target language.

Discussion and Conclusion

The first research question focused on the comparison in quantitative terms of the influence of Spanish L1 in the written production of young CLIL and non-CLIL female learners. The results indicate that non-CLIL learners produce significantly more lexical transfer errors than their CLIL peers. Two main explanations can be proposed that account for this difference.

First, it seems reasonable to relate lower production of L1-influenced errors in vocabulary to higher levels of proficiency. CLIL learners have proved to display a higher command of English, the target language, as revealed by scores on a cloze test and a reading comprehension test (see the Method section). This explanation is in line with the findings of previous research, which pointed to a decrease of L1 influence as experience and proficiency in the L2 increase (see, for example, Herwig, 2001; Navés *et al.*, 2005; Williams & Hammarberg, 1998).

Episodes of lexical transfer from the mother tongue, either voluntary or unconscious, seem to be replaced by intralexical influence, i.e. target language words instead of native language lexis, in higher proficiency learners. The clear reason for this is that as the learner gets more proficient he/she has available a larger lexical repertoire and lexical deficiencies disappear gradually. Therefore, recourse to previous linguistic knowledge is not necessary anymore.

The second explanation alludes to the role of the target language as perceived by the learners themselves. The different instructional approaches the learners receive lead to differences in the way they understand the foreign language. For CLIL learners, the target language is used as a means of instruction, and of communication, but for non-CLIL learners, English is merely a school subject. One may dare speculate that non-CLIL learners do not really perceive the target language as a means of communication, and in turn, writing in the foreign language is nothing more than a classroom task. By the contrary, for CLIL subjects, English represents a tool to communicate and to transmit knowledge. Therefore, for CLIL students writing a composition in English implies a meaningful interaction with the teacher and/or research, and thus the text becomes an exercise of communication rather than a language task.

This interpretation concurs with Rokita (2006), who in an analysis of code-mixing episodes in very young early bilinguals and L2 learners noticed that although the former conceived English as a tool to communicate, for the latter it was something they had to learn to please their parents, and never really used English to interact.

It is very remarkable that, in general terms, L1 influence is not very frequent in the production of either group of participants. The type of task to be performed may account for this low transfer rate. Writing a composition is not an immediate task such as an oral interview, for example, and learners have enough time to plan their writing, to think about the CLIL and form of the composition, to retrieve L2 words, and to revise their production (cf. Gabryś-Barker, 2006: 144). During data collection sessions we could observe that the time allotted to complete the writing task was sufficient for learners to write at ease with no hurries, and that they had time to revise their writings, to which they were also encouraged.

Examination of the different types of lexical errors derived from L1 influence has put forward that for all three categories distinguished non-CLIL learners produced significantly more instances, thus showing quantitative differences for all types. Likewise, qualitative differences in the production of lexical transfer errors could also be observed.

The most notable difference between CLIL and non-CLIL learners regarding types of lexical transfer errors is borrowing production. For non-CLIL subjects borrowing directly from the L1 was very common, but CLIL learners rarely use it. This fact can be again related to proficiency differences. Previous research has demonstrated that borrowings are characteristic of learners at early stages of acquisition, and that they tend to decrease as learners show higher levels of language competence (Celaya & Torras, 2001; Rokita, 2006; Williams & Hammarberg, 1998). This finding goes in the same line as Celaya (2007), who also observed borrowings to be more common in the production of non-CLIL learners. Furthermore, as

learners passed grade (from 5th to 7th), Celaya gives account of a reduction in the number of borrowings produced.

Furthermore, this result also confirms the previous interpretation of our findings above. It is reasonable that CLIL learners, who conceive English as a means of communicating and their written compositions as a communication act, do not insert L1 words without any adaptations, because this would hinder communication. And this is especially true in the present data elicitation task: a letter addressed to an English host family whose knowledge of Spanish is unknown to the participants. One may contend that this is irrelevant, since this letter was, all in all, a classroom task. However, in light of the comments of learners written in their letter and of the questions asked to the research during data collection, we can safely think that for some of them it was, in fact, a real communication task.

On the contrary, calques and coinages are more frequent in relative terms in the written production of CLIL learners. This result again concurs with Celaya (2007). In her study, Celaya found CLIL learners to produce more lexical inventions than their non-CLIL counterparts. Moreover, lexical inventions increased their presence in the learners' production as they passed from 5th to 7th grade.

From this, we can argue that these two types of lexical transfer imply higher proficiency in the target language, since they derive from the application of target language phonographemic rules to L1 words in the case of coinages and of literal translation and semantic extension of L1 to L2 words in the case of calques.

Coinages have been observed to be more common in learners who are at more advanced stages of the process of target language acquisition than at early stages (Celaya & Torras, 2001; Navés *et al.*, 2005). The findings of the present research coincide with this.

As preceding studies have shown (Celaya & Torras, 2001; Dewaele, 1998, 2001; Gabryś-Barker, 2006; Ringbom, 2001), as proficiency increases meaning-related transfer becomes more common. Calques are more numerous than other types of L1-influenced lexical errors such as borrowings and coinages in more advanced learners. The data of this study confirm this, since CLIL learners, who were more proficient than their non-CLIL peers, showed more instances of calques than subjects in the non-CLIL group. Calques were, furthermore, the most frequent category of lexical transfer in their written production. The communicative approach used for the instruction of the CLIL learners may also serve as evidence for the meaning-related transfer, which is more common than form-related L1 influence (cf. Ecke, 2001).

These results might be seen as evidence to support the claim of previous studies (Herwig, 2001; James, 1998; Meara, 1984) that the lexicon of low-level learners is organized following formal, orthographic and phonetic principles, whereas more advanced learners tend to store words in

the lexicon according to semantic associations, as native speakers seem to do. As learners develop their lexical competence in the foreign language, they are believed to readapt the criteria they use to organize the foreign vocabulary in their lexicon approaching the way the native lexical store is structured. The L1-oriented lexical errors produced by the lower proficient non-CLIL learners by contrast with the more proficient CLIL peers show this. Routes of lexical access are, therefore, influenced by the level of proficiency.

It would be interesting to know how instances of lexical transfer progress in the written production of both groups of learners as their proficiency increases. Present and previous results suggest that L1 lexical transfer episodes will diminish as learners gain proficiency. However, we have no sound knowledge of how quantitative transfer differences between CLIL and non-CLIL learners will evolve in time. Further research of this issue is warranted.

Future studies should focus on investigating the differences between CLIL and non-CLIL learners in writing quality. In other words, will compositions written by CLIL learners, which display fewer instances of L1, obtain higher grades in assessment than those by non-CLIL learners. In a similar manner, examination of productive vocabulary use in composition, e.g. type/token ratio, lexical frequency profile of the text, lexical sophistication, and the receptive vocabulary knowledge of CLIL and non-CLIL learners, could provide very insightful information about the lexical development in both types of foreign language instruction.

This study has one important limitation. The comparison between both groups of learners is made difficult by the fact that CLIL learners apart from having received more hours of instruction and showing higher levels of proficiency in the foreign language are bilingual learners. Learners in the non-CLIL group are monolingual learners. We can reasonably assume that the previous different second language learning experiences may be a relevant factor that has some impact on results.

To conclude, this study has found that there exist quantitative and qualitative differences in L1 lexical transfer of CLIL and non-CLIL learners in their written compositions. However, one must remain circumspect considering and interpreting results, because the only evidence we have available are the products of the transfer, and not the process of transfer itself.

Acknowledgements

The author gratefully acknowledges the support of the *Ministerio de Educación y Ciencia* and FEDER (Grant HUM2006-09775-C02-02, research project *El desarrollo de la competencia léxica en la adquisición del inglés como lengua extranjera*). This research was conducted under the auspices of the research grant FPI 2004 from the *Comunidad Autónoma de La Rioja*.

I would also like to thank the anonymous reviewer whose constructive criticism has led to an improvement in the content and presentation of this article. Many thanks are also due to the native speaker who has revised the article for language inconsistencies. Any remaining errors are all my own.

Notes

1. In this respect, even those studies that found only slight influence of particular L1s, for example because they found the same types of errors in performances of learners with different mother tongues, acknowledge that to some extent the native language of learners is present during their foreign language acquisition process, as revealed by some errors (Alonso & Palacios, 1994; Dušková, 1969).
2. See Jarvis (2000) for a thorough account of the direction of the evolution of L1 transfer with respect to target language proficiency.
3. While these are examples of negative transfer, lexical transfer can also have positive, facilitating effects in language learning, with cognates, i.e. words that look and mean similar in two languages, as the main exponent of this positive lexical transfer (cf. Odlin, 1989: 77–79). Consider also in this respect the pitfalls caused by *false friends* or words that look very similarly in two languages, but mean different things.
4. See Ringbom (2006) for a thorough account of the role of different types of similarity in language transfer.
5. Although learners in the *CLIL group* were bilinguals in Spanish and Basque, here we will only consider instances of transfer from Spanish, which is the native language that all participants in the study share. Furthermore, there is evidence to believe (Cenoz, 2001; Lasagabaster & Doiz, 2003; Singleton & O’Laoire, 2004) that learners would transfer more lexical items from Spanish than from Basque, considering the closer distance in lexical terms between Spanish and English than between English and Basque, the latter being a non-Indo-European language.
6. We have not found in our data any instances of Basque influence in the written compositions. The closer distance between Spanish and English than between Basque and English may account for this (see footnote 5).
7. It should be noted here that this strategic use of the L1 may or may not be conscious. Similarly, we highlight that the use of L1-based or other strategies does not lead to errors exclusively; perfectly correct language can also be the result of successful strategy application.

References

- Alonso, M.R. and Palacios Martínez, I.M. (1994) Expresión escrita y transferencia: Análisis de errores en la lengua escrita de estudiantes de español como segunda lengua. *REALE* 2, 23–38.
- Arabski, J. (ed.) (2006a) *Cross-linguistic Influences in the Second Language Lexicon*. Clevedon: Multilingual Matters.
- Arabski, J. (2006b) Language transfer in language learning and language contact. In J. Arabski (ed.) *Cross-linguistic Influences in the Second Language Lexicon* (pp.12–21). Clevedon: Multilingual Matters.
- Celaya, M.L. (1992) *Transfer in English as a Foreign Language: A Study on Tenses*. Barcelona: PPU.

- Celaya, M.L. (2007) 'I study *natus* in English': Lexical transfer in CLIL and regular learners. Paper presented at the AESLA Conference, Murcia, Spain, 19–21 April 2007.
- Celaya, M.L. and Torras, M.R. (2001) L1 influence and EFL vocabulary: Do children rely more on L1 than adult learners? *Proceedings of the 25th AEDEAN Meeting*. December 13–15, University of Granada, 1–14.
- Cenoz, J., Hufeisen, B. and Jessner, U. (eds) (2001) *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives*. Clevedon: Multilingual Matters.
- Cenoz, J. (2001) The effect of linguistic distance, L2 status and age on cross-linguistic influence in third language acquisition. In J. Cenoz, B. Hufeisen and U. Jessner (eds) *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 8–20). Clevedon: Multilingual Matters.
- Cenoz, J. (2003) The influence of age on the acquisition of English: General proficiency, attitudes and code mixing. In M.P. García Mayo and M.L. García Lecumberri (eds) *Age and the Acquisition of English as a Foreign Language* (pp. 77–93). Clevedon: Multilingual Matters.
- De Angelis, G. and Selinker, L. (2001) Interlanguage transfer and competing linguistic systems in the multilingual mind. In J. Cenoz, B. Hufeisen and U. Jessner (eds) *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 42–58). Clevedon: Multilingual Matters.
- Dewaele, J.M. (1998) Lexical inventions: French interlanguage as L2 versus L3. *Applied Linguistics* 19 (4), 471–490.
- Dewaele, J.M. (2001) Activation or inhibition? The interaction of L1, L2 and L3 on the language mode continuum. In J. Cenoz, B. Hufeisen and U. Jessner (eds) *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 69–89). Clevedon: Multilingual Matters.
- Dušková, L. (1969) On sources of errors in Foreign language learning. *IRAL* 7 (1), 11–36.
- Ecke, P. (2001) Lexical retrieval in a third language: evidence from errors and tip-of-the-tongue states. In J. Cenoz, B. Hufeisen and U. Jessner (eds) *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 90–114). Clevedon: Multilingual Matters.
- Fernández, S. (1997) *Interlengua y Análisis de Errores en el Aprendizaje del Español como Lengua Extranjera*. Madrid: Edelsa.
- Gabrys-Barker, D. (2006) The interaction of languages in the lexical search of multilingual language users. In J. Arabski (ed.) *Cross-linguistic Influences in the Second Language Lexicon* (pp. 144–166). Clevedon: Multilingual Matters.
- García Lecumberri, M.L. and Gallardo, F. (2003) English FL sounds in school learners of different ages. In M.P. García Mayo and M.L. García Lecumberri (eds) *Age and the Acquisition of English as a Foreign Language* (pp. 115–135). Clevedon: Multilingual Matters.
- Gost, C. and Celaya, M.L. (2005) Age and the use of L1 in EFL oral production. In M.L. Carrió Pastor (ed.) *Perspectivas Interdisciplinarias de la Lingüística Aplicada* (pp. 129–136). València: Universitat Politècnica de València – AESLA, Asociación Española de Lingüística Aplicada.
- Herwig, A. (2001) Plurilingual lexical organization: Evidence from lexical processing in L1–L2–L3–L4 translation. In J. Cenoz, B. Hufeisen and U. Jessner (eds) *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 115–137). Clevedon: Multilingual Matters.
- James, C. (1998) *Errors in Language Learning and Use. Exploring Error Analysis*. London: Longman.

- Jarvis, S. (2000) Methodological rigor in the study of transfer: Identifying L1 influence in the interlanguage Lexicon. *Language Learning* 50 (2), 245–309.
- Kellerman, E. (1977) Toward a characterisation of the strategy of transfer in second language learning. *Interlanguage Studies Bulletin* 2, 58–145.
- Lasagabaster, D. and Doiz, A. (2003) Maturational constraints on foreign-language written production. In M.P. García Mayo and M.L. García Lecumberri (eds) *Age and the Acquisition of English as a Foreign Language* (pp. 136–160). Clevedon: Multilingual Matters.
- LoCoco, V. (1975) An analysis of Spanish and German learners' errors. *Working Papers in Bilingualism* 7, 96–124.
- Marsh, D. (2000) *Using Languages to Learn and Learning to Use Languages. An Introduction to CLIL for parents and young people*. TIE-CLIL – On WWW at www.clilcompendium.co/1uk.pdf.
- Meara, P. (1984) The study of lexis in interlanguage. In A. Davies, C. Criper and A.P.R. Howatt (eds) *Interlanguage* (pp. 225–239). Edinburgh: Edinburgh University Press.
- Navés, T., Miralpeix, I. and Celaya, M.L. (2005) Who transfers more... and what? Cross-linguistic influence in relation to school grade and language dominance in EFL. *International Journal of Multilingualism* 2 (2), 113–134.
- Odlin, T. (1989) *Language Transfer* (2nd edn, 1996). Cambridge: Cambridge University Press.
- Odlin, T. (2003) Cross-linguistic influence. In C. Doughty and M. Long (eds) *The Handbook of Second Language Acquisition*. Oxford: Blackwell.
- Olsen, S. (1999) Errors and compensatory strategies: A study of grammar and vocabulary in texts written by Norwegian learners of English. *System* 27, 191–205.
- Ringbom, H. (1983) Borrowing and lexical transfer. *Applied Linguistics* 4, 207–212.
- Ringbom, H. (1987) *The Role of the First language in Foreign Language Learning*. Clevedon: Multilingual Matters.
- Ringbom, H. (2001) Lexical transfer in L3 production. In J. Cenoz, B. Hufeisen and U. Jessner (eds) *Cross-linguistic Influence in Third Language Acquisition: Psycholinguistic Perspectives* (pp. 59–68). Clevedon: Multilingual Matters.
- Ringbom, H. (2006) The importance of different types of similarity in transfer studies. In J. Arabski (ed.) *Cross-linguistic Influences in the Second Language Lexicon* (pp. 36–45). Clevedon: Multilingual Matters.
- Rokita, J. (2006) Code-mixing in early L2 lexical acquisition. In J. Arabski (ed.) *Cross-linguistic Influences in the Second Language Lexicon* (pp. 177–190). Clevedon: Multilingual Matters.
- Singleton, D. (2006) Lexical transfer: Interlexical or intralexical? In J. Arabski (ed.) *Cross-linguistic Influences in the Second Language Lexicon* (pp. 130–143). Clevedon: Multilingual Matters.
- Singleton, D. and O'Laoire, M. (2004) Psychotypology and the 'L2 Factor' in cross-lexical interaction: An analysis of English and Irish influence in learner French. Paper presented at the EUOSLA Conference, September 2004.
- Taylor, B. (1975) The use of overgeneralization and transfer learning strategies by elementary and intermediate students of ESL. *Language Learning* 25 (1), 73–107.
- Tremblay, M.C. (2006) Cross-linguistic influence in third language acquisition: The role of L2 proficiency and L2 exposure. *Ottawa Papers in Linguistics* 34, 109–120. On WWW at <http://aix1.uottawa.ca/~clo/Tremblay.pdf>.
- Viladot, J. and Celaya, M.L. (2006) How do you say 'preparar'? L1 use in EFL oral production and task-related differences. Paper presented at the XXX AEDEAN Conference, University of Huelva, 14–16 December.

- Williams, S. and Hammarberg, B. (1998) Language switches in L3 production: Implications for a Polyglot Speaking Model. *Applied Linguistics* 19 (3), 295–333.
- Zimmermann, R. (1986a) Classification and distribution of lexical errors in the written work of German learners of English. *Papers and Studies in Contrastive Linguistics* 21, 31–40.
- Zimmermann, R. (1986b) Semantics and lexical error analysis. *Englisch-Amerikanische Studien* 2, 294–305.
- Zimmermann, R. (1987) Form-oriented and content-oriented lexical errors in L2 Learner. *International Review of Applied Linguistics* 25, 55–67.

Chapter 8

Themes and Vocabulary in CLIL and non-CLIL Instruction¹

JULIETA OJEDA ALBA

Introduction

In the last few decades we have witnessed an increasing acknowledgment of the centrality of lexis in language (e.g. Meara, 1987; Schmitt & McCarthy, 1997; Wilkins, 1972). At the same time, a belief in the beneficial effects of vocabulary competence on the quality of writing has gained almost universal consensus (e.g. Engber, 1995; Lee, 2003; Read, 1998). Sharing both these notions, the vocabulary of a group of learners of English as a foreign language (EFL) has been analysed here. This study examines the lexical items implemented in the written production in English of a sample of EFL learners who have acquired their knowledge of the L2 by means of two different methods of second language instruction: English as a vehicular language (EVL) and English as a subject (ES). Given the wide variety of approaches and implementations there have been for each one of these methods, our own understanding of each of them is briefly defined prior to the initiation of the study proper.

As is well known, ES is the long-established traditional system that has been customarily applied in most western educational institutions for decades, if not centuries. In spite of the profusion of schools and approaches (silent way, suggestopedia, total physical response, communicative and countless others), the common feature that encompasses all these currents seems to be that in all of them the target language is perceived as the single object of the learning process, the subject matter to be taught. Thus, with the purpose in mind of understanding the structure of the target language, this is customarily dissected into different linguistic components such as grammar, phonetics and vocabulary, among others. Moreover, these components, which constitute the kernel object of study, have been often presented to the learners in their own native language: a practice that greatly reduces the L2 input received.

Alternatively, when referring to Content and Language Integrated Learning (CLIL) instruction, otherwise known as bilingual teaching, and others (e.g. Dalton-Puffer & Smit, 2007: 7), we understand an approach to foreign language teaching in which language instruction is organised around non-linguistic topics, themes and/or various subject matter rather than around linguistic lesson plans. The target language becomes the vehicular language for the teaching of other subjects, a tool by means of which non-linguistic subject matter, such as geography or mathematics, is imparted. Hence, CLIL methods attempt to reproduce the way in which first or native languages are learned. Although these CLIL methods were 'officially' initiated in the 1980s, it was almost a decade later that a flourishing of research came, and it has been only in the last few years that interest has reached an international scale.

Nonetheless, CLIL cannot fairly be said to be ground-breaking in the second language instruction landscape; indeed, analogous approaches had inconspicuously been practiced much earlier with no label whatsoever attached to them. We entirely concur with David Marsh's observation that CLIL is not new and that 'Societies knowing that some citizens should have the gift of speech in different languages, have long been involved with forms of CLIL' (2000: 9). In Spain, for instance, in university English language departments, it was customary as early as in the 1960s to impart history, literature and other subjects within the degree programmes in the target language: the pursued goal being, of course, to improve the linguistic level of the students. We will not expand here on the history and present status of CLIL methods in Spain since, in this same volume, Fernández Fontecha provides a state of the art account of the research conducted on Spanish bilingual education.

However, it seems reasonable to expect a priori that there should be a correlation between the amount of exposure to a language and the competence achieved by learners. Liss Kerstin Sylvén observes that '[...] one of the most influential factors in vocabulary acquisition, and in consequence in communicative competence, is the amount of exposure to the target language.' (2006: 48) and it would be a platitude to note that CLIL students do have substantially more exposure to the target language than non-CLIL. Common sense and the empirical and theoretical research conducted so far suggest that the L2 competence itself is invariably benefited by the increase of input (e.g. Brinton *et al.*, 2003; Marsh & Marshland, 1999; Muñoz, 2001). In accord with all the above, we also postulate that CLIL should not be envisioned as a panacea, as Marsh clarifies, 'It does not replace formal language instruction, but complements it, and in so doing, introduces an educational context to which more traditional language teaching will need to be adapted' (1999: 16).

For some researchers the substantial increase of teaching matter in CLIL methods may present an initial difficulty. Ursula Stohler observes that

there is some scepticism as to whether the acquisition of knowledge in other school subjects may be as efficient when implementing CLIL approaches as when taught in the students' native language: the question being 'if the use of an L2 in the teaching of non-linguistic subject matters creates deficiencies in the pupils' conceptualization of classroom topics' (2006: 41). Stohler's remark is often echoed by learners. Veronika Ziková, examining CLIL at grammar schools in the Czech Republic, passed out 95 questionnaires to be completed by EFL learners who had to express their opinion on the advantages and disadvantages of CLIL. After analysing the responses she observes that the most frequent disadvantage reported by the informants was their own 'anxiety for studying other subjects in English as they fear misunderstanding the content of the lessons' (2008: 72).

It may be concluded that the rationale underlying CLIL instruction meets no serious challenge, but we are confronted with the impossibility of implementing CLIL in every educational institution. Thus, a reasonable way to improve matters might be to conduct close analyses and comparisons of both methods in order to integrate into each of them the compatible successes of the other, and thereby exploit the strengths of each. In this scenario, one way to shed some light is to compare the different outcomes of two similar groups instructed by the two different methods mentioned above when performing identical L2 tasks.

Methodology

Objectives

In light of the above, we have deemed it of some value to compare the vocabulary most frequently implemented by two samples of participants who are homogeneous in all except one variable: the type of instruction. This is an empirical study that, as far as we can tell, has not yet been accomplished. Specifically, in this chapter we have set out to identify the vocabulary implemented in a set of school compositions written by two groups of female primary school students from the two types of second language instruction under discussion: CLIL and non-CLIL. Then, we have focused on analysing, comparing and discussing the similarities and differences between the practical results found in both samples. Finally, we have attempted to give some preliminary interpretation of the results.

Informants and procedure

The informants of our study are 130 female students enrolled in the 6th grade of primary education (average age ± 11): half of this number are CLIL learners from one urban middle-class single-sex school in the city of Bilbao, Basque Country. The other half are the results of a random selection from the female participants of a non-CLIL vocabulary project based

at the university of La Rioja. This project has had, since its initiation back in 2003, a total number of 289 participants, all of them primary school EFL learners from four different co-educational schools located in Logroño, La Rioja. However, in this study, the total number of participants was determined by the fact that, at the moment of gathering the data, the only CLIL students available to us were these 65 females from the Basque school mentioned above: regrettably, there were no other schools implementing CLIL available. Thus, to make the CLIL and non-CLIL samples comparable in size, we were compelled to select the equivalent number of 65 female students from the Riojan co-educational sample. That selection was done as follows: after passing over all the males, the first female students from each of the four schools involved in the Riojan project were selected until the required number of 65 was reached.

In addition, for the sake of accuracy, we also make use of a sub-corpus of compositions. Back in 1995 Batia Laufer and Paul Nation observed that lexical variation is text-length sensitive in such a way that the longer a given written text is, the lower the type token² ratio (TTR) is bound to be. Other scholars have later elaborated on this same idea (e.g. Baayen, 2001; Malvern *et al.*, 2004). All of this, of course, establishes a limitation in the assessment of our sample's written performance in terms of lexical variation, since those participants who write longer compositions are *a priori* at risk of having a comparatively lower TTR. To circumvent, or at least control, this hazard we have adhered to the 100 token convention, and all tables within this chapter have been made on the basis of a sub-corpus of an even 100 token texts selected from the original 130 composition corpus. The procedure was as follows: when there were fewer than 100 tokens in a composition it was excluded, while those compositions that exceeded that length were chunked to the exact number of 100 tokens. The resulting sub-corpus reached a total of 60 comparable texts to which we will henceforth refer as the 100 token sub-corpus.

At the time the data were collected, the non-CLIL informants had received 629 hours of tuition in EFL. The CLIL students had received 960 hours of EFL tuition; additionally, they had also received the following CLIL tuition: two hours per week in Science in first and second courses; two hours per week in Science, and two more in Art and Craft in third, fourth, fifth and sixth. The compositions were all written during the school year 2005–2006, and the students were given the following directives:

Imagine you are going to live for a month with an English family (the Edwards), in Oxford. There are four members in the family: Mr. and Mrs. Edwards, and the children Peter and Helen. Write a letter to them in English in which you should introduce yourself, and tell them about your town, your school, your hobbies, and any other thing of interest that you would like to add.

Before beginning the task, the informants were also given the same explicit oral instructions in Spanish. The time allotted to complete the task was 30 minutes. Once the compositions had been collected they were edited, a process which, due to the informants' often unintelligible handwriting, consisted of first decoding the words written; then, Spanish proper names, as well as all other Spanish words, were deleted prior to quantitative counts. Nevertheless, in the examples given in this study the Spanish words have sometimes been reintroduced only in order to illustrate certain points. Then the compositions were typed into the computer and processed by means of the word analyser *WordSmith Tools* (Scott, 1996), a program that counts and organises words according to different formal characteristics, so that alphabetical, frequency and concordance lists are yielded.

For the purpose of the present study words were lemmatised; unfortunately, lemmatisation is a decision-plagued procedure, and there are no standardised systems (Sinclair, 1992). Following Francis and Kucera, we understand lemma as a 'set of lexical forms having the same stem and belonging to the same major word class, differing only in inflection and/or spelling' (1982: 1). In our procedure all inflectional variants within one word class were counted as lexemes under one stem or lemma, but not when they belonged to different word classes: thus, 'friend' and 'friends' were counted as one type, while 'friendly' and 'friendship' were counted as different entries. A careful manual qualitative analysis was also applied to each essay with the purpose in mind of solving possible lexical ambiguities originated by polysemy, of determining contextual meanings, interpreting the intended meaning of holophrases and so on. Then, words were arranged in different lexical fields. Finally, the results elicited from both samples were compared and briefly discussed.

Lexical field theory was a product of semantic structuralists, it has served many purposes such as illustrating how a specific semantic area is sub-divided in a given language. Although it is not our intention to discuss here its origin, nature or applications, we would like to clarify that we are employing it as a prêt-à-porter taxonomy that serves us well to classify and organise the lexis found in our corpus. We follow Singleton's concise definition that economically differentiates between 'semantic field' and 'lexical field'. Singleton views lexical field theory as

[...] an approach based on the idea that it is possible to identify within the vocabulary of a language particular sets of expressions (lexical fields) covering particular areas of meaning (semantic fields) where the lexical organization is such that the relevant lexical units precisely mark out each other's territory. (2000: 66–67)

With the intention of paying due attention to syntagmatic relations, each lexical item has been carefully examined in its context before being assigned to a specific lexical field.

Results

The words found in the compositions pertain to numerous lexical fields; however, we merely discuss here those with the highest incidence of types: Table 8.1 illustrates the incidence of topics. The recurrence of lexical units related to the family domain includes the description and discussion of the participants' family members, which sometimes lead to write about professions, particularly those of parents. Next comes the topic of friendship, an area that is heavily inter-related with that of school, and particularly schoolmates. Another focus of interest has been physical appearance which, together with the description of spiritual and intellectual characteristics, is reflected in the adjectives describing their family, friends and even themselves. Testees have also been eager to inform about their own likes and dislikes, which has led to the implementation of vocabulary related to games, sports and music. Finally, the animal realm has also prompted a considerable number of hyponyms. In the following paragraphs, we examine in some detail the vocabulary implemented in the different areas, and briefly compare its application in the two different instructional contexts, while trying to detect behaviour patterns, if any.

Kinship terms

The kinship domain initiates the catalogue of findings. In the CLIL sample as many as 90% of the informants have written about their families;

Table 8.1 Lexical fields types and tokens in the 100-token corpus

<i>Lexical field</i>	<i>CLIL</i>		<i>Non-CLIL</i>	
	<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Family	15	110	15	100
Professions	7	12	6	17
School	24	93	22	111
Food	16	28	19	31
Sports	23	107	20	68
Music	6	13	5	13
Animals	6	27	14	48
Looks	13	27	11	47
Character	8	19	3	5
Total	118	436	115	440

Table 8.2 Kinship types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Sister	24	Father	21
Brother	21	Brother	17
Father	17	Mother	17
Mother	15	Sister	16
Family	14	Family	11
Dad	4	Grandmother	3
Mum	4	Mum	3
Parents	3	Parents	3
Kid	2	Dad	2
Cousin	1	Uncle	2
Grandfather	1	Aunt	1
Grandmother	1	Cousin	1
Infant	1	Grandfather	1
Mom	1	Grandparents	1
Twin	1	Granny	1
Total 15	110	Total 15	100

and among the non-CLIL group the proportion is slightly higher: 93.5% have implemented this topic. As illustrated in Table 8.2, both the CLIL and non-CLIL groups have used an equal number of types, though the former sample includes a few more tokens than the latter. A suggestive feature of this topic is that both samples seem to have made use of their family members' characteristics to frame their own position in society: that is to say, as a kind of instrument for self-definition and belonging within their specific social context. For instance, CLIL student number 46 reports:

My family is not very big but is very famous family.³

Non CLIL informant number 2 observes:

I haven't got any sister and any brother. [...] My mother is nurse and my father is a [...], I'm very rich, I've got a zoo in Africa. [...] my father is from Saturn is green and blue.

By means of this strategy, the youngsters skilfully apply their parents' qualifications to position themselves within a 'famous' or 'rich' family locus. This was to be expected, since in early adolescence most children are still in that phase of their cognitive development in which egocentrism is still one of their distinguishing features (e.g. Elkind, 1967; Inhelder & Piaget, 1958; Mitchell, 1998; Santrock, 2001). Indeed, they seem to feel they are the axis of creation, Inhelder and Piaget remark, 'This egocentrism is one of the most enduring features of adolescence; it persists until the new and later decentring which makes possible the true beginnings of adult work' (1958: 343). Consistent with the above findings, in our sample adolescent egocentrism ranks high: 'I' and 'my' have a notably high presence of 8.18% and 6.40%, respectively, of the corpus total number of tokens. It may be argued that function words usually occupy top positions in frequency lists, but 'I' has a comparatively low figure of 0.88% usage in Leech *et al.*'s list (2001) and 'my' has an incidence of an even lower 0.15% in that same list. Again, it could be objected that in this type of composition in which apprentices have been instructed to write about themselves, it is only natural that the informants should use the first person pronoun, but perhaps not so much the possessive 'my'. At any rate, even taking this directive into consideration, percentages are high. In this same line, students have also written about their possessions, and 'have' which has a frequency of 0.47% in the above authors' list, has 2.26% in our corpus, five times higher!

The family members most often mentioned are parents and siblings, but the two groups refer to them in slightly different proportions: the CLIL corpus has 'sister' in the first position, while the non-CLIL has 'father'. These results might suggest a more independent attitude among the CLIL group participants, since they allude fewer times to the potentially most authoritarian family members 'father' and 'mother' than to their peers ('siblings'). In addition, the CLIL sample seems to have a slight tendency to use a wider range of types including both colloquial and even sophisticated words. In use, for instance, are 'kid' and 'infant', absent in the non-CLIL sample. Inversely, the non-CLIL group uses a couple of nouns, 'uncle' and 'aunt', which are missing in the CLIL group, but which again by definition belong to the category of potentially authoritarian adults. Curiously, these last two words are included in Nation's 2000 word frequency list (1984), and in most textbooks; while 'kid' and 'infant' are absent. It may safely be inferred that terms like these have been assimilated in CLIL instruction classes.

Profession and trade terms

Information about the participants' families deals mostly with names, age, physical features and spiritual or intellectual accomplishments. Also,

Table 8.3 Profession types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Teacher	4	Teacher	12
Doctor	2	Architect	1
Nurse	2	Coach	1
Archaeologist	1	Lawyer	1
Dentist	1	Nurse	1
Engineer	1	Tennis player	1
Singer	1		
Total 7	12	Total 6	17

in the case of parents, they sometimes include their occupations: the professions included in Table 8.3 are mostly applied to parents. This is consistent with the findings of some evolutionary psychologists who claim that socio-economic status (SES) plays a crucial role in the lives of adolescents. For instance, Adler and Kless (1992) observe that girls often gain peer acceptance on the bases of ascribed qualities, such as their parents' social status. Our results suggest that participants have volunteered their parents' line of work when it was sufficiently well qualified. CLIL participant number 5 informs:

My mather is nurse and she is very famus [...]

And non-CLIL informant number 88 writes:

My father is lawyer and my mother is nurse.

All the named professions of parents within the CLIL 100 token sub-corpus are rather well qualified.

In the non-CLIL sample parents have a similar treatment: they are mostly said to be teachers, nurses and the like; informant number 231 illustrates how highly esteemed the latter profession ranks among her peers when, possibly unable to say in L2 anything as 'flattering' about her own mother's unknown profession, refers to an aunt and observes:

My aunt is nurse in the hospital every afternoon.

Student number 98 reaches afar when she writes:

My mather is teacher of frach and English [...] my granma is princess of Spain [...] My brother is Brad-Pitt, and my father is Superman.

Obviously the information is, at least partially, a fabrication; but, independently of whether this participant's mother is indeed a teacher, by ranking this profession with a 'princess' and with a famous Hollywood star, she does strengthen our argument that parents' professions are paid homage: a strategy that peripherally raises the participants' own social significance. The exception is student number 178 who acknowledges both her parents to be blue-collar workers:

My father and my mother working is hand working in the shoes.

but she seems eager to regain ground for what might be perceived either as a shortcoming or as an uninteresting piece of information, by enumerating some of her possessions, and thus continues writing:

I have 12 hand bag. I have 30 band and rings.

It is noteworthy that this participant is unable to define with precision her parents' trade. That is to say, the common expression 'factory worker' seems not to be part of her available vocabulary.

All things considered, it can be surmised that our informants prefer to mention their parents' jobs only when they have deemed the information to be an indicator to others of a certain social position. The possibility that they might be fantasising when attributing to their parents those professions perceived as desirable would reinforce this same interpretation. Nonetheless, the example of informant number 178 seen above suggests another conceivable explanation: the participants may have received more qualified profession vocabulary input than otherwise.

It is also remarkable that, despite the fact that this identity formation stage involves, among other aspects, '[...] the development of career interests and choices' (Harter, 1999), the achievements and professions they write about refer to their parents rather than to themselves. Among the non-CLIL group only one subject specifies what she hopes to become when she grows up to be an adult. Among the CLIL group three students have spelled out their future professional plans: these data suggest that the testees of the former group have a slightly more mature stance in this respect. Again, in both samples, the chosen professions are degree programmes, rather than vocations.

Friendship terms

Although early adolescents have been traditionally described as self-absorbed, comradeship is also an essential presence in their lives (e.g. Corsaro, 2003; Piaget, 1964; Sebald, 1992). Laura L. Finken observes that 'in early adolescence (approximately ages 11 to 13), parents and same-gender friends provide equivalent amounts of support;' (2005: 259). This centrality of friendship permeates students' compositions: they claim that

they have many friends, and that they like playing with them; and they inform about their names, ages, physical and character features. However, since the adjectives implemented in the descriptions are not specifically or exclusively used for friends, these adjectives are independently commented upon in the section School terms, and the only three terms discussed here are 'friend', 'friendly' and 'friendship'. In the CLIL sample the word 'friend' has been used by 36.66% of the informants, with statements such as that of student number 21, who observes:

I have a lot friends, and my best friends are: Jennifer.

And number 12 who claims:

I have a lot of friends and I am good a gymnasia ritmica (acrobatic).

The implication seems to be that having 'a lot of friends' is socially considered an added value comparable to being good at acrobatics. This is, again, consistent with findings by evolutionary psychologists (e.g. Crockett, 1984; Bukowski *et al.*, 1987).

Among the non-CLIL group there has been a much higher incidence with 90% of the subjects implementing the term 'friend', as well as two occurrences of the term 'friendly'.

My friends are Claudia, Laura, Rocio, Iris, Carmen S, Carmen F Carmen G, Laura, Irene, Irene P, Elisa, and my best friend is very beautiful.

This substantial disparity in number of tokens is not merely connected to the higher percentage of subjects implementing the topic, but also to the dissimilarities in lexical variation as well. These findings are entirely in accordance with those of Agustín and Jiménez (2007) in their study on lexical reiteration. Implicit knowledge might lead an observer familiar with the context to conclude that the dissimilar incidence of friendship might be related to the sort of communities where the informants of each sample dwell: possibly in Logroño, a much smaller city than Bilbao, communication and visits among friends are greatly facilitated by shorter distances, a circumstance that might render friendship a more prominent feature in the daily lives of the non-CLIL informants (Table 8.4).

Table 8.4 Friendship types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Friend	13	Friend	47
		Friendly	2
Total 1	13	Total 2	49

School terms

As seen in Table 8.5, this field has yielded the largest number of types, although it should again be taken into account that it was encouraged by means of the instruction letter. In the entire sample friendship is often intertwined with the conceptual domain of schooling. Educational institutions are a major source of socialisation for the young, and in consequence both domains are heavily inter-related. In the CLIL sample 13.33% of

Table 8.5 School types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
School	27	School	41
English	11	Teacher	19
Teacher	8	Class	12
Read	6	English	11
Book	5	Chair	3
Gymnastic	5	Pupil	3
Subject	4	Reading	3
Letter	4	Books	2
Study	3	Classroom	2
Class	2	Pen	2
Learn	2	Study	2
Practice	2	Bench	1
University	2	Blackboard	1
Write	2	Computer	1
Drawing	1	Draw	1
Education	1	Geography	1
Grammar	1	Idiom	1
History	1	Map	1
Language	1	Playground	1
Lesson	1	Primary	1
Maths	1	Science	1
Primary	1	Subject	1
Science	1		
Student	1		
Total 24	93	Total 22	111

the students who discuss this topic associate it to friendship, informant number 5 states:

I study in [name of her school] and I have 23 friens.

Among the non-CLIL group the proportion is higher with 33.33% of participants associating friends to school, informant number 27 boasts:

In my school I have got lot of friends.

All in all, in the CLIL sample 80% of the subjects volunteer information about some aspect of their school, and in many cases they affectionately refer to it by its proper name, and describe it as 'beautiful' and 'big', an adjective that in this corpus seems to function as a hyponym of 'good', CLIL informant number 51 draws a positive parallelism:

My school is very big and my teachers are very nice.

And non-CLIL student number 1 observes:

My school is very beautifull and big.

In the non-CLIL group the students who discuss school represent 93.33%, and many informants also refer to it by its proper name. As shown in Table 8.5, the number of types implemented by each group differs in two hapaxlegomena, in favour of the CLIL group, while the number of tokens is higher in the non-CLIL sample. These figures are again the consequence of higher lexical reiteration on the part of the non-CLIL participants: for instance, non-CLIL informant number 243 repeats the term 'school' as many as eight times in her composition, providing the following information:

In the school I have got friends, [...] My school is very big and his playground is very big. [...] I play the piano very well in the music school, [...] but the instrument have got at school, [...] I get up at half past seven [...] for go to the school. I go to the school at hal past eight and the school start at nine o'clock. [...] And in the afternoon I go to start the school a quarter past three and go to home once a cuarter past five.

In addition, in the school context we have found occasional allusions to acquaintances of a different sort than friendship: non-CLIL informant number 274 adds this extra meaning when she comments:

I haven't got boyfriend but the more beautiful boyfriend is: Eyes blue, tall and thing.

While CLIL informant number 2 explicitly rejects male friendship when she complains:

My friends are very nice too, but they like to go with boys, I don't like this.

Furthermore, exceptionally school becomes the locus where students encounter hostility, a point illustrated by non-CLIL student number 227 when she explains:

The people in my school is friendly, but two boys aren't friendly.

However, the presence of enmity and romantic involvements are negligible.

Looks and personality description terms

With regard to the description of people, both groups have favoured different areas. In the CLIL sample 33.33% of participants have focused on looks, describing tangible features such as height, weight, colour of eyes, colour of hair and so on, while 43.33% concentrate on character traits, using more abstract adjectives such as 'shy', 'nice' or 'kind'. From the CLIL sample, a different selection of available words has been elicited: 43.33% of the subjects describe people physically, and only 10% refer to other types of spiritual or psychological traits (see Tables 8.6 and 8.7).

Table 8.6 Physical appearance description types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Brown	7	Brown	17
Tall	7	Beautiful	10
Pretty	3	Tall	6
Curly	2	Green	4
Beautiful	1	Black	3
Black	1	Big	2
Big	1	Long	1
Fat	1	Pretty	1
Green	1	Small	1
Normal	1	Strong	1
Short	1	Thin	1
Thin	1		
Straight	1		
Total 13	28	Total 11	47

Table 8.7 Personality description types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Good	5	Nice	3
Nice	5	Kind	1
Funny	3	Polite	1
Nervous	2		
Happy	1		
Messy	1		
Shy	1		
Talkative	1		
Total 8	19	Total 3	5

A curious aspect that might correlate to prototype theory is the avoidance strategy exercised by the entire sample to shun those characteristics socially considered as flaws. We are entitled to speculate that, overwhelmed by prevalent media role models who are invariably tall and beautiful, our testees have applied the same set of values to the assessment and description of their families, friends and even themselves. For instance, perchance because height is a condition *sine qua non* to attempt such a fashionable profession as modelling, the type 'tall' has 13 occurrences (6 elicited from the non-CLIL sample and 7 from the CLIL), whereas the antonym 'short' has only one occurrence in the CLIL sample. The same can be reported of the gradable pair 'beautiful'/'ugly' with 11 occurrences in the former (10 non-CLIL and 1 CLIL) and zero in the latter. In addition 'pretty' has a total of 4 occurrences (3 in CLIL and 1 in non-CLIL).

In the light of these data it could be inferred that our informants and their families happen to be taller and more handsome than average; although, considering the present day media representations of standard beauty it seems more realistic to conclude that our subjects have avoided applying neutral or negative features to their immediate family members: they seem to have highlighted people's characteristics that are judged to be socially acceptable, and downplayed those considered immaterial or socially unattractive. Observations such as that of non-CLIL participant number 228 are quite informative. This participant wants to clarify that, although she may not meet today's standard of excessive slenderness, she cannot be called fat, and so she clarifies:

I are tall, don't fat but don't thin

It is equally noteworthy that in the entire sample, students attribute to themselves characteristics socially perceived as positive, but quantifiable with some degree of objectivity. Inversely, they demurely avoid praising excessively their own looks by using adjectives such as 'beautiful' or 'pretty', which cannot be objectively quantified. This hesitation is exemplified in the words of CLIL informant number 26, who, after defining herself as beautiful, instantly amends her own assertion and ranks her looks within parameters of normality:

OK, I'm very beautiful, No, I am normal

In contrast, as mentioned above, our subjects are not diffident when applying subjective positive adjectives to refer to other members of their families, to friends and even to teachers. Non-CLIL student number 13 establishes the two parameters when she observes:

My brothers and my sister are beautiful. When I was a baby I hadn't thoot and I was sleep and ate

CLIL informant number 42 declares:

My mother is very pretty, she is an ingener.

However, non-CLIL student number 214 straightforwardly defines what she considers the ideal gendered standards by writing about her parents:

My mom is tall and beautiful, my dad is strong and big.

Exceptionally, CLIL subject number 8 either fantasises or pokes fun at the recipients of her letter when she writes:

In a day I'm one girl normal but in the naight I'm super Pati.

Food terms

Unfortunately, the kind of physical profile today's society demands the individual to keep is at odds with the consumption of some of the food-stuff our participants refer to in their written discourse. As can be seen in Table 8.8, our subjects' implementation of food vocabulary does not seem to be concerned with health. The percentage of participants who have used food vocabulary is as follows: in the CLIL sample 26.66% of individuals have volunteered details of their food preferences; in the non-CLIL group sample the incidence is much higher, and 76.66% implement food vocabulary. These are high figures if we keep in mind that the participants were not encouraged in the least to introduce this issue, as they were prompted to write about school or sports (and these last two fields are the only ones in the corpus that surpass that of food in lexical variation). Food is also one of the two topics where the types used by the non-CLIL informants outnumber those used by the CLIL testees. An interesting point of

Table 8.8 Food types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Food	7	Food	4
Chips	2	Wine	4
Eat	2	Fish	3
Fish	2	Vegetables	3
Hamburger	2	Eat	2
Pizza	2	Orange	2
Rice	2	Chips	1
Water	1	Chocolate	1
Cannelloni	1	Fat	1
Chicken	1	Fruit	1
Fat	1	Hot	1
Meat	1	Ice-cream	1
Omelette	1	Kitchen	1
Salad	1	Meat	1
Spaghetti	1	Pineapple	1
Strawberries	1	Pizza	1
		Rice	1
		Salad	1
		Sweets	1
Total 16	28	Total 19	31

the implementation of this field in our corpus is the way in which it reflects the alteration of Spanish eating habits: the accelerating pace of life has favoured a different fare from the traditional one (Ojeda Alba & Jiménez Catalán, forthcoming).

Sport and toy terms

Developmental psychologists have often reported the importance of play to children's development (e.g. Fein, 1995; Huizinga, 1950; Sutton-Smith, 1986), and the preconceived idea that boys like sports and girls like dolls has

existed for centuries in our western societies. However, the participants, all young females of about 11 years of age, do not seem to conform to that belief, and the vocabulary they have implemented suggests that the above notion is today a misconception. Words such as 'doll', 'cut-out' and the like are entirely absent, and CLIL informant number 5, who uses the word Barbie as a synonym for doll, consistent with our findings, claims:

I love football but I doesn't like Barbies.

The reader is surprised that, while 'football' seems emotionally loaded for this girl, liking dolls seems to carry some kind of negative association. No more references to traditional female toys such as 'doll houses' or 'skipping ropes' have been included in this corpus. Nonetheless, non-CLIL student number 159 uses her native language to express a traditional unisex game, and claims:

My favourite play is the escondite.

On the contrary, as shown in Table 8.9, sport-related types have been comparatively abundant: up to 23 types have been used by the CLIL group and 20 by the non-CLIL participants. Ojeda Alba and Jiménez Catalán mention elsewhere (2007) the present tendency of 'masculinisation' in the vocabulary production of EFL young learners, a trend that is confirmed by the present data. It is reasonable to attribute this penchant to the modern way of life that encourages independent, sportive women who claim their right to do as males do in every walk of life. The remarkable fact is the rapid pace of this transformation: in their love for sports the interest of young females often surpasses the interest of males. In our corpus they do not simply refer to sports, but often declare their extreme fondness for them. This positive appraisal eliminates the interpretation that the presence of sports terms is the mere consequence of the received input.

In the CLIL sample 66.15% of the students declare to like and/or practice some sport (football, basketball, tennis, swimming and others). In many cases the informants simply use the superordinate 'sports', but there is also rather high lexical variation. Some of these sports such as tennis or swimming have long been adopted by women, but football, for instance, was still struggling for full acceptance in the female world just recently. These activities have found their way well into our corpus, in this CLIL sample the word football is used 10 times, and, except for one single exception, it is mentioned in a positive sense; CLIL participant number 2 stresses:

I like very much all sports but the sport that I really like is the football.

The proportion of participants interested in sports in the non-CLIL sample is similar, yielding results of 67.69%; in the practice of the rougher

Table 8.9 Sport types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Play	21	Play	18
Sports	13	Basketball	6
Swim	12	Hobby	6
Football	10	Ride	6
Hobby	9	Swim	6
Tennis	9	Swimming-pool	5
Swimming-pool	7	Football	3
Paddle	6	Athletics	2
Ski	3	Game	2
Basketball	2	Run	2
Horse-riding	2	Sports	2
Run	2	Tennis	2
Acrobatics	1	Aerobics	1
Baseball	1	Athleticism	1
Golf	1	Bike	1
Hockey	1	Jump	1
Riding	1	Motorbike	1
Ping-pong	1	Rider	1
Sailing	1	Rugby	1
Skate	1	Volleyball	1
Sporty	1		
Surfing	1		
Team	1		
Total 23	107	Total 20	68

sports we have also found veritable fans; the words of non-CLIL informant number 28 are again emotionally loaded when she claims:

My football team is Barcelona, I hate Real Madrid, all the boys of my class are of Real Madrid.

Non-CLIL informant number 193 exclaims in a seemingly passionate gush of feelings:

My precious think is the football.

Thus, the vocabulary implemented in the whole sample suggests that girls are catching up with boys in this area.

Media, computer game and book terms

Despite the existing general consensus that young people watch too much television and spend too much time in front of their computers (e.g. Levesque, 2007; Roberts & Christenson, 2001), evidence of this tendency has not been found in this corpus: not much related vocabulary has been implemented from electronic sources. In the CLIL group only one informant, number 20, admits to watching television, and this activity is shared with other more intellectual hobbies such as reading, she informs:

My hobbies are [...] watching TV and reading a lot of book. For example Harry Potter is my favourite book.

Among the non-CLIL sample there are two subjects who assert to watching specific programmes on TV, informant number 28 declares:

I love watching Rebelde way.

And informant number 160 reports:

I like watch Tv and my favorite programme is camera coffe.

Books and reading do not prompt much vocabulary either. In this same CLIL sample the activity of reading yields merely five tokens of the type 'book', two of them declare to like books, and the other two simply inform of their having read something in a book. In the non-CLIL corpus the word 'book' occurs twice, and one of them denotes a negative stance; informant number 283 clearly states:

I don't like read books but I read quickly. I' am finish.

This blatantly conspicuous absence leads us to consider Paul Baker's observation that 'sometimes what is not present in a frequency list can be as revealing as what is frequent' (2006: 57). It is a thought that should stimulate further research.

Music terms

It cannot be doubted that children and adolescents love music, (e.g. Christenson & Roberts, 1998; Roberts & Christenson, 2001), but the implementations of music terms has been comparatively low. Our results show

Table 8.10 Music types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Music	3	Dance	4
Piano	3	Music	4
Play (instrument)	3	Listen	3
Listen	2	Piano	1
Dance	1	Play	1
Sing	1		
Total 6	13	Total 5	13

the following data: 20% of the subjects inform about their musical activities in the CLIL sample, and 23.33% in the non-CLIL. Although the percentages reflect some degree of fondness, the tendency is not nearly as clear as with other lexical fields. As can be observed in Table 8.10, the number of types and tokens is similar in both groups; the CLIL informants exhibit a negligibly higher lexical variation with one more type, and exactly the same number of tokens. This topic has also prompted a number of musicians' proper names: non-CLIL student number 13 breaks the record by mentioning several at once, and if we take the 'I' to be a holophrase with the intended meaning of 'I am', she certainly produces a stream of fabrication when she writes:

I Bridne Spirs, Tania Madonna, Maria Paula Gasola, Angelo. Bye, bye Chenoa Junior Crstian crazy frog and Schinchen.

Animal terms

The superordinate 'animal' and its hyponyms are frequently found in this corpus; in both instructional contexts learners have asserted their love for animals largely projected on pets. This is the field in which both subsamples have shown the greatest inequality: in the CLIL group 35.38% of the informants write about animals, while in the non-CLIL the proportion is almost double with 66.66%. As can be observed in Table 8.11, the CLIL sample has produced a higher number of both types and tokens. In addition, the compositions sometimes suggest that the informants' spontaneous affection is occasionally thwarted by the adults' refusal to allow animals into the house. CLIL student number 47 laments:

I want to have a dog, because I love it, but my father and my mother they don't want.

Table 8.11 Animal types and tokens in the 100-token corpus

<i>CLIL</i>		<i>Non-CLIL</i>	
<i>Types</i>	<i>Tokens</i>	<i>Types</i>	<i>Tokens</i>
Dog	8	Animal	10
Animal	6	Horse	9
Horse	6	Dog	7
Cat	5	Pet	4
Bird	1	Bird	3
Rabbit	1	Cat	3
		Fish	3
		Goldfish	2
		Hamster	2
		Dolphin	1
		Rabbit	1
		Tiger	1
		Turtle	1
		Wolf	1
Total 6	27	Total 14	48

In both samples the frequency list includes familiar names such as ‘cat’ and ‘horse’ at the top of the list. Indeed, names of more exotic animals are included, but the subjects recognise the difficulties in caring for them, and it is often in jest that they assert the ownership of some exotic creature. That is the case of non-CLIL student number 2 who claims:

I’m rich, I’ve got a zoo in Africa, I like the liens, the snakes and the monkeys.

Again, intuitively, we deem the supremacy of the non-CLIL sample in this area to be due to the different environments: being La Rioja a much more rural province, it seems natural that informants, who often write about a ‘pueblo’ (village), where their grandparents are rooted, should have more contact with animals, and consequently be more aware of their presence.

Discussion

We trust the above results provide relevant information to EFL educators. The topics our informants have chosen to write about, and the specific

vocabulary they have produced demonstrate that there are highly concurrent tendencies in both groups, but also some telling discrepancies. However, this is a merely descriptive preliminary study, and descriptive statistical analyses have been applied, a variety of more specific tests should be conducted in order to assess aspects such as motivation, availability and the like. Also, in order to assess whether the data obtained are significant or merely a chance occurrence further inferential statistics and word-association tests such as Singleton advocates (1999) would be of great assistance to evaluate our findings.

In the belief that vocabulary occupies a central position in L2 instruction, we have deemed it of value to analyse the lexical written production of a sample of primary school EFL students when writing compositions in English. This study has first attempted to identify the most frequently used lexical fields, and the specific vocabulary implemented in each one of them. Additionally, it has sought to compare the lexical choices made by students instructed in English by means of two different approaches: EVL and ES.

Our findings provide quantified data of broad similarities, but also of some suggestive dissimilarities between both groups. As seen in Table 8.1, the informants of both approaches have implemented almost an equivalent global number of tokens and types in the fields analysed. The four top positions correspond to identical lexical fields: school, followed by sports, food and family. However, in most other positions deviations have been found.

The entire sample has written profusely about kinship, and an equal number of types has been elicited from both samples. To describe their parent's line of work, participants have consistently used lines of work denoting well-qualified professions, in preference to unskilled trades, which we deem might suggest some degree of social status awareness.

Families and acquaintances have been described by means of physical characteristics as well as by means of personality traits: the former sort of description has been used more frequently by the non-CLIL sample, while the latter has been more prevalent among the CLIL subjects. This dissimilarity might be the consequence of the non-CLIL sample's greater difficulties to express abstract ideas that entail a higher degree of complexity.

The school domain (often connected to friendship) plays an important role in the whole sample, and the CLIL participants have used two more types and 18 tokens fewer than the non-CLIL. This dissimilitude points at the higher lexical reiteration of the non-CLIL.

In the sport-related field the CLIL sample surpasses the non-CLIL in number of types and tokens, and one of the most remarkable aspects in the whole sample is the inclusion of traditionally male-oriented sport vocabulary by these female informants.

Contrary to expectations, computer games, television and book vocabulary have been mostly disregarded in the entire sample, and percentage values are negligible. In the topic of music, differences are minor in favour

of the CLIL group, in which one more type has been used, while the number of tokens is identical in the entire sample. These unexpected findings (given the straightforward suggestion of the directives) might be the effect of an insufficient or inadequate vocabulary input.

The greatest diversities between both groups have been found in the lexical fields of animals, food and personality traits. The topic of animals/pets has shown the greatest discrepancy with eight more types and 21 more tokens in favour of the non-CLIL sample. In the food-related field the non-CLIL informants have yielded three more types and three more tokens. As mentioned above, these results, we believe, might be explainable by the socioeconomic contexts where the two groups of testees are located: Bilbao, an essentially urban district, and Logroño, belonging to an agricultural wine region. This hypothesis seems to be supported by the fact that the Riojan subjects use 'wine' four times, while there is zero use among CLIL informants.

In the area of looks two more types have been elicited from the CLIL sample, while the non-CLIL informants have implemented 19 more tokens, data that disclose higher lexical variation among the former sample. In character trait description the CLIL sample has excelled with 5 more types and 14 more tokens. It could be speculated that the more frequent implementation of abstract characteristic terms by the CLIL group is the consequence of superior linguistic skills.

Recapitulating, we by no means attempt to offer a blueprint of what alterations should or should not be incorporated in L2 instruction, but from the gathered data emerges the conviction that EFL classroom vocabulary input should be revised. Non-CLIL subject number 159 gives us pause in regards vocabulary availability: she resorts to using Spanish when wanting to write about a traditional game for which she does not know the English equivalent term. In addition, in the area of professions a wider spectrum of terms appears to be needed. A cursory revision of the text books being in use at the time this test was administered confirms that from those sources participants could not have acquired sufficient vocabulary to write about their own sociocultural context (games, food, professions). We, therefore, would like to see classroom input that offers learners an adequate vocabulary that enables them to express aspects of their own culture, instead of mostly focusing on the target language cultural context.

Although this is only an exploratory study, our findings allow us to assert that, in spite of the fact that our CLIL subjects have demonstrated to be better than non-CLIL in receptive vocabulary (Jiménez Catalán & Ruiz de Zarobe, in this volume); to have higher lexical variation (Agustín Llach & Jiménez Catalán, 2007); and higher lexical richness (Moreno, in this volume), other learning factors should be taken into consideration. We postulate that variables such as the socioeconomic context may also have a fundamental influence on the acquisition of students' lexical competence.

The data in this chapter do offer empirical evidence that, when focusing on certain areas, the non-CLIL subjects, as a group, may show higher lexical richness. However, more research is needed to arrive at definitive conclusions in this respect.

Notes

1. We would like to acknowledge here the financial support of FEDER and the 'Ministerio de Ciencia y Tecnología' through grant HUM 2006-09775-C02-02.
2. In this study, we understand 'type' and 'token' following the definition of Richards *et al.* (2002: 391) of the *Longman Dictionary of Language Teaching & Applied Linguistics*: 'The class of linguistic units is called a type and examples or individual members of the class are called tokens'.
3. All the quotes from the compositions have been reproduced the way they were written without spelling or other corrections.

References

- Adler, P.A. and Kless, S.J. (1992) Socialization to gender roles: Popularity among elementary school boys and girls. *Sociology of Education* 65, 169–187.
- Agustín Llach, P. and Jiménez Catalán, R.M. (2007) Lexical reiteration in EFL young learners' essays: Does it relate to the type of instruction? *IJES* 7 (2), 85–103.
- Baayen, R.H. (2001) *Word Frequency Distributions*. Dordrech: Kluwer Academic Publishers.
- Baker, P. (2006) *Using Corpora in Discourse Analysis*. London: Continuum.
- Brinton, D.M., Snow, M.A. and Wesche, M. (2003) *Content-Based Second Language Instruction*. Ann Arbor: The University of Michigan Press.
- Bukowski, W.M., Newcomb, A.F. and Hoza, B. (1987) Friendship conceptions among early adolescents: A longitudinal study of stability and change. *The Journal of Early Adolescence* 7 (2), 143–152.
- Christenson, P.G. and Roberts, D.F. (1998) *It's not only Rock and Roll: Popular Music in the Lives of Adolescents*. Cresskill, NH: Hampton Press.
- Corsaro, W.A. (2003) *We're Friends Right?: Inside Kids' Culture*. Washington, DC: Joseph Henry Press.
- Crockett, L. (1984) Perceptions of the peer group and friendship in early adolescence. *The Journal of Early Adolescence* 4 (2), 155–181.
- Dalton-Puffer, C. and Smit, U. (eds) (2007) *Empirical Perspectives on CLIL Classroom Discourse*. Vienna: Peter Lang.
- Elkind, D. (1967) Egocentrism in adolescence. *Child Development* 38 (4), 1025–1034.
- Engber, C. (1995) The relationship of lexical proficiency to the quality of ESL compositions. *Journal of L2 Writing* 4 (2), 138–155.
- Fein, G.G. (1995) Toys and stories. In A.D. Pellegrini (ed.) *The Future of Play Theory* (pp. 151–165). Albany: University of New York Press.
- Finken, L.L. (2005) The role of consultants in adolescents' decision making. In J.E. Jacobs and P.A. Klaczynski (eds) *The Development of Judgment and Decision Making in Children and Adolescents*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Francis, W.N. and Kucera, H. (1982) *Frequency Analysis of English Usage: Lexicon and Grammar*. Boston: Houghton Mifflin.
- Harter, S. (1999) *The Construction of the Self: A Developmental Perspective*. New York: Guilford.

- Huizinga, J. (1950) *Homo Ludens: A Study of the Play Element in Culture*. Boston: Beacon.
- Inhelder, B. and Piaget, J. (1958) *The Growth of Logical Thinking*. New York: Basic Book.
- Laufer, B. and Nation, I.S.P. (1995) Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics* 16, 307–322.
- Lee, S. (2003) ESL learners' vocabulary use in writing and the effects of explicit vocabulary instruction. *System* 31, 537–561.
- Leech, G., Rayson, P. and Wilson, A. (2001) *Word Frequencies in Written and Spoken English*. London: Longman.
- Levesque, R. (2007) *Adolescents, Media and the Law*. Oxford: Oxford University Press.
- Malvern, D., Richards, B. and Duran, P. (2004) *Lexical Diversity and Language Development: Quantification and Assessment*. London: Palgrave, Macmillan.
- Marsh, D. and Marshland, B. (eds) (1999) *Learning with Languages*. Jyväskylä: University of Jyväskylä.
- Marsh, D. (2000) Using languages to learn and learning to use languages. On WWW at <http://www.ecml.at/mtp2/CLILmatrix/pdf/1UK.pdf>.
- Meara, P. (1987) *Vocabulary in a Second Language* (Vol. 2). London: Scottish Centre for Information on Language Teaching and Research.
- Mitchell, J.J. (1998) *The Natural Limitations of Youth: The Predispositions that Shape the Adolescent Character*. Stamford, CT: Ablex Publishing.
- Muñoz, C. (2001) Factores escolares e individuales en el aprendizaje formal de un idioma extranjero. In S.P. Cestero and V.S. García (eds) *E.L.U.A. Anexo 1*. Alicante: Universidad de Alicante.
- Nation, I.S.P. (1984) *Vocabulary Lists*. Wellington: Victoria University of Wellington, English Language Institute.
- Ojeda Alba, J. and Jiménez Catalán, R.M. (2007) The worlds children's words build. *Didáctica* 19, 155–172.
- Ojeda Alba, J. and Jiménez Catalán, R.M. (forthcoming) Vocabulary Selection in EFL Learners' Compositions: What Does it Reveal?
- Piaget, J. (1975) *Seis Estudios de Psicología* (Jordi Marfà, trans.). Barcelona: Barral Editores (original work published in 1964).
- Read, J. (1998) Measuring the vocabulary knowledge of second language learners. *RELC Journal* 19, 12–25.
- Richards, J.C. and Schmidt, R. (2002) *Longman Dictionary of Language Teaching and Applied Linguistics*. London: Longman.
- Roberts, D.F. and Christenson, P.G. (2001) Popular music in childhood and adolescence. In D.G. Singer and J.L. Singer (eds) *Handbook of Children and the Media* (pp. 395–414). Thousand Oaks, CA: Sage Publications Inc.
- Santrock, J.W. (2001) *Child Development*. New York: McGraw Hill.
- Schmitt, N. and McCarthy, M. (eds) (1997) *Vocabulary: Description, Acquisition and Pedagogy*. Cambridge: Cambridge University Press.
- Scott, M. (1996) Comparing corpora and identifying key words, collocations, and frequency distributions through the WordSmith Tools suite of computer programs. In M. Ghadessy and R.L. Roseberry (eds) *Small Corpus Studies and ELT*. Amsterdam: John Benjamins Publishing Company.
- Sebald, H. (1992) *Adolescence*. Upper Saddle River, NJ: Prentice Hall.
- Sinclair, J. McH. (1992) Priorities in discourse analysis. In Coulthard (ed.) *Advances in Spoken Discourse Analysis* (pp. 79–88). London: Routledge.
- Singleton, D. (1999) *Exploring the Second Language Mental Lexicon*. Cambridge: Cambridge University Press.
- Singleton, D. (2000) *Language and the Lexicon: An Introduction*. London: Oxford University Press.

- Stohler, U. (2006) The acquisition of knowledge in bilingual learning: An empirical study on the role of language in content learning. *Vienna English Working Papers (VIEWS)* 15 (3), 41–46.
- Sutton-Smith, B. (1986) *Toys as Culture*. New York: Gardner Press.
- Sylvén, L.K. (2006) How is extramural exposure to English among Swedish school students used in the CLIL classroom? *Vienna English Working Papers (VIEWS)* 15 (3 – Special Issue), 47–52. On WWW at http://www.univie.ac.at/Anglistik/views15_3_clil_special.pdf.
- Wilkins, D.A. (1972) *Linguistics in Language Teaching*. London: Edward Arnold.
- Ziková, V. (2008) CLIL at Grammar School. Diploma thesis. On WWW at http://is.muni.cz/th/80707/pedf_m/finish1_Veronika.pdf.

Chapter 9

Tense and Agreement Morphology in the Interlanguage of Basque/Spanish Bilinguals: CLIL versus non-CLIL

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Introduction

In recent years much effort has been devoted to the characterisation of the variability second or successive language learners typically show in their production (Lardiere, 1998a, 1998b, 2000; Prévost & White, 2000). Explanations differ as to what exactly causes variability, or why it is a persistent problem even in advanced stages of acquisition. The issue is closely linked to the debate about the extent to which the first language (L1) influences the second language (L2) and to whether Universal Grammar (UG) plays a role in L2 acquisition.

However, little research has been carried out on morphological variability in English as a foreign language (EFL) settings regarding the contrast between learners in Content and Language Integrated Learning (CLIL) programmes and those in regular EFL programmes (henceforth, non-CLIL programmes). CLIL programmes to optimise foreign language learning are becoming more and more popular in the school system of the Basque Country favoured by the successful results obtained in other European countries (Marsh, 2002; Marsh & Wolff, 2007) and boosted by the need learners have to speak at least one foreign language to become part of the present multilingual world.

This chapter explores how English tense and agreement morphology is acquired by bilingual (Basque–Spanish) speakers differing in the type of programme they follow at school: a CLIL programme versus a non-CLIL one. Based on the analysis of our learners’ oral production and following

claims put forward by other researchers, we will argue that our learners' interlanguage (ILG) has functional categories and that problems realising verbal inflection come from difficulties acquiring the morphological realization of such morphemes or from some type of mapping problem from abstract to specific features. Besides, we will try to explain the difference in suppliance found between *be* forms and affixal morphemes, attributing the more accurate inflection of *be* forms to the universal rule that guides overt movement.

The rest of the chapter is structured as follows. The first section provides some background to both the origin of CLIL programmes and more specifically to CLIL programmes in the Basque Country and to the main theories that try to cast some light on the variation of tense and agreement in L2 acquisition. The second section presents the hypotheses and the third the methodology of the study and its participants. The fourth section presents the results from the oral task and the fifth discusses the results. The last section presents the conclusions and future research lines.

Background

CLIL programmes

CLIL programmes in Europe

The term CLIL emerged in the 1990s as an umbrella acronym that defined a continuum in which both language and content were included and in which neither of them was preferred intrinsically (Marsh, 2002). Thus, CLIL offered cover to different models that were implemented in Europe and which varied on the emphasis given to language or content (Coyle, 2007). CLIL was '[...] a pragmatic *European solution to an European need*' (Marsh, 2002: 11), a need '[...] to support and develop a plurilingual and pluricultural competence in our future citizens' (Coyle, 2002: 27) but in a non-conventional way: both the learning of a content subject and the learning of an additional language were combined and stressed. CLIL programmes have been implemented to learn languages with different status such as minority languages, L2s or foreign languages. Muñoz (2003) claims that one advantage of implementing CLIL programmes in foreign language contexts is that there would be an increase in the number of hour of exposure to the foreign language, which will be used in comprehensible ways and with authentic purposes.

In the late 1990s, research started to show that in certain contexts CLIL programmes seemed to raise learners' linguistic competence (Coyle, 2007), which reached higher levels than in non-CLIL programmes (Wolff, 2002). These results are similar to those in Canadian immersion studies in which better results are also reported for the learners in immersion programmes (Genesee, 2006). However, as recently pointed out by Van de Craen *et al.* (2007), more detailed research is needed because the potential

benefits of CLIL programmes are not so clear-cut. Two recent reports on the oral production of CLIL versus non-CLIL learners (also using Mayer's (1969) picture story *Frog, where are you?* as in the present study) attest to this: Ruiz de Zarobe (2007) analysed the oral production of 24 secondary Basque-Spanish bilingual students learning English in a Basque School through CLIL and compared it to non-CLIL learners. She measured their overall oral proficiency observing five categories (pronunciation, vocabulary, grammar, fluency and content) and concluded that there were no overall significant differences between the two groups. Hüttner and Rieder-Bünemann (2007), however, looked at the macro and micro-level production of 44 (aged 12) learners at two secondary schools in Vienna contrasting the programmes they follow at school a CLIL versus non-CLIL group. The CLIL learners had received instruction through English for seven years at the time of the study. The study concluded that the CLIL group had a perceptible advantage over the command of the micro-level features of the narrative (anchor tense consistency and correct use of verbal forms) and over some macro-level features (referring to plot elements). The overall results pointed to an advantage of the CLIL group over the non-CLIL one.

CLIL programmes in the Basque Country

The teaching of languages through a content subject has a very old tradition in the Basque Country and in other European areas such as Catalonia or Wales (Artigal, 1993; Baker, 2001). In 1982, when the *Basic Law on the Standardisation of Basque* was passed, every student's right to be taught in Basque or Spanish was recognized and three linguistic models were established (Lasagabaster, 2001): (1) Model A in which all subjects were taught in Spanish but the Basque language; (2) Model B in which more or less 50% of the subjects were taught through Basque; and (3) Model D in which all the subjects but the Spanish language were taught through Basque. Model B and D mirrored the partial and total immersion programmes in Canada (respectively) for learners whose L1 was Spanish in Model D, whereas if the learners' L1 was Basque this was more of a maintenance programme. Although Model A was the most popular in 1983 (72.8% of students), the picture has changed over the past 20 years and at present Model D is the most popular (53% of students). Research has consistently demonstrated that Model D students are the only ones who can reach balanced bilingualism (Gabiña *et al.*, 1986).

Drawing from their own results from Spanish-born children who were early immersed in Basque-only schools and obtained Basque proficiency levels similar to Basque-born children and on the 'Early Double Immersion Program' (Genesse *et al.*, 1978), which was successfully implemented after age four in Canada and the United States, in 1991 the Confederation of *Ikastolak* (the main private sector of Basque education) started a project

that, besides the early introduction of the English language (age four), it also considered the teaching of curricular subjects through a foreign language (English) until compulsory secondary education was over (age 16). They had to ensure, however, that this early introduction of English would not negatively affect the two languages that were already part of the reality of the Basque Country: Basque and Spanish, and more specifically Basque due to its minority language status.

Previous studies (Gabiña *et al.*, 1986; Sierra, 1996) had claimed that there was a positive relation between the time devoted to Basque and its proficiency (Cenoz, 1998). Yet, the *ikastolak* were aware of the fact that a mere early introduction to English as a subject was not enough to ensure that at the end of compulsory secondary education the learners would be able to carry out everyday communication in English both orally and in writing (Muñoz, 2003). Therefore, they designed the so-called 'English-multilingual program' in which learners from four to 16 years would be involved. This programme included an early introduction to English and the teaching of at least one content subject through the English language.

In a 2003 report the multilingual-English group of the *ikastolak* (IEEIT, 2003) compared an experimental group (EG) that started learning English at age four and had had a year of Social Sciences in English to a control group (CG) that started learning English at the age of eight and studied Social Sciences in Basque. Their results demonstrated that the EG obtained better results than the CG both in the English proficiency tests and in the test that measured content knowledge, even though the test was carried out in Basque and the EG had studied Social Sciences in English.

Moved by the positive results reported by the private schools, the Department of Education, University and Investigation (DEUI) of the Basque Government has also encouraged the teaching of curricular subjects through foreign languages, mainly through English, beginning in 2003–2004. In order to test the effectiveness of CLIL programmes, the DEUI compared CLIL and non-CLIL groups at two points in time in compulsory (ages 13–16) and optional (16–18) secondary education (ISEI-IVEI, 2007). The findings show that the CLIL groups obtained overall better results than the non-CLIL groups in oral and written production and comprehension. Besides, the study claims that the content knowledge acquired does not decrease when the teaching is carried out through the English language, and that the level is similar to that obtained by the non-CLIL groups who are taught either through Basque or Spanish, depending on the linguistic model they are in.

However, little fine-grained research on specific grammatical areas has been carried out so far in the Basque context regarding the performance of CLIL versus non-CLIL learners (but see Martínez Adrián & Gutierrez Mangado, this volume).¹ The current chapter is an attempt to contribute to

this theme focusing on one particular aspect of the acquisition of English grammar: the realization of tense and agreement morphology.

Tense and agreement in non-native language acquisition

It is a well-attested phenomenon that L2 learners show variability in the production of the target language morphology. L2 learners produce verbal forms that lack inflectional morphology such as tense or agreement markers. Theories attempting to ascertain the source of such variation can be collapsed into two main approaches: those attributing this variability or optionality to impaired functional categories or features associated with such categories (Franceschina, 2001; Hawkins & Chan, 1997; Meisel, 1991), and those who relate this variability not to the lack of abstract categories or feature representations but to problems mapping abstract features into their corresponding surface morphological forms or to problems with the specifications of such features (Epstein *et al.*, 1996; Haznedar & Schwartz, 1997; Herschensohn, 2001; Ionin & Wexler, 2002; Lardiere, 1998a, 1998b, 2000; Prévost & White, 2000).

Among those who defend the claim that functional categories and/or functional features are somehow impaired, Meisel (1991) assumes a global impairment based on research in L2 German in which non-finite forms were frequently produced in finite positions and vice versa. Thus, he concluded that UG is no longer involved and that finiteness distinctions were not there in L2 acquisition, assuming a global impairment in the domain of abstract features. A more local kind of impairment is defended by exponents of the *Failed Functional Features Hypothesis* (Franceschina, 2001; Hawkins & Chan, 1997) also known as the *Representational Deficit Hypothesis* (Hawkins, 2003), who maintain that native language values of functional features are available for L2 acquisition throughout the entire life. Parameterized L2 features, however, cannot be reset to a value that is not present in their L1 if the L2 learning has occurred after the critical period. Thus, those parameterized L2 values that differ from the values set for L1 will never be acquired, yielding persistent surface morphological variability.

Conversely, other researchers found evidence to the contrary (Haznedar, 2001; Lardiere, 1998a, 1998b; Prévost & White, 2000) and maintain that these L2 learners have knowledge of morphological and syntactic properties. Prévost and White (2000), following Haznedar and Schwartz (1997), labelled this view the *Missing Surface Inflection Hypothesis* (MSIH). Under this view, L2 learners have abstract features for finiteness and agreement in their ILG representation, but sometimes they exhibit problems with the realisation of particular items and resort to default forms. Verbal morphology, however, when used is systematic, thus suggesting that there is no impairment at an abstract level. Lardiere (2000) concludes that more than

a certain type of impairment, learners have ‘mapping problems’ between abstract features and surface forms.

Hypotheses

Based on the findings from previous research carried out comparing students who differ in the type of programme they follow at school, CLIL versus non-CLIL, as well as on research concerning the characterization of finiteness in L2 acquisition, we entertain the following hypotheses:

- (1) The English of our participants is not impaired at the level of abstract categories or features underlying finiteness (Haznedar & Schwartz, 1997; Ionin & Wexler, 2002; Lardiere, 1998a, 1998b, 2000; Prévost & White, 2000). Thus, we expect more errors of omission than of commission.
- (2) Tense and agreement will be instantiated earlier in suppletive forms than in affixal forms (Zobl & Liceras, 1994). Thus, we predict that the number of inflected suppletive (auxiliary and copula *be*) forms will significantly exceed the affixally inflected (*-s* and *-ed*) forms.
- (3) The participants in the CLIL programme will obtain better results than the ones in the non-CLIL programme (Genesee, 2006). Thus, we expect to observe that the accurately inflected verb forms are significantly more frequent in the ILG of CLIL learners than in non-CLIL learners.

Methodology

Participants

Fifty-six age-matched teenagers (15–16 years old) took part in this study. All of them were in their fourth and last year of compulsory education. They attended three different high schools in the Basque Country, two in Gipuzkoa (AL and GL) and one in Bizkaia (AR), where Basque was used as the main language for instruction. All of the participants were fully bilingual in Basque and Spanish and were learning English as their L3.

Table 9.1 provides information about the participants in this study. All of them started learning English at school when they were eight years old. Nevertheless, we can divide the participants into two groups on the basis of the English programme they followed.

Thus, the 29 participants who attended GL received three hours of English per week, which means that, after eight years, they had received 792 hours of English instruction. Moreover, these participants did not receive any extra-English classes outside school. We refer to this group as the non-CLIL group (non-CLILG).

Table 9.1 Participating schools and number of students

<i>Group name</i>	<i>School</i>	<i>Number of students</i>	<i>English hours at school</i>	<i>CLIL</i>	<i>Extra-English classes</i>
CLIL group	AR	15	1155	yes	yes
	AL	12	1120	yes	yes
Non-CLIL group	GL	29	792	no	none

The second group is made up of 27 students from two different high schools, AR (16) and AL (12). These participants have had English as a school subject three hours per week as well during six years. When they were 14 they entered a CLIL programme, in which a curricular subject (which varied depending on the school) was taught through English for three or four hours per week. Overall, and up to the point of data collection, the informants coming from these high schools had had from 1120 to 1155 hours of classroom exposure (including their regular English classes and the CLIL classes). We refer to this group as the CLIL group (CLILG). Unlike in the first group, we could not control for the ‘extra-English’ variable—most learners (78%) attended English classes after school. As we were aware of the problem that this extra input can cause for the interpretation of our results, we performed a correlation to see if a higher amount of extra hours of exposure in English was correlated with significant better results in the different measures.² The statistical tests showed that the number of hours per se was not a good predictor for the overall performance of the participants in the two groups.

Data collection

In order to collect the data, each informant was asked to tell Mayer’s well-known picture-story ‘Frog, where are you?’ (Mayer, 1969) individually. The recordings were carried out in the high schools they attended and the participants were guided by a trilingual (Basque, Spanish and English) researcher who helped them with lexical items they did not know or could not retrieve at the moment of the recording. The researcher always addressed the participants in English, although she answered all the questions raised by the participants even if they were produced in Basque or Spanish. All recordings were audio-taped and later transcribed using the CHILDES programme (MacWhinney, 2000).

Regarding analysable verbal utterances, we followed Ionin and Wexler (2002: 105) and counted as an ‘analysable verbal utterance’ any utterance containing a finite verb, a non-finite verb or a missing copula,

as well as an overt or null subject. We eliminated the following from the counting:

- (a) All formulaic utterances such as *how do you say X?* or *I don't know* because they can be considered chunks or rote-learned material (Myles, 2004).
- (b) Repetitions of adult speech such as the one illustrated in (1) – where CHI stands for the participant and INV for the investigator – when the repeated part was a verb:
 - (1) CHI: # encontró
 found
 INV: find
 CHI: find a bee bee house
- (c) Utterances containing portions of direct speech (*he say be quiet*).
- (d) Repetitions of the same utterance such as (2) where only the last occurrence was counted:
 - (2) ... *but they don't look nothing, osea* (I mean) *they don't look nothing,*
- (e) Any utterance that was interrupted at verb level like (3) or not comprehensible like (4):
 - (3) *they find a deer which is...*
 - (4) ...*eeeh it is eeeh on xxx into the wood wood*
- (f) Any utterance containing a verb form that did not require a change to the stem when the tense was modified such as (5)
 - (5) ... *when he saw it he put on her his clothes*
- (g) Any irregular verb form in the past (example (6)), as, according to models like the *dual-mechanism model* (Pinker & Prince, 1992), regular and irregular verb forms are processed through two distinct systems: regulars through a rule-governed system, and irregular through an associative memory system. Irregular present forms requiring the third person present -s are included (see example (7)) as well as instances in which the past form is used as the base form to add regular inflection such as the third person -s (example (8)) or even the past -ed (example (9)):
 - (6) # *he went to the street*
 - (7) *and the deer eh throws the boy to a to a lake (Cb3)*
 - (8) *and he tooks the frog (Eb28)*
 - (9) *and he founded the frog with his family (Cb27)*

Results

Morpheme omission

We first analyse the omission rate of verbal inflectional morphemes in obligatory contexts. By obligatory context we mean any context in which

a native adult speaker would use an inflectional morpheme. These are the four morphemes under analysis:

- (a) third person *-s*
- (b) past tense *-ed*
- (c) auxiliary *be*
- (d) copula *be*

Table 9.2 features the proportion of morpheme omission in the two groups. We found that in suppletive forms (auxiliary and copula *be*) the omission was related to an absence of the copula and auxiliary *be* and not to the use of a non-finite *be* form (cf. Ionin & Wexler, 2002). Indeed, no instance of non-finite *be* was found in the corpus. Only regular verbs and person forms are included in the analysis. The rationale was the need to compare truly affixal forms that did not require a change to the stem, against truly suppletive forms (auxiliary *be* and copula *be*) (Ionin & Wexler, 2002: 105).

Table 9.2 shows that the omission rate is very high in the two affixal inflections, third person singular *-s* and past tense *-ed*, across the two groups. The CLILG omits the third person *-s* in 82 obligatory contexts (44.32%), whereas the non-CLILG shows a much higher omission rate, 161 (73.85%). As for the past tense *-ed* inflection, although the omission frequency is lower than that for the *-s*, it is still high. The CLILG omits the *-ed* morpheme in 56 contexts (41.17%); the non-CLILG, on the other hand, omits the past *-ed* in 26 out of the 41 contexts (63.41%).

As far as suppletive inflection is concerned, the omission rate is very low, and the two groups feature a parallel behaviour. The CLILG omits auxiliary *be* twice (2.59%), whereas the non-CLILG omits it three times (3.12%). Copula *be* is also omitted very rarely: the non-CLIL 2.18% and the CLIL 0.68%.

Table 9.2 Number and percentage of omission of inflection in obligatory contexts

<i>Morphemes</i>	<i>CLIL group</i>		<i>Non-CLIL group</i>	
	<i>Number of omission</i>	<i>Percentage of omission</i>	<i>Number of omission</i>	<i>Percentage of omission</i>
Third sing <i>-s</i>	82/185	44.32%	161/218	73.85%
Past tense <i>-ed</i>	56/136	41.17%	26/41	63.41%
BE auxiliary	2/77	2.59%	3/96	3.12%
BE copula	1/145	0.68%	3/137	2.18%
All inflection	141/543	25.96%	193/492	39.22%

The following examples illustrate the typical omissions made by participants in the two groups (the codes after each utterance refer to different individuals in the database):

- (a) third person singular *-s*
 - (10) # now he he open the window (Eb11)
 - (11) the next morning the boy see that the frog has escaped (Cb16)
- (b) past tense *-ed*
 - (12) ... after that he went to the wood and he start finding o sea (that is) looking for the frog (Eb21)
 - (13) when the reindeer stop the dog and the boy fell into a lake (Cb8)
- (c) auxiliary *Be*
 - (14) the owl behind going behind the # the boy (Eb8)
 - (15) in the next picture the dog following the boy (Cb5)
- (d) copula *Be*
 - (16) Albert didn't know where the frog (Eb1)
 - (17) # then # then eh the boy scare (Cb13)

In order to check whether the two affixal morphemes (*-s* and *-ed*) taken together behaved differently from the suppletive forms (copula and auxiliary *be*), we performed a one-sample unilateral binomial test for *-s* and *-ed* conditioned on the value for *copula* and *auxiliary* (3/222 for CLIL and 6/233 for non-CLIL). In the CLILG, the results showed that the proportion with which the affixal inflection is omitted is larger than that of the suppletive inflection ($t = 64.61$; $p < 0.0001$). This is also true of the non-CLILG, where affixal inflection omission rate is significantly higher than that of suppletive inflection ($t = 70.74$; $p < 0.0001$). Therefore, both groups show a parallel performance when omitting affixal and suppletive inflection: affixal inflection is omitted significantly more than suppletive inflection is, suggesting that a different mechanism might be at work.

In order to look at the affixal morphemes in both groups in more detail, we used a one-sample bilateral binomial test for *-ed* conditioned on the value for *-s* (82/185 for CLIL and 161/218 for non-CLIL). The results for the CLILG showed that the proportion of omitted *-s* morphemes is equal to the omitted *-ed* morphemes ($t = 0.74$; $p = 0.46$). That is to say, the omission rate of the third sing *-s* and past *-ed* is similar, and thus, no significant differences are found, suggesting that both morphemes are treated in a similar way by the CLILG. The same is true for the non-CLILG ($t = 1.52$; $p = 0.13$) where both morphemes are also omitted with the same frequency. Thus, both groups taken independently show a parallel behaviour regarding affixal inflection, the same omission rate for both morphemes, which suggests that both *-s* and *-ed* are comparable as regards their omission and are treated in the same way in the ILG of all our learners irrespective of the group they belong to.

Finally, to see if both copula and auxiliary *be* behaved in the same way in each group, we used a one-sample bilateral binomial test for the copula conditioned on the value for the auxiliary (2/77 for CLIL and 3/96 for non-CLIL). The results from both groups showed that the proportion with which the copula *be* is omitted is statistically equal to the one for auxiliary *be* ($t = 1.44$; $p = 0.15$ for CLIL and $t = 0.63$; $p = 0.53$ for non-CLIL). Thus, these two suppletive forms are omitted with the same frequency and form a group distinct from that formed by affixal inflection as observed in the ILG of our participants.

To test our third hypothesis, we compared the performance of the CLILG against that of the non-CLILG regarding the omission of inflection. We compared the omission rate of the suppletive forms in CLIL versus non-CLIL and no significant difference was observed between the omission of copular and auxiliary *be* ($t = 0.94$; $p = 0.35$), thus suggesting a parallel behaviour in both groups. When the omission proportion of each suppletive form in CLIL was compared individually against the proportion in non-CLIL, no significant differences were found either (auxiliary *be*, $t = 0.21$; $p = 0.84$ and copula *be*, $t = 1.06$; $p = 0.29$). Both groups then show the same low-omission rate for the two suppletive forms.

We followed the same procedure for affixal *-s* and *-ed* inflection and found, however, different results. First, we compared CLIL versus non-CLIL when both affixal morphemes are taken together. The results indicated that the proportion of omitted *-s* and *-ed* in the non-CLILG is significantly higher than that of the CLILG ($t = 7.05$; $p < 0.0001$). Thus, the CLILG omits significantly less *-s* and *-ed* than the non-CLILG. To test if this was true for each morpheme, we carried out a two-sample unilateral binomial test for each morpheme, and once again the results showed that the non-CLILG omitted a significantly higher proportion of both *-s* ($t = 6.04$; $p < 0.0001$) and *-ed* ($t = 2.50$; $p = 0.0061$) morphemes. The CLILG omits significantly less affixal inflection than the non-CLILG and shows a more target-like performance. Our results show that the CLILG features a more target-like performance regarding affixal inflection than the non-CLILG in this oral task.

Agreement and tense errors

We also considered the instances of inflectional errors produced by our participants. These are the type of errors we looked at:

- (a) The use of third person singular *-s* with any subject other than third person singular.
- (b) The use of a *be* form for inappropriate person or number.

Ionin and Wexler (2002) also computed the production errors of the past tense morpheme *-ed* uttered in non-past contexts as well as the use of

Table 9.3 Number and percentage of errors of inflection in obligatory contexts

<i>Morphemes</i>	<i>CLIL Group</i>		<i>Non-CLIL group</i>	
	<i>Number of errors</i>	<i>Percentage of errors</i>	<i>Number of errors</i>	<i>Percentage of errors</i>
Third sing -s	2/185	1.08%	2/218	0.91%
BE auxiliary	0/77	0%	2/96	2.08%
BE copula	2/145	1.37%	6/137	4.37%
All inflection	4/407	0.98%	10/451	2.21%

a *be* form for inappropriate tense (2002: 206) in addition to the two error types listed above. However, we had to exclude these variables from our oral data computation since the task they were asked to perform, the narration of the frog story, makes it very difficult to decide in certain contexts whether the intended verb was present or past (see Lardiere, 2007: 235).

Table 9.3 shows the number and percentage of errors made by the participants of the two groups, which seem to behave alike: the number of commission errors is very low, and in some cases non-existent.

Looking at the number of errors committed when using the third person -s, both groups use the -s affix wrongly twice (1.08% for CLIL and 0.91% for non-CLIL) Not a single instance of the auxiliary form is produced incorrectly by the CLILG and the non-CLILG commits only two errors (2.08% of the total possible contexts). As for the copula *be*, two errors (1.37%) are produced by the CLILG, whereas the non-CLILG produces six incorrect copula forms (4.37%).

Examples (18)–(20) illustrate some of the few errors made by our participants:

- (a) Use of -s with a subject other than third singular.
(18) *and the birds eh goes to the to anywhere (Cb1)
- (b) The use of auxiliary *be* for inappropriate person or number.
(19) Toby are playing with a *colmena* (beehive) (Eb27)
- (c) The use of copula *be* for inappropriate person or number.
(20) *when they when they is in the lake (Eb7)

Discussion

The results obtained from the participants' oral production show that, although morpheme omission is high across the two groups when affixal morphemes are used, errors are almost non-existent. Besides, omission is extremely rare with copula and auxiliary *be* (3 out of 222 for CLIL and 6

out of 233 for non-CLIL contexts where a suppletive form was required), and only ten errors are made when inflecting them (2 out of 222 contexts for CLIL and 8 out of 233 for non-CLIL). If, as claimed by many researchers (Franceschina, 2001; Hawkins & Chan, 1997; Meisel, 1991), our participants would have had any type of impairment at any level, we would expect a much higher incidence of errors such as person or tense mismatches.³ Nonetheless, only four errors out of 407 contexts for the CLILG and 10 instances out of 451 contexts for the non-CLILG are produced. Our findings support the claim that the ILG of these participants is not impaired at an abstract level, but rather, it is subject to a more superficial problem '[...] a problem with just realizing the morphological form of finite verbs' (Haznedar & Schwartz, 1997: 266), which could be attributable to performance pressure (Prévost & White, 2000).

Moreover, the data we gathered showed that errors are not representative of the ILG of any of our groups. Even though the percentage of omission is higher for the non-CLILG, both groups behave alike with respect to errors, that is, they hardly produce any. Thus, it seems that the acquisition of the relevant target abstract finiteness features is independent of the programme they follow at school, that is to say, independent of an increase in the number of hours and the teaching of content through the target language. Therefore, our first hypothesis is confirmed since both groups demonstrate to have abstract knowledge of English finiteness.

With respect to our second hypothesis, which claims that suppletive inflection does not behave as affixal inflection does, and that the first one appears chronologically earlier than the second one, we observe that this seems to be the case. Due to the cross-sectional nature of the corpus analysed, we cannot claim that in the oral production of our participants auxiliary and copula *be* inflection appear earlier than affixal inflection. However, we can claim that the frequency with which suppletive forms are inflected in a target-like manner is significantly higher than the frequency with which lexical verbs are. Thus, we can claim that an almost target-like use of auxiliary and copula *be* comes earlier than that of affixal inflection. The various statistical analyses we have carried out confirmed that even though *-s* omission was higher than *-ed* omission, these two verbal endings functioned differently from copula or auxiliary *be*.

As we have observed, our non-native language learners do show a high omission of affixal inflection. But, why is it that they resort to this omission strategy? Why do they omit affixal inflection but hardly omit any suppletive inflection? A possible alternative to explain such variability is put forward by Ionin and Wexler (2002) extending to L2 acquisition Guasti and Rizzi's (2002) L1 acquisition proposal on morphological feature expression. Guasti and Rizzi (2002: 189) suggest that:

if a morphosyntactic feature is checked in the overt syntax, it is expressed by the morphology [...]; if a feature is left unchecked in the

overt syntax [...], then UG offers no guidance as to its morphological expression: whether it is realized or not is a matter of a language-specific morphological rule, a property which may vary across closely related systems and fluctuate within the same system.

Guasti and Rizzi (2002) claim that the UG-based rule governing morphological expression of overtly checked features is fully available to children acquiring their L1, unlike the language-specific rules governing expression of covertly checked features that take children a long time to acquire. Ionin and Wexler (2002) extend this analysis to child L2 English acquisition and claim that L2 learners behave as L1 learners regarding full UG access. They know the UG-based rule which requires that overtly checked features be expressed morphologically and that idiosyncratic rules constraining covertly checked features lengthen the time of acquisition. Therefore, L2 learners know that *be* forms must be morphologically inflected, whereas they have not yet '[...] mastered the English-specific rule requiring agreement morphology on unraised lexical verbs in certain contexts (i.e. for 3rd person present-tense singular, and past tense)' (Ionin & Wexler, 2002: 118). Indeed, this is what we have found in our corpus. Our participants exhibit problems with the realization of affixal *-s* and *-ed*, which are claimed to raise covertly at Logical Form. This lack of uniformity when using affixal inflection could be attributed to the fact that '[...] whether a feature is morphologically expressed or not [...] is a property of the language-specific system of morphological rules' (Guasti & Rizzi, 2002: 178). In this case the language-specific rules of English establish that third person *-s* and past tense *-ed* be marked but, since this is not UG constrained, the acquisition of such idiosyncratic rule is prolonged. Conversely, suppletive forms are almost always appropriately inflected, since these forms are predicted to raise overtly and are therefore UG constrained. UG requires that overtly moved forms be marked and *be* is the only English verb with person distinctions in present and past.

Our third hypothesis, which predicted that the CLILG would perform more accurately than the non-CLILG, is also born out. The different nature of the two types of verbal inflection (affixal and suppletive) is reflected in the omission rate of both groups. Therefore, the differences among the CLILG and the non-CLILG arise when affixal inflection is compared. A parallel suppliance is observed in the two groups when suppletive inflection is analysed, though. The reason lying behind this asymmetry can easily be explained adopting Guasti and Rizzi's (2002) suggestion: suppletive inflection is expected to be supplied in parallel percentages in both groups, since its marking is claimed to be UG constrained and our participants can access it independently of the amount of exposure or the exposure type they have had. Thus, both groups are predicted to behave in the same way regarding suppletive forms, and indeed this is what they do. As for affixal

inflection both groups had a different behaviour when affixal omission was compared altogether with the non-CLILG omitting significantly more affixal verbal morphemes than the CLILG ($t = 7.05\%$; $p < 0.0001$). This was also true when the two groups were compared for each affixal morpheme: the non-CLILG behaves differently from the CLILG omitting significantly more *-s* ($t = 6.04$; $p < 0.0001$) and *-ed* ($t = 2.50$; $p = 0.0061$) morphemes than the CLILG.

Conclusion

This chapter has analysed the oral production of 56 bilingual (Basque/Spanish) English learners distributed in a CLIL and a non-CLIL programme with regard to their production of tense and agreement markers. Our findings show that, independently of the group they belong to, the participants do not have impaired categories or features, but, rather, a problem realising them overtly (Prévost & White, 2000) or a problem with the acquisition of the language-specific rules governing the morphological marking of covertly moved elements (Ionin & Wexler, 2002). In line with previous studies (Ionin & Wexler, 2002; Zobl & Liceras, 1994), a target-like realisation of verbal inflection is observed earlier in suppletive forms than in affixal forms. Finally, regarding the overall performance of the two groups, the CLILG outperforms the non-CLILG in the production of affixal morphemes. Suppletive forms, however, are supplied in a parallel fashion, as expected if we assume that this type of suppliance is UG guided.

The findings support the idea that finiteness features are present in the ILG of our participants in the course of language acquisition. Since they have been learning English at school since they were eight, we cannot say that functional categories are available since the initial stages of acquisition, but we can claim, however, that they are available throughout the language acquisition process. This can be observed in the very few finiteness errors our participants committed when narrating the story. Under an impairment approach many more tense and agreement mismatches would have been expected, since there is no target-like mechanism constraining the suppliance of verbal morphology. Nonetheless, rather than errors what we observe is a high rate of omission of verbal endings, which is more in line with proposals for the lack of knowledge of the language-specific rules governing covertly raised verbs (Guasti & Rizzi, 2002; Ionin & Wexler, 2002).

Finally, we have concluded that the CLILG performed significantly better than the non-CLILG when affixal inflection was analysed. Thus, our results are in line with previous studies (Genesee, 2006; Hüttner & Rieder-Bünemann, 2007) advocating for the benefits of using the language as the means of instruction rather as just the goal of instruction. It seems that a CLIL programme is also beneficial for our secondary-level learners as their

overall performance regarding affixal inflection is more target like than that of the learners in the non-CLIL programme, even when the CLIL learners had only received two years of content teaching through English.

These results, though encouraging, also lead us to further question, on the one hand, the longitudinal benefits that a CLIL programme may have. Will these significant differences be observed in the long-run? Or will the non-CLIL learners eventually catch up? On the other hand, will the suppletive/affixal asymmetry still be found in the non-native acquisition of a highly inflected language such as Spanish and Basque? These and other questions remain to be addressed in future studies.

Acknowledgements

This study is part of a larger project carried out under research grants HUM2006-09775-C02-01 (Spanish Ministry of Science and Technology), 9/UPV.00130-13578/2001 (University of the Basque Country) and IT-202-07 (Basque Government – Department of Education, University and Research). Those grants are hereby gratefully acknowledged. The first author wants to acknowledge a pre-doctoral grant and the second author the research grant CSD2007-00012 (Consolider-Ingenio, 2010), both awarded by the Spanish Ministry of Education. A previous version of this paper was presented at *GLOBE 2006: Communicating Across Age Groups: Age, Language and Society* in Warsaw, Poland (21–23 September, 2006), at the 6th International Symposium on Bilingualism in Hamburg, *ISB6*, Germany (May 30–June 2, 2007) and at *EUROSLA 17* (Newcastle-upon-Tyne, 11–14 September, 2007) and we thank the audiences there for useful comments. Thanks also go to Vicente Núñez Antón (Department of Econometrics and Statistics, University of the Basque Country) for the statistical analysis of the data. All errors remain our responsibility.

Notes

1. For studies on L3 English morphosyntax of functionally bilingual (Basque-Spanish) learners, see García Mayo *et al.*, 2005, 2006; Gutierrez Mangado & García Mayo, 2008; Perales Haya, 2004.
2. The measures were the following: the grammar and listening parts of the Oxford Placement Test (Allan, 1992), and five measures used to evaluate the participants' oral performance in the narration task (pronunciation, vocabulary, grammar, fluency and content). The evaluations for the last five measures were carried out by two independent judges, and a mean of these two measures was used to run the correlation. The mean amount of extra classes was 445.92 hours with a standard deviation of 327.55 and a range of 0–1015 hours. As indicated by the Pearson indexes obtained, results showed that a higher amount of extra English classes was not related to better results in any of the seven measures we took into account (mean pronunciation $r = 0.071$, $p = 0.071$; mean vocabulary $r = -0.002$, $p = 0.992$; mean grammar $r = 0.069$, $p = 0.734$;

- mean fluency $r = 0.187$, $p = 0.350$; mean content $r = 0.032$, $p = 0.874$; Oxford Placement Test Grammar $r = 0.320$, $p = 0.104$ and listening $r = 0.177$, $p = 0.377$).
3. Hawkins and Chan (1997) and Franceschina (2001) predict that learners of certain L1s when learning an L2 will have impaired features. This is not the prediction for our participants since both Basque and Spanish have subject-verb agreement and mark main verbs for tense. Nonetheless, the Failed Functional Features Hypothesis cannot account for the distribution of forms that we have found (Roger Hawkins, p.c. January 2007).

References

- Allan, D. (1992) *Oxford Placement Test*. Oxford: Oxford University Press.
- Artigal, J.M. (1993) Catalan and Basque immersion programmes. In H. Baetens Beardsmore (ed.) *European Models of Bilingual Education*. Clevedon: Multilingual Matters.
- Baker, C. (2001) Welsh in Great Britain. In G. Extra and D. Gorter (eds) *The Other Languages of Europe* (pp. 59–81). Clevedon: Multilingual Matters.
- Cenoz, J. (1998) Multilingual education in the Basque Country. In J. Cenoz and F. Genesee (eds) *Beyond Bilingualism: Multilingualism and Multilingual Education* (pp. 175–191). Clevedon: Multilingual Matters.
- Coyle, D. (2002) Relevance of CLIL to the European Commission's language learning objectives. In D. Marsh (ed.) *CLIL/EMILE – The European Dimension: Actions, Trends and Foresight Potential* (pp. 27–28). DG EAC, European Commission. University of Jyväskylä.
- Coyle, D. (2007) Content and language integrated learning: Toward a connected research agenda for CLIL pedagogies. *The International Journal of Bilingual Education and Bilingualism* 10, 543–562.
- Epstein, S., Flynn, S. and Martohardjono, G. (1996) Second language acquisition: Theoretical and experimental issues in contemporary research. *Brain and Behavioral Sciences* 19, 677–714.
- Franceschina, F. (2001) Morphological or syntactic deficits in near-native speakers? An assessment of some current proposals. *Second Language Research* 17, 213–247.
- Gabiña, J.J., Gorostidi, R. and Iruretagoiena, E. (1986) *EIFE-1 Euskararen irakaskuntza: faktoreen eragina*. Vitoria-Gasteiz: Central Publications of the Basque Government.
- García Mayo, M.P., Lázaro Ibarrola, A. and Licerias, J.M. (2005) Placeholders in the English interlanguage of bilingual (Basque–Spanish) children. *Language Learning* 55 (3), 445–489.
- García Mayo, M.P., Lázaro Ibarrola, A. and Licerias, J.M. (2006) Agreement in the English interlanguage of Basque/Spanish bilinguals: A minimalist farewell to pro. *ITL: International Journal of Applied Linguistics* 151, 83–98.
- Genesee, F. (2006) Una revisió del programes d'immersió en francès al Canada. *Quaderns D'Avaluació* 6, 56–77.
- Genesee, F., Tucker, G.R. and Lambert, W.E. (1978) An experiment in trilingual education. *Canadian Modern Language Review/Revue-canadienne-des-langues-vivantes* 34 (2), 621–643.
- Guasti, M.T. and Rizzi, L. (2002) Agreement and tense as distinct syntactic positions: Evidence from acquisition. In G. Cinque (ed.) *Functional structure in DP and IP* (pp. 167–194). Oxford: Oxford University Press.
- Gutierrez Mangado, J. and García Mayo, M.P. (2008) Non-adult long-distance wh-question in the non-native acquisition of English. In C. Pérez-Vidal, M. Juan-Garau and A. Bell (eds) *A Portrait of the Young in the New Multilingual Spain* (pp. 264–286). Clevedon: Multilingual Matters.

- Hawkins, R. (2003) Representational deficit theories of (adult) SLA: Evidence, counterevidence and implications. Paper presented at *EUROSLA 13*. The University of Edinburgh.
- Hawkins, R. and Chan, C. (1997) The partial availability of Universal Grammar in second language acquisition: The 'failed functional features hypothesis'. *Second Language Research* 13, 187–226.
- Haznedar, B. (2001) The acquisition of the IP system in child L2 English. *Studies in Second Language Acquisition* 23, 1–39.
- Haznedar, B. and Schwartz, B. (1997) Are there optional infinitives in child L2 acquisition? In E. Hughes, M. Hughes and A. Greenhill (eds) *Proceedings of the 21st Annual Boston University Conference on Language Development* (pp. 257–268). Somerville, MA: Cascadilla Press.
- Herschensohn, J. (2001) Missing inflection in L2 French: Accidental infinitives and other verbal deficits. *Second Language Research* 17, 273–305.
- Hüttner, J. and Rieder-Bünemann, A. (2007) The effect of CLIL instruction on children's narrative competence. *Vienna English Working Papers (VIEWS)* 16 (3), 20–27.
- IEEIT – Ikastolen Elkarteko Eleanitz-Ingelesa Taldea. (2003) Eleanitz-English: Gizarte zientziak ingelesez. *BAT: soziolinguistika aldizkaria* 49, 79–98.
- Ionin, T. and Wexler, K. (2002) Why is 'is' easier than '-s'? Acquisition of tense/agreement morphology by child second language learners of English. *Second Language Research* 18 (2), 95–136.
- ISEI-IVEI (2007) *Alumnado trilingüe en secundaria: una nueva realidad*. On WWW at <http://www.isei-ivei.net/cast/pub/Alumnado-triling-final.pdf>.
- Lardiere, D. (1998a) Case and tense in the 'fossilized' steady state. *Second Language Research* 14, 1–26.
- Lardiere, D. (1998b) Dissociating syntax from morphology. *Second Language Research* 14, 359–375.
- Lardiere, D. (2000) Mapping features to forms in second language acquisition. In J. Archibald (ed.) *Second Language Acquisition and Linguistic Theory* (pp. 102–29). Oxford: Blackwell.
- Lardiere, D. (2007) Acquiring (or assembling) functional categories in second language acquisition. In A. Belikova, L. Meroni and M. Umeda (eds) *Proceedings of the 2nd Conference on Generative Approaches to Language Acquisition North America (GALANA)* (pp. 233–244). Somerville, MA: Casadilla Proceedings Project.
- Lasagabaster, D. (2001) Bilingualism, immersion programmes and language learning in the Basque Country. *Journal of Multilingual and Multicultural Development* 22, 401–425.
- MacWhinney, B. (2000) *The CHILDES Project: Tools for Analyzing Talk*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Marsh, D. (ed.) (2002) *CLIL/EMILE – The European Dimension: Actions, Trends and Foresight Potential*. Bruxelles: The European Commission.
- Marsh, D. and Wolff, D. (eds) (2007) *Diverse Contexts, Converging Goals: CLIL in Europe*. Frankfurt: Lang.
- Mayer, M. (1969) *Frog, Where Are You?* New York: Dial Books for Young Readers.
- Meisel, J. (1991) Principles of Universal Grammar and strategies of language learning: Some similarities and differences between first and second language acquisition. In L. Eubank (ed.) *Point Counterpoint: Universal Grammar in the Second Language* (pp. 231–76). Amsterdam: John Benjamins.
- Muñoz, I. (2003) Eleanitz-English: Gizarte Zientziak ingelesez. *Sociolinguistika Aldizkaria* 49, 79–97, Donostia: SEI.
- Muñoz, C. (2003) Los avances canadienses en la enseñanza de segundas lenguas. Reflexiones sobre nuestra situación. *Anuari de Filologia* XXV (12), 1–20.

- Myles, F. (2004) From data to theory: The over-representation of linguistic knowledge in SLA. *Transactions of the Philological Society* 102, 139–168.
- Perales Haya, S. (2004) La adquisición de la negación en inglés por hablantes bilingües euskera-castellano. Unpublished PhD dissertation, Universidad del País Vasco/Euskal Herriko Unibertsitatea (UPV/EHU).
- Pinker, S. and Prince, A. (1992) Regular and irregular morphology and the psychological status of rules of grammar. In L.A. Sutton, C. Johnson and R. Shileds (eds) *Proceedings of the 17th Annual Meeting of the Berkeley Linguistics Society* (pp. 230–251). Berkeley: Berkeley Linguistic Society.
- Prévost, P. and White, L. (2000) Missing surface inflection or impairment in second language acquisition? Evidence from tense and agreement. *Second Language Research* 16, 103–133.
- Ruiz de Zarobe, Y. (2007) CLIL in a bilingual community: Similarities and differences with the learning of English as a foreign language. *Views: Vienna English Working Papers* 16 (3), 47–52.
- Sierra, J. (1996) Los modelos de enseñanza bilingüe y el rendimiento escolar en educación primaria. Paper read at the *III European Conference on Immersion Programs*. Barcelona: September, 1996.
- Van de Craen, P., Mondt, K., Allain, L. and Gao, Y. (2007) Why and how CLIL works. An outline for CLIL theory. *Vienna English Working Papers (Views)* 16 (3), 70–78.
- Wolff, D. (2002) On the importance of CLIL in the context of the debate on plurilingual education in the European Union. In D. Marsh (ed.) *CLIL/EMILE – The European Dimension: Actions, Trends and Foresight Potential* (pp. 47–48). DG EAC, European Commission. University of Jyväskylä.
- Zobl, H. and Licerias, J. (1994) Functional categories and acquisition orders. *Language Learning* 44, 159–80.

Chapter 10

The Acquisition of English Syntax by CLIL Learners in the Basque Country

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Introduction

Current research on the acquisition of English as a third language (L3) in institutional settings has shown that an earlier start does not produce significantly better results in a situation of instructed foreign language acquisition, that is, the earlier is not the better, at least in this context (García Mayo, 2000; García Mayo *et al.*, 2001, 2002; Lázaro Ibarrola *et al.*, 2001). These results have been reported in independent investigations (Celaya *et al.*, 2001; Fullana, 1998; Fullana & Muñoz, 1999; Muñoz, 1999; Pérez Vidal *et al.*, 2000). As García Mayo (2003) concludes, when one considers the overall picture emerging from these studies, it seems clear that the early introduction of the English language in classroom settings will not lead to appropriate results if instructional hours are not used effectively and if there is no increase in the number of hours of exposure. Studies focusing on content-based instruction (CLIL) have concluded that this type of acquisition results in improved proficiency in English language skills and appears to ease students' transition into the academic mainstream (Brinton *et al.*, 1989; Kasper, 1994, 1995, 1995/96, 1997; Pica, 2002; Song, 2006). However, to the authors' knowledge there are no studies on the effects of CLIL on the acquisition of morpho-syntactic aspects in L2/L3 English. So, the present chapter is a pioneer work since it focuses on the acquisition of syntax by L3 learners of English immersed in a CLIL programme in schools of the Basque Autonomous Community. More specifically, we will analyse certain morphosyntactic phenomena that have been observed in previous studies and have been accounted for in terms of L1 influence (García Mayo, 2003; García Mayo *et al.*, 2005; Park, 2004; Perales, 2006), namely, the use of null subjects, insertion of placeholders *is/he* before the main verb, negation and the existence of null objects in the

interlanguage grammars of L2 English learners. We will then compare the results obtained in the CLIL group with those obtained in an ESS (English as a school subject, henceforth non-CLIL) group.

In this study, we have examined data from Spanish/Basque bilingual learners of L3 English in two different types of exposure contexts: non-CLIL and CLIL.¹ Taking as our starting point the claim that CLIL results in improved proficiency in the English language, we entertain the hypothesis that the effects of the L1 on the acquisition of English syntax will be minimised by this type of instruction. In order to test this hypothesis, we have collected and analysed data in the form of oral narratives produced by the learners. The students were asked to narrate the well-known story 'Frog, where are you?' (Bernan & Slobin, 1994) with visual support provided by a series of vignettes. A detailed analysis of their oral production shows that learners from the CLIL group outperform those in the non-CLIL group with respect to the acquisition of certain morphosyntactic features, which leads us to conclude that CLIL does have an effect on the acquisition process.

The chapter is organised as follows. In the first section, we give some background information in studies carried out on the advantages of content-based instruction. The second section is devoted to morphosyntactic features in Spanish, Basque and English. The third section briefly shows some research findings on the acquisition of English L2/L3 syntax. In the fourth section, we present the hypotheses entertained in this chapter, whereas the fifth section describes the study (participants and materials). The sixth section provides the results obtained and finally we discuss the possible implications of these results.

English as a Second Language Subject versus Content-based Instruction

Numerous research studies demonstrate consistently that content-based second language teaching promotes both language acquisition and academic success (Grabe & Stoller, 1997; Kasper, 1994; Krueger & Ryan, 1993; Snow & Brinton, 1997; Stryker & Leaver, 1997; Wesche, 1993). Students receiving linked instruction perform better in language courses than those not receiving such instruction (Kasper, 1997). They reap the benefits of significant gains in the second language, for example, in the receptive skills of listening and reading (Burger *et al.*, 1997; Ready & Wesche, 1992) and in the productive skills of writing (Burger, 1989) and speaking (Burger & Chrétien, 2001). They also achieve comparable or even better mastery of disciplinary content than English as second language (ESL) students (Andrade & Makaafi, 2001; Babbit, 2001; Kasper, 1994; Winter, 2004).

The literature on content-based language instruction has focused mainly on its most immediate effects, that is, the outcomes of one or two semesters in which content-based instruction was provided (Song, 2006).

Studies on long-term benefits of content-based language instruction are scarce (Kasper, 1997).

Song (2006) analyses 770 subjects, 385 enrolled in a content-based programme and 385 in a non-content programme. They enrolled as first semester freshmen from Spring 1995 to Spring 2000. Each student was then tracked until she/he graduated or left college. In this study, students who enrolled in the content-linked ESL programme in their first semester of college consistently performed significantly better in the ESL and developmental English courses than those who enrolled in the regular, non-content linked ESL courses.

Kasper (1997) assesses the effect of content-based instruction, comparing the subsequent academic performance of ESL students who were enrolled in content-based courses to the subsequent performance of ESL students who were not enrolled in such courses during the same semesters. Analyses were performed to compare the experimental group (the content-based group) versus the control group (ESL group) with respect to the following factors: (1) performance in ESL current courses; (2) performance on college assessment examinations; (3) performance in the mainstream composition course; and (4) graduation from college. Students from content-based classes not only did better at the time of instruction, but also continued to do so throughout the semesters following such instruction. Content-based students scored higher on college assessment examinations of English language proficiency, obtained higher grades in the mainstream and achieved a higher graduation rate than did non-content-based students.

All in all, content-based ESL courses seem to result in improved language and content performance. However, whether content-based learners outperform those in ESL programmes with respect to particular language areas, such as syntax, has not been previously investigated. This is the aim of the present chapter.

Morphosyntactic Features in Spanish, Basque and English

Our learners' native languages, Spanish and Basque, and the target language, English, are typologically different languages. On the one hand, Spanish is a Latin-based nominative-accusative Subject Verb Object (SVO) language, while Basque is an SOV ergative-absolutive language with non-Indo-European roots. English, on the other hand, is a Germanic SVO language with a nominative-accusative case system. These differences are reflected in the word order patterns displayed by the three languages: Spanish (1), Basque (2) and the glosses in English:

- (1) *Pedro come en casa los domingos.*
Peter eats at home on Sundays
'Peter eats at home on Sundays'

- (2) *Pellok etxean jaten du igandetan.*
 Peter home-in eat aux Sunday-in
 'Peter eats at home on Sundays'

In contrast to English, both Spanish and Basque can have inversion of the subject, as illustrated in (3), (4) and (5):

- (3) *Los domingos come Pedro en casa.*
 On Sundays eats Peter at home
 'On Sundays, Peter eats at home'
- (4) *Igandetan etxean jaten du Pellok.*
 Sunday-in home-at eat aux Peter-erg
 'On Sundays, Peter eats at home'
- (5) *On Sundays eats at home Peter.

However, both Spanish and Basque share certain characteristics in opposition to English. Both Spanish (6) and Basque (7) have rich verbal morphology: Spanish verbs agree with their subjects and Basque verbs agree with the subject, direct object and indirect object. However, in English the lexical verb only agrees with the subject in the third person singular in the present simple tense:

- (6) *Los niños han comprado helados.*
 The boys have-3pl bought ice-creams
 'The boys have bought ice-creams'
- (7) *Guk goxokiak erosi dizkiogu amari.*
 We-erg sweet-pl buy aux-3pl-3sg-1pl mother-to
 'We have bought sweets for our mother'

Both Basque and Spanish belong to the group of the so-called pro-drop languages (Ortiz de Urbina, 1989). According to Chomsky (1981), Jaeggli (1982), Jaeggli and Safir (1989) and Rizzi (1982, 1986), the pro-drop parameter differentiates, for instance, Spanish and Italian from English with respect to the properties listed below:

- (A) Spanish and Basque, unlike English, can have missing subjects, as shown in (8) and (9):
- (8) Spanish: *Comieron* *chocolate*
 eat-3pl PAST *chocolate*
 'They ate chocolate'

Basque: *Txokolatea* *jan* *zuten*
 chocolate eat 3pl PAST
 'They ate chocolate'

English: *Ate chocolate versus They ate chocolate

- (9) Spanish: *Nevó* *mucho* *el pasado invierno.*
 snow3sgPAST a lot the last winter
 'It snowed a lot last winter'

Basque: *Elur* *asko* *egin* *zuen* *pasa den neguan.*
 snow a lot do AUX-3sgPAST past aux-rel. winter
 'It snowed a lot last winter'

English: *Snowed a lot last winter versus It snowed a lot last winter

- (B) Spanish and Basque, unlike English, can have free subject–verb inversion, as shown in (10):

- (10) Spanish: *Ha* *dormido* *toda* *la noche* *el niño.*
 have3sg sleep-PP all The night the baby
 'The baby has slept all night'

Basque: *Gau* *osoan* *egin* *du* *lo* *haurrak.*
 night entire do AUX3sg sleep children
 'The baby has slept all night'

English: *Has slept all night the baby versus The baby has slept all night

- (C) Spanish and Basque can have apparent violations of the so-called that-trace filter. The filter accounts for the fact that extraction of a Wh-phrase from the subject position next to a lexically filled complementiser is excluded in English, as illustrated in (11):

- (11) Spanish: *¿Quién* *crees* *que* *__* *vino* *ayer?*
 who think-2nd sg. that come-3sg-PAST yesterday
 'Who do you think came yesterday?'

Basque: *Nor* *uste* *duzu* *etorri* *zela* *atzo?*
 who think AUX-2sg come-PF AUX-3sg-PAST yesterday
 'Who do you think came yesterday?'

English: *Who do you think that __ came yesterday? versus Who do you think came yesterday?

Another difference between Spanish and Basque, our learners' native languages, and English revolves around the possibility of allowing null

objects. Null objects in Spanish are allowed when an object has an arbitrary or an indefinite interpretation, as we can see in the following dialogue:

- (12) Speaker A: *¿Has sacado dinero esta mañana?*
 Have2sg withdraw money this Morning
 'Did you withdraw any money this morning?'
 Speaker B: *Sí, sí he sacado e_i.*
 yes, yes have-1sg withdrawn
 'Yes, I withdrew (it)'

According to Landa (2000), direct object clitics *lo/s* and *la/s* normally take a definite Noun Phrase (NP) as their antecedent, as illustrated in (13):

- (13) *No tengo el artículo aquí pero mañana te lo traeré.*
 no have the article here but tomorrow 2CL it-DO-CL bring-future
 'I don't have the article here but I will bring it tomorrow'

In Basque, null objects are allowed even if the antecedent is a definite NP, as in (14) adapted from Landa (2000):

- (14) *Artikulua ez daukat hemen baina bihar*
 article-the no have-1sg here but tomorrow *pro suj. pro OD pro OI*
ekarriko dizut.
 bring-future aux-2sDat.1s
 'I don't have the article here but I will bring it to you tomorrow'

In English like Spanish, null objects are not allowed with definite NPs as antecedents, as we can see in (15):

- (15) (a) **They ran away and we chased.*
 (b) **John took the book and opened.*

In contact situations as Basque/Spanish, direct object clitics in Spanish which normally take a definite NP as their antecedent are dropped when they refer to an inanimate entity. This change of restriction is due to contact with Basque. This is exemplified in (16):

- (16) *Te he traído el porque hace un pero si no puedes mirar*
Coche ruidó
 2CL have brought the because make- a noise but if not can look
 car 3sg
hoy miras mañana.
 today look Tomorrow

'I brought you the car because it makes a noise, but if you can't take a look at it today, look at it tomorrow'

(Landa & Elordui, 1999)

Finally, regarding negation, Spanish and Basque have a negative marker which is an independent lexical entry and phonetic realisation of Negation Phrase (NegP) and precedes the finite verb, as shown in (17) and (18):

(17) *El niño no ha dormido.*
 the boy no has slept
 'The baby has not slept'

(18) *Haurrak ez du lo egin.*
 baby-the no has slept
 'The woman has not slept'

In English, the negative marker appears like *not* or *n't*. This negative marker follows the finite verb (copula *be* and modal verbs) or in complex forms, it follows the auxiliary, as illustrated in (19) and (20), respectively:

(19) Mary is not at home.

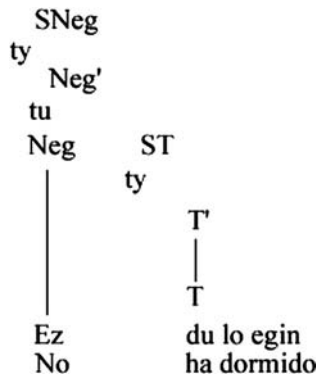
(20) The child has not/n't slept.

When English verbs do not appear followed by a modal or an auxiliary *have*, it is necessary to insert the auxiliary *do* (*did* in the past) to form grammatical negative sentences:

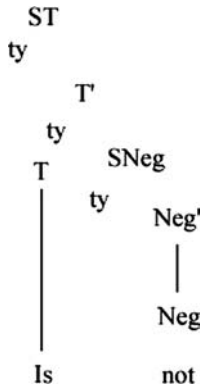
(21) (a) Mary slept late.
 (b) Mary did not sleep late.

Ouhalla (1991) proposes the Negation Parameter according to which languages vary with respect to the position NegP occupies within the sentence. More specifically, variation is reduced to whether NegP dominates Tense Phrase (TP) or TP dominates NegP, as shown in (22) and (23):

(22) Spanish and Basque:



(23) SNeg in English



Previous Acquisition Findings in L2/L3 English

In this section, we give some background information about several morphosyntactic aspects that have been widely discussed not only in the L1 acquisition but also in the L2/L3 acquisition literature: use of null subjects, insertion of placeholders *is/he* before the main verb, negation and the existence of null objects. More specifically, in L2 English these features have been explained in terms of L1 influence in previous studies (García Mayo, 2003; García Mayo *et al.*, 2005; Perales, 2006; Park, 2004) and it is worth investigating if the type of instruction (ESS versus CLIL) may have an effect on the impact of the L1, or in other words, if the effects of L1 influence, which have been observed in the process of acquisition as reviewed above, could be minimised by a CLIL programme.

The pro-drop parameter

Research carried out on the acquisition of overt subjects in L2 English seems to suggest that the incidence of null subjects is very low, unless the L1 is pro-drop (White, 2003). In this respect, White (1985, 1986) showed that French-speaking and Spanish-speaking learners of English behaved differently with respect to null subjects in English. In grammaticality-judgement tasks, Spanish speakers were significantly more likely to accept null subjects in English than French speakers were. This differential behaviour based on properties of the L1 (Spanish but not French being a null subject language) supports transfer from the L1. Moreover, García Mayo’s study (2003) on the age factor and the acquisition of overt subjects in English by Spanish/Basque bilinguals suggests that the early

introduction of the English language in classroom settings will not lead to the correct identification of ungrammatical sentences as incorrect with null subjects if instructional hours are not used effectively and there is no increase in the number of hours of exposure (e.g. by means of a CLIL programme).

Insertion of place holders *is* and *he* before lexical verbs

The insertion of *is/he* before lexical verbs has been observed in English non-native grammars of L2 English (Eubank, 1993/94; Fleta, 1999; Lakshmanan, 1993/94). In (24) and (25) we can see some examples taken from García Mayo *et al.* (2005):

- (24) The kid *is* open the door.
 The dog *is* came.
 The boy and the dog *is* sit down.
- (25) The wolf *he* opened the door.
 The father and the woman *they* love.

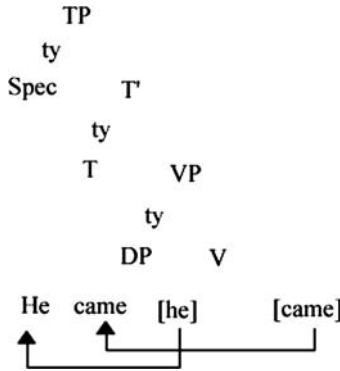
To understand this phenomenon, García Mayo *et al.* (2005) made use of Kato's (1999) proposal of weak and strong pronouns. Kato (1999) reanalyzes weak and strong pronouns assuming that the universal inventory of weak pronouns is made up of (1) free weak pronouns (as in English); (2) clitic pronouns (as in French); and (3) agreement morphemes (as in Spanish and Basque). Following this analysis, Spanish and Basque agreement morphemes are equivalent to English free weak pronouns and the only difference between them is that free weak pronouns can appear independently, whereas agreement morphemes have to be adjoined to the verb. Consequently, the structural position proposed for each one is different. According to Kato (1999), free weak pronouns appear in the specifier position of TP, adjoined preverbally as in (26), whereas clitic pronouns and agreement morphemes appear adjoined under [T], as in (27) below:

- (26) TP [he[T'[T came]]]
- (27) TP [T vin-o]
 TP [il-vint].

In English, movement of the lexical verb to T is delayed until Logical Form (LF) because the verb does not have strong features. The weak pronoun raising to the specifier position of TP to check its strong nominal features

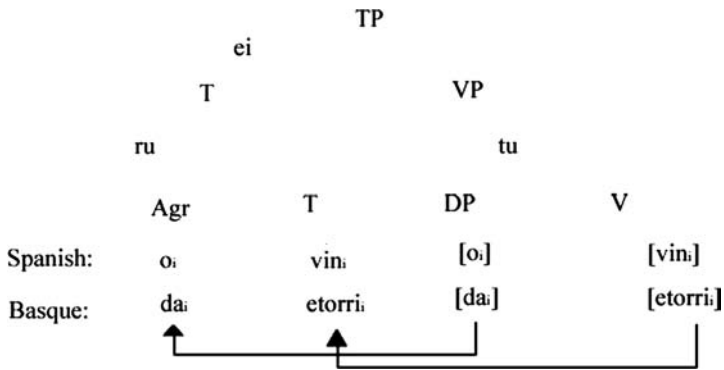
and its own features (nominative case and phi features). [Spec, TP] is projected to house the pronoun, as we can observe in (28):

(28) He came.



On the contrary, in languages like Spanish or Basque, whose weak pronouns are agreement morphemes, the representation would be the one in (29):

(29) Spanish: *vino*
Basque: *etorri da*



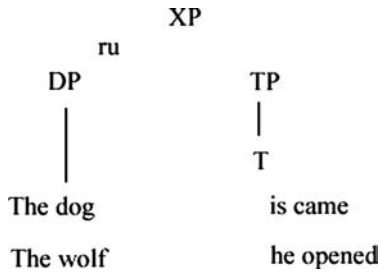
(García Mayo *et al.*, 2005).

In (29) agreement morphemes and verbs move to T in overt syntax and agreement morphemes check their strong nominal features (case and phi features) in this category. Agreement is adjoined to the lexical verb under T and there is no need to project a specifier position in the TP.

In the acquisition of English as L2, some researchers assume that functional categories have been transferred from the L1, but the specific

instantiations of the adult language (abstractly or phonologically realised) are not produced and, therefore, *is/are* make up for that deficit and appear in the inflectional phrase (IP) (Eubank, 1993/94; Fleta, 1999; Lakshmanan, 1993/94). García Mayo *et al.* (2005) and Lázaro Ibarrola (2002) propose that Spanish/Basque bilinguals transfer the TP structures from their first languages and adjoin lexical pieces from the L2 input: place holder *is* during a first developmental stage, place holder *he* during a second stage. They use these place holders as agreement morphemes. These authors propose the following structure in the English interlanguage of the learners:

(30) English Interlanguage of Spanish/Basque bilinguals.



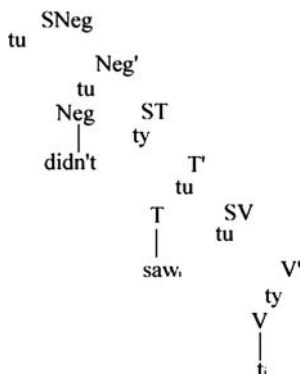
Negation

Perales (2006) analyses various patterns of negation among Spanish/Basque learners of L2 English: no(t) + noun, no(t) + verb, *don't (non-inflected), don't (inflected) and auxiliary + not. In (31) we can observe an example of *don't:

(31) *He didn't saw the frog in his room.

This example suggests that the learners move the verb to T, position occupied by finite verbs in Spanish and Basque. In English verbs remain in V. The tree representation of (31) appears in (32):

(32) English interlanguage of Spanish/Basque learners



Perales (2006) following Lázaro Ibarrola (2002) claims that learners adopt English lexical units and adjust them to the structures of their L1s. They try to find an independent lexical unit (no, isn't, don't or doesn't) to place it as the head of SNeg, which precedes the finite verb as in Spanish or Basque.

Null objects

Studies on the existence of null objects in L2 English are few and most of them have been carried out with Chinese or Korean as L1s (Park, 2004; Yuan, 1997). The present study is new in this sense, since to the authors' knowledge, the existence of null objects in the L2 English interlanguage of Basque/Spanish learners has not been investigated before. For Park (2004) null objects in languages such as Korean are the result of two interacting factors: weak theta features at the syntactic level and encoding of topic-referring NPs by zero anaphora at the pragmatic level. On the contrary, obligatory objects in English are due to the strong theta feature at the syntactic level and use of overt pronouns to encode topic-referring NPs at the pragmatic level. Languages with strong theta features do not allow null objects since the formal theta features of verbs need to be checked against those of objects before spell out. Languages like Korean and Japanese have weak theta features, thus feature checking can be postponed until after spell out. Due to the weak theta features, null objects and scrambling are allowed in these languages. This explains why Korean learners of L2 English drop objects. Korean and English differ from each other in the strength of theta features, and it takes time for Korean learners, whose L1 has weak theta features to learn the strong theta feature of English. If we apply this proposal to the present study, we could argue that Spanish/Basque bilinguals might have problems when acquiring overt objects in English due to transfer from the weak theta feature of Basque. Null objects and scrambling are allowed in Basque as in Japanese or Korean.

Hypotheses

Taking into account that CLIL learners normally outperform ESS learners in general language competence tests (Kasper, 1997; Song, 2006, among others) and bearing in mind that several L1 effects have been observed in the English interlanguage of Spanish/Basque bilinguals (García Mayo, 2003; García Mayo *et al.*, 2005; Perales, 2006), we propose that these L1 effects will be minimised by participation in a CLIL programme. More specifically we propose that:

- (1) Null subjects will be produced to a lower extent in the CLIL group.
- (2) The incidence of placeholders *is/he* will be lower in the CLIL group.

- (3) The production of **don't* plus inflected verb or **isn't* plus lexical verb will be lower in the CLIL group.
- (4) The incidence of null objects will be lower in the CLIL group.

Method

Sample

The participants are 14-year-old Basque/Spanish bilingual students learning L3 English at schools in the Basque Country. The participants are divided into two groups. Group I ($n = 10$) belongs to an ESS context and Group II ($n = 9$) acquires English within a CLIL setting. Learners in both groups started learning English at the age of eight and have been learning English for seven years. So both groups share a common age of first exposure and the same number of years of study. However, learners in Group II have been taking part in a CLIL programme for the last academic year. Consequently, they have received 363 hours of additional exposure to the English language.

The context in which the subjects are immersed has been defined as additive trilingualism (Cenoz & Valencia, 1994). Basque, the language of instruction, is the minority language, which is nowadays increasingly used and valued in the community. Spanish is the majority language and English is taught as a foreign language. Table 10.1 displays the details of the subjects in this study:

Research instruments

Students were asked to narrate the well-known story 'Frog, where are you?' (Bernan & Slobin, 1994) with visual support provided by a series of vignettes. All their oral production was transcribed and codified in CHILDES (McWhinney, 2000) format.

Table 10.1 The subjects

<i>Course</i>	<i>Age at first exposure</i>	<i>Age at testing</i>	<i>Length of exposure</i>	<i>Total number of hours of exposure</i>
CLIL group				
Third year secondary education. ($n = 10$)	8	14	7	1155 h
Non-CLIL group				
Third year secondary education. ($n = 10$)	8	14	7	792 h

Results

In this section, we report the results obtained in the oral production by both the ESS and the CLIL groups. We will refer to the results taking into account the different morphosyntactic features we have mentioned.

Null subjects

As expected, the interlanguage of the learners in both groups displays null subjects, as the examples (33) and (34) illustrate:

(33) *Find the frog with a family* (CLIL learner)

(34) *Is a reindeer* (ESS learner).

When taking into consideration the distribution of null subjects in matrix versus embedded clauses, we have to say that the majority of null subjects is produced in matrix clauses. We must add that the production of embedded clauses is much higher in the CLIL group than in the ESS group, this being difference statistically significant ($t = 3.05$; p -value ≈ 0.007).

The analysis of the oral production of both groups reveals that despite the fact that the production of null subjects in matrix clauses in the CLIL group is lower than that in the ESS group, this difference is not statistically significant ($t = 1.61$; p -value ≈ 0.124), as observed in Table 10.2.

The analysis of the oral production of both groups reveals that the production of null subjects in embedded clauses in the CLIL group is lower than that in the ESS group ($t = 0.075$; p -value ≈ 0.941) as observed in Table 10.3. However, no statistically significant differences were found among the learners. This result seems to indicate that exposure to the English language within a CLIL programme for 1155 hours is not sufficient to reset

Table 10.2 Means based on the production of null subjects in matrix clauses

	<i>Mean</i>	<i>SD</i>
CLIL	1.00	1.11
Non-CLIL	2.40	2.36

Table 10.3 Means based on the production of null subjects in embedded clauses

	<i>Mean</i>	<i>SD</i>
CLIL	0.11	0.33
Non-CLIL	0.10	0.31

the null subject parameter, even though we could claim that learners are in the process of removing null subjects from their grammar.

Production of placeholders *is/he*

Another characteristic of L2 English interlanguage grammars is the use of placeholders *is/he*, a characteristic also found in the present study as the following examples taken from the ESS group show:

- (35) *The dog is escape to bees.*
 (36) *One day in the morning the boy is wake up.*
 (37) *And the dog is fall of the window.*
 (38) *The boy is go to the window.*

In Table 10.4, we present the distribution of placeholders *is/he* in both groups. As can be observed in Table 10.4 only the learners in the ESS group make productive use of the placeholder *is*. The results of the *t*-test revealed a statistically significant difference between both groups ($t = 3.63$; p -value ≈ 0.005). This implies that learners within the CLIL programme do not transfer TP structures from their L1s. This result can be related to the fact that learners in the CLIL group display a more accurate agreement morphology and for this reason they do not need placeholders any more. This is supported by previous studies (García Mayo *et al.*, 2005), among others.

Negation

Regarding negation learners in both groups produce different types of negative constructions, as shown in Table 10.5.

Each type of negation is exemplified below from (39) to (45), respectively:

- (39) *But no in the mountain.*
 (40) *They don't see the frog.*
 (41) *He doesn't see his frog.*
 (42) *They don't found the frog.*

Table 10.4 Means based on the production of placeholders *is/he*

	<i>Mean</i>	<i>SD</i>
CLIL	0.00	0.00
Non-CLIL	3.30	2.86

Table 10.5 Means based on the production of different types of negation

	CLIL		ESS	
	Mean	SD	Mean	SD
no + noun	0.11	0.33	0.10	0.31
don't + non inflected verb	0.89	1.36	0.10	0.31
doesn't + non inflected verb	0.56	1.01	0.00	0.00
don't + inflected verb	0.11	0.33	0.80	1.54
aux + not + noun	0.00	0.00	0.10	0.31
is + not + adv	0.56	1.01	0.10	0.31
isn't + adv	0.00	0.00	0.20	0.422

(43) *And is not her frog.*

(44) *The frog is not in the pot.*

(45) *Isn't here.*

As we can observe in Table 10.5, different types of negation exist in the interlanguage of these learners. Although the data analysed yielded no statistically significant differences between both groups regarding negation, we can observe that the ESS learners produce the ungrammatical sequence *don't + inflected verb with greater frequency, which has been accounted for in terms of L1 influence in the literature.

Production of null objects

The data showed that learners in both groups produce null objects in their narratives as shown below:

(46) *He doesn't find.*

(47) *He drop ah to the water.*

(48) *The boy saw.*

The interlanguage grammars of our learners show that the presence of null objects is marginal in both groups although the ESS learners produced more sentences where the object was missing. Table 10.6 shows the means obtained in the production of null objects. The difference in the production of null objects was not statistically significant ($t = 1.45$; p -value ≈ 0.16), which we understand to show that a total exposure of 1155 hours in a CLIL context seems to be insufficient to change the weak theta feature of Basque at the syntactic level.

Table 10.6 Means based on the production of null objects

	<i>Mean</i>	<i>SD</i>
CLIL	0.56	0.72
Non-CLIL	1.20	1.13

Discussion

In this section, we will contrast the results we have presented above with the general hypothesis according to which L1 effects will be minimised by participation in a CLIL programme. With respect to the production of null subjects, we hypothesised that null subjects will be produced to a lower extent in the CLIL group. Our results show that although there were no statistically significant differences between both groups, those in the ESS group produced null subjects with greater frequency. This leads us to conclude that the learners' interlanguage grammars still show L1 transfer effects as previously documented in White (1985, 1986) or García Mayo (2003).

Regarding the use of placeholders *is/he*, we proposed that the incidence of these elements will be lower in the CLIL group. Our hypothesis was supported by the data since CLIL did not produce any instances of placeholder *is* although we did find one instance of placeholder *he*, which we show below.

(49) *And the boy he doesn't look the frog.*

On the other hand, learners in the ESS group made use of placeholder *is* consistently, without any trace of placeholder *he* in their interlanguage. Taking into account García Mayo *et al.*'s (2005) and Lázaro Ibarrola's (2002) study according to which Spanish/Basque bilinguals transfer the TP structures from their L1s and adjoin lexical pieces from the L2 input, that is, placeholder *is* during the first developmental stage, placeholder *he* during the second stage, we can conclude that in this respect the ESS group is in a stage prior to the CLIL group.

As for negation, we predicted that the production of the ungrammatical sequences **don't* + inflected verb and **isn't* + lexical verb will be lower in the CLIL group. The results revealed that although there were no statistically significant differences between both groups, those in the ESS group produced **don't* + inflected verb sequences to a greater extent when compared to the CLIL learners. No sequences of **isn't* + lexical verb were found. Two pieces of data lead us to conclude that learners have not reset the negative parameter yet, namely the absence of the sequence *do not* and the use of contracted negative auxiliary *don't* followed by an inflected verb as in (40). This is in accordance with the results obtained by Perales (2006) for a similar group. These learners still move verbs to T as in Basque and Spanish.

Finally, turning to null objects, we proposed in the hypotheses section that the incidence of null objects will be lower in the CLIL group. The results showed no statistically significant differences in this regard between both groups. However, we have observed a tendency to expunge null objects from the interlanguage. The presence of null objects is marginal in both groups, which suggests that the effect of the weak theta feature of Basque does not have a big impact on the learners' interlanguage. This impact could have been reduced due to the presence of a strong theta feature in Spanish, one of the learners' L1s, strength value also shared by the L3 English.

Conclusion

The morphosyntactic analysis carried out comparing the ESS and CLIL group has revealed that, from the morphosyntactic features under investigation, CLIL learners significantly outperform ESS learners only in the use of placeholders. With respect to the other features investigated, namely the use of null subjects, null objects and negation, we have found no statistically significant differences between both groups. Nevertheless, we must add that we did observe a tendency to minimise L1 effects in the CLIL group, given their higher tendency to avoid null arguments in general. We have to bear in mind that the difference between both groups is of 363 hours of exposure, perhaps insufficient to appreciate statistically significant differences in the other features under investigation. So even if our main hypothesis is supported only with respect to the use of placeholders, further research is necessary in order to reach more definite conclusions on the effects of CLIL instruction. Ongoing research will shed light on whether the improvement is statistically significant after a longer period of CLIL instruction. Similarly, the question of whether the difference in competence is due to the learners' participation in the CLIL programme or whether it is a mere effect of a higher number of hours of exposure will be addressed in future research comparing data from a group composed of learners in an ESS setting who had received the same amount of hours of exposure as the CLIL group, that is, 363 hours.

Acknowledgements

This research was supported by grants from the Spanish Ministry of Science and Technology (HUM2006-09775-C02-01/FILO) and the Basque Government/University of the Basque Country (00103.130-13578/2001) to both authors. This support is hereby gratefully acknowledged. The second author also wants to acknowledge the grants awarded by the Spanish Ministry of Education and Science (CONSOLIDER-INGENIO 2010 CSD2007-00012) and the Basque Government (IT-210-07). All errors remain ours.

Note

1. Our investigation is part of an ongoing research project by the Research in English Applied Linguistics (REAL) group at the University of the Basque Country.

References

- Andrade, M.S. and Makaafi, J.H. (2001) Guidelines for establishing adjunct courses at the university level. *TESOL Journal* 10, 34–39.
- Babbit, M. (2001) Making writing count in an ESK learning community. In I. Leki (ed.) *Academic Writing Programs* (pp. 49–60). Alexandria, VA: TESOL.
- Bernan, R.A. and Slobin, D.I. (1994) The optimal age to learn a foreign language. *The Modern Language Journal* 53, 334–341.
- Brinton, D.M., Snow, M.A. and Wesche, M.B. (1989) *Content-Based Second Language Instruction*. New York: Newbury House.
- Burger, S. (1989) Content-based ESL in a sheltered psychology course: Input, output and outcomes. *TESL Canada Journal* 6 (2), 45–59.
- Burger, S., Wesche, M. and Migneron, M. (1997) 'Late, late immersion': Discipline-based second language teaching at the University of Ottawa. In R.K. Johnson and E.M. Swain (eds) *Immersion Education: International Perspectives* (pp. 65–84). Cambridge: Cambridge University Press.
- Burger, S. and Chrétien, M. (2001) The development of oral production in content-based second language courses at the University of Ottawa. *The Canadian Modern Language Review* 58, 84–102.
- Celaya, M.L., Torras, M.R. and Pérez Vidal, C. (2001) Short and mid-term effects of an earlier start: An analysis of EFL written production. In S. Foster-Cohen and A. Nizgorodcew (eds) *EUROSLA Yearbook* (pp. 195–209). Amsterdam: John Benjamins.
- Cenoz, J. and Valencia, J. (1994) Additive trilingualism: Evidence from the Basque Country. *Applied Psycholinguistics* 15, 195–207.
- Chomsky, N. (1981) *Lectures on Government and Binding*. Dordrecht: Foris.
- Eubank, L. (1993/94) On the transfer of parametric values in L2 development. *Language Acquisition* 3, 183–208.
- Fleta, M.T. (1999) *La Adquisición del Inglés No Nativo por Niños: El Desarrollo de la Cláusula*. Unpublished PhD dissertation, Universidad Complutense de Madrid, Instituto Universitario Ortega y Gasset.
- Fullana, N. (1998) El efecto de la edad y cantidad de exposición a la L2 (inglés) sobre la percepción y producción de los fonemas del inglés. Paper presented at the *II Trobada Internacional sobre l'adquisició de les llengües de L'Estat*. Universitat de Barcelona, 2–4 September.
- Fullana, N. and Muñoz, C. (1999) The development of auditory discrimination skills in EFL learners of different ages. *Proceedings of the XXIII International AEDEAN Conference*. León: Universidad de León. CD-ROM format.
- García Mayo, M.P. (2000) Juicios de gramaticalidad y el factor edad en inglés como lengua extranjera. Plenary lecture at the XIX Summer Courses. The University of the Basque Country (Course: *El factor edad en la adquisición de lenguas extranjeras*-San Sebastián, 10–12 July).
- García Mayo, M.P. (2003) Age, length of exposure and grammaticality judgements in the acquisition of English as a foreign language. In M.P. García Mayo and M.L. García Lecumberri (eds) *Age and the Acquisition of English as a Foreign Language* (pp. 94–114). Clevedon: Multilingual Matters.

- García Mayo, M.P., Lázaro Ibarrola, A. and Licerias, J.M. (2001) The English Interlanguage of bilingual (Basque–Spanish) children: Evidence for Full Transfer and delay in feature assignment. Paper presented at the *11th EUROSLA conference*. Paderborn (Germany), 26–29 September.
- García Mayo, M.P., Lázaro Ibarrola, A. and Licerias, J.M. (2002) Agreement in the interlanguage of Basque/Spanish bilingual children: A minimalist farewell to *pro*. Paper presented at the *12th EUROSLA conference*. Basel (Switzerland), 18–21 September.
- García Mayo, M.P., Lázaro Ibarrola, A. and Licerias, J.M. (2005) Place holders in the English interlanguage of Basque/Spanish children. *Language Learning* 55 (3), 445–489.
- Grabe, W. and Stoller, F. (1997) Content-based instruction: Research foundations. In M.A. Snow and D.M. Brinton (eds) *The Content-Based Classroom: Perspectives on Integrating Language and Content* (pp. 158–174). New York: Longman.
- Jaeggli, O. (1982) *Topics in Romance Syntax*. Dordrecht: Foris.
- Jaeggli, O. and Safir, K. (1989) The null subject parameter and parametric theory. In O. Jaeggli and K. Safir (eds) *The Null Subject Parameter* (pp. 1–44). Dordrecht: Foris.
- Kasper, L.F. (1994) Developing and teaching a content based reading course for ESL students. *Teaching English in the Two-Year College* 21, 23–26.
- Kasper, L.F. (1995) Theory and practice in content-based ESL reading instruction. *English for Specific Purposes* 14, 223–230.
- Kasper, L.F. (1995/96) Using discipline-based texts to boost college ESL reading instruction. *Journal of Adolescent and Adult Literacy* 39, 298–306.
- Kasper, L.F. (1997) The impact of content-based instructional programs on the academic progress of ESL students. *English for Specific Purposes* 16 (4), 309–320.
- Kato, M.A. (1999) Strong and weak pronominals in the null subject parameter. *Probus* 11, 1–27.
- Krueger, M. and Ryan, F. (eds) (1993) *Language and Content: Discipline- and Content-Based Approaches to Language study*. Lexington, MA: Heath.
- Lakshmanan, U. (1993/94) The boy for the cookie: Some evidence for the non-violation of the case filter in child second language acquisition. *Language Acquisition* 3, 51–97.
- Landa, A. (2000) Del paralelismo estructural a la convergencia gramatical: Contacto español-vasco. In A. Englebert, M. Pierrard, L. Rosier and D. Van Raemdonck (eds) *Actes du XXIIIe Congrès International de Linguistique et de Philologie Romanes* (pp. 285–292). Brussels: Niemeyer.
- Landa, A. and Elordui, A. (1999) Gramáticas en contacto: Condiciones de permeabilidad y tendencias universales. In A. Yanguas and F. J. Salguero (eds) *Estudios de Lingüística Descriptiva y Comparada* (pp. 229–238). Sevilla: Kronos.
- Lázaro Ibarrola, A. (2002) *La Adquisición de la Morfosintaxis del Inglés por Niños Bilingües (Euskera/Castellano): Una Perspectiva Minimalista*. PhD dissertation, University of the Basque Country.
- Lázaro Ibarrola, A., García Mayo, M.P. and Licerias, J.M. (2001) Age and acquisition of English as an L3 by bilingual (Basque–Spanish) children: Is the earlier the better? *Proceedings of the Second International Conference on Third Language Acquisition and Trilingualism*. CD-ROM document.
- McWhinney, B. (2000) *The CHILDES Project: Tools for Analyzing Talk* (3rd edn). Mahwah, NJ: Lawrence Erlbaum Associates.
- Muñoz, C. (1999) The effects of age on instructed foreign language acquisition. In S. González-Fernández Corugedo, R. Baldeón, D. García, A. Ojanguren, M. Urdiales and A. Antón (eds) *Essays in English Language Teaching: A Review of the Communicative Approach* (pp. 1–22). Oviedo: Universidad de Oviedo.

- Ortiz de Urbina, J. (1989) *Parameters in the Grammar of Basque*. Dordrecht: Foris.
- Ouhalla, J. (1991) *Functional Categories and Parametric Variation*. London: Routledge.
- Park, H. (2004) A minimalist approach to null subjects and objects in second language acquisition. *Second Language Research* 20 (1), 1–32.
- Perales, S. (2006) Edad y etapas en el aprendizaje de la negociación en inglés como L3 en contextos formales. *RESLA* 19, 143–162.
- Pérez Vidal, C., Torras, M.R. and Celaya, M.L. (2000) Age and EFL written performance by Catalan–Spanish bilinguals. *Spanish Applied Linguistics* 4 (2), 267–290.
- Pica, T. (2002) Subject-matter content: How does it assist the interactional and linguistic needs of classroom language learners? *The Modern Language Journal* 86, 1–19.
- Ready, D. and Wesche, M. (1992) An evaluation of the University of Ottawa’s sheltered program: Language teaching strategies that work. In R. Courchêne, J.I. Glidden, J. St. John and C. Thérien (eds) *Comprehension-Based Second Language Teaching/L’enseignement des langues secondes axé sur la compréhension* (pp. 389–405). Ottawa: University of Ottawa Press.
- Rizzi, L. (1982) *Issues in Italian Syntax*. Dordrecht: Foris.
- Rizzi, L. (1986) Null objects in Italian and the theory of pro. *Linguistic Inquiry* 17, 501–557.
- Snow, M.A. and Brinton, D.M. (eds) (1997) *The Content-Based Classroom: Perspectives on Integrating Language and Content*. New York: Longman.
- Song, B. (2006) Content-based ESL instruction: Long-term effects and outcomes. *English for Specific Purposes* 25, 420–437.
- Stryker, S.B. and Leaver, B.I. (eds) (1997) *Content-Based Instruction in Foreign Language Education: Models and Methods*. Washington, DC: Georgetown University.
- Wesche, M. (1993) Discipline-based approaches to foreign and second language study: Research issues and outcomes. In M. Krueger and F. Ryan (eds) *Language and Content: Discipline- and Content-Based Approaches to Language Study* (pp. 57–82). Lexington, MA: DC Heath.
- White, L. (1985) The pro-drop parameter in adult second language acquisition. *Language Learning* 35, 47–62.
- White, L. (1986) Implications of parametric variation for adult second language acquisition: An investigation of the ‘pro-drop’ parameter. In V. Cook (ed.) *Experimental Approaches to Second Language Acquisition* (pp. 55–72). Oxford: Pergamon Press.
- White, L. (2003) *Second Language Acquisition and Universal Grammar*. Cambridge: Cambridge University Press.
- Winter, W.E. (2004) The performance of ESL students in a content-linked psychology course. *Community Review* 18, 76–82.
- Yuan, B. (1997) Asymmetry of null subjects and null objects in Chinese speakers’ L2 English. *Studies in Second Language Acquisition* 19, 467–497.

Chapter 11

Communicative Competence and the CLIL Lesson

CHRISTINE DALTON-PUFFER

[...] an individual's 'communicative competence' can only be understood in terms of the practices of which she has been a member, her social identities, the degree and kinds of participation she has assumed (or has been allowed to assume) in them. (Hall, 1995: 219)

Introduction

For several decades now, 'the ability to communicate' has enjoyed high priority in the discourse about the proper goals of foreign language education. In this connection, the notion of communicative competence has turned into something like a household term, undergoing some subtle and frequently unnoticed recontextualisations in the process. To a good measure the popularity that Content and Language Integrated Learning (CLIL) is currently enjoying in Europe stems from the conviction that somehow this learning arrangement promises to promote the learners' 'ability to communicate' in ways that traditional foreign language teaching does not. The present chapter is an enquiry into these underlying assumptions combined with a reality check using CLIL classroom data. I believe that this discussion needs to be led in order to ensure a sound development for the CLIL undertaking, one important aim being to achieve greater explicitness with regard to the effects the learning environment has on the observable linguistic behaviour of the participants. In the following I will briefly review some assumptions about language learning that can and do come into play when thinking about the theoretical foundations of CLIL, which in turn leads me to discuss the nature of the speech event that actually constitutes the learning context. Subsequently, the discussion will turn to the nature of communicative competence as a construct. In the remainder of the chapter, a particular version

of that construct will serve as the framework for a global review of learner language as observed in a study of 40 CLIL classrooms.

Classroom Lessons as Learning Environments

Rationales of CLIL programmes frequently make reference to the qualities of CLIL classrooms as immersion-like, input-rich environments for language acquisition, stressing their focus on meaning over form as particularly beneficial for language learning. Such argumentations presuppose an understanding of language learning as an essentially self-unfolding, individual cognitive process, as it is embodied in Krashen's acquisition model (Krashen, 1985). I am, however, convinced that the theoretical base of CLIL needs to take on board additional, complementary conceptions. For example, Lyster (2007) has recently presented a 'counterbalanced approach' that accords focus on linguistic form a much more important role in the development of learners' language competence than hitherto acknowledged for immersion and related models like CLIL. His claims are based on a large body of research about Canadian immersion programmes. A further perspective is afforded by general educational theory and the study of language learning with the idea that knowledge is developed in a dialogic process between experts and novices and between peers. The currently vibrant research on interaction in European CLIL classrooms is based on this central tenet that all kinds of learning, including language learning, are socially situated and of a dialogic nature (see, for instance, the contributions to Dalton-Puffer & Nikula, 2006a; Dalton-Puffer & Smit, 2007). If one adopts such a globally constructivist position, however, it is important to realize that the construction of knowledge via educational dialogue happens in educational institutions under very specific temporal, spatial and human/social conditions.¹ In other words, the CLIL lesson as an oral practice or speech event is an element in the learning process that cannot be disregarded, and it is a short characterisation of this speech event that I now turn to.

Since the specific qualities of institutional discourse have long been recognized (e.g. Drew & Heritage, 1992) and classroom discourse is a particularly well-studied specimen of its kind, we can draw on a consolidated knowledge base regarding classroom talk (e.g. Christie, 2002; Edwards & Westgate, 1994; Mercer, 1995, 1999; Tsui, 1995; Walsh, 2006). I will use Hall's (1993: 152) taxonomy of resources by which oral practices are framed in order to structure my exposition:

Participants

The members of the interaction are teachers and students, a special case of the Expert–Novice relationship, where the Novice is a collective

(the class). Social difference is inscribed *via* institutional status and age. Simultaneously, however, the relationship is often long term and may show a high degree of familiarity.

Setting

School lessons tend to take place in dedicated buildings and dedicated rooms within those buildings featuring characteristic seating arrangements. The interaction between the participants is temporally organised by the rhythm of the typical school-day. Interaction happens in groups that can be rather large in rather small spaces.

Content

The legitimate topics of classroom interaction are determined by the curricula of the respective school subjects; additional topics may serve the smooth running of the institution or the personal well-being of the participants with regard to the task at hand.

Purposes

The purpose of the school lesson is to contribute to the secondary socialisation of the young generation into the cultural practices and cultural knowledge of their society. To pass on and help students construct knowledge, which is deemed relevant in the respective society.

Participation structures

Teacher and students are in a stable non-reciprocal role relationship. Turn-taking rights are unevenly distributed with the right speak automatically returning to the teacher after each student turn.

Act sequence

School lessons have a typical chronological ordering consisting of recognisable phases like e.g. opening, transition, main lesson, closing.

Considering all the factors involved (persons, places, purposes), we may note that the 'social matrix' of CLIL classrooms is actually very well known to the learners because it is much the same as in their other school lessons. This implies that it is also parallel to that of EFL classrooms with the exception of content. It is an important realisation 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 many respects.

Communicative Competence

One of Hymes's often-quoted statements about communicative competence is that possessing communicative competence equals knowing 'when to speak, when not, . . . what to talk about with whom, when where and in what manner' (Hymes, 1974: 227). After decades as a kind of household word in the language teaching profession, the notion is currently being revisited by in applied linguistics and language-teaching circles (e.g. Byrnes, 2006; Kenning, 2006; Leung, 2005). Key points in that discussion are (a) the observation that the notion has been thinned out to mean something like transactional, oral, face-to-face interaction and (b) that it needs not only to be restored to its original complexity but also widened and modernized in order to accommodate aspects of intercultural as well as mediated communication. While a practicable model integrating these new dimensions is still under discussion, I will revisit Canale and Swain's (1980) early model of communicative competence. It has been highly influential because of its explicit ties to concerns of second-language learning and curriculum design and consists of four components (Fig. 11.1).

Linguistic competence concerns knowledge of all aspects of what is traditionally regarded as 'the language system' or 'grammar' and usually concerns aspects of linguistic knowledge up to the sentence level. The elements subsumed under linguistic competence seem to be considered particularly amenable to declarative knowledge, certainly much more so than the other components, where procedural knowledge tends to be the norm. Maybe because of this, linguistic competence is considered the traditional realm of foreign language classes, which are often considered to be less good at providing for the other three components of communicative competence.

Sociolinguistic competence is defined as knowledge of socially and culturally appropriate language use in terms of formality, politeness and interpersonal relations. It is thought to encompass two components: on the one hand, there is appropriateness of form i.e. knowledge of the available linguistic resources (such as indirectness, routines, intensifiers/softeners, etc.); on the other hand, there is knowledge of situational meanings in terms of social power, distance, degree of imposition, face wants and the like.

Discourse competence is most readily recognized as an issue in the written mode and explicit instruction on how to sequence and integrate ideas

Grammatical Competence	Discourse Competence
Sociolinguistic Competence	Strategic Competence

Figure 11.1 A model of communicative competence (cf. Canale & Swain, 1980)

into a unified text is an important part of the curriculum in mother tongue and second-language education. For spoken discourse the awareness that there are specific skills involved in its successful accomplishment is mostly limited to monologues like oral presentations. But the highly complex task of participating in talk-in-interaction actually also falls within this domain.

Strategic competence is concerned with those skills that are necessary to cope with the fact that we do not live in a perfect world of flawless communication. We need these skills for first language interaction, but the most obvious field of application are of course encounters involving participants whose language skills are limited because they are second language speakers.

This model will now be used to evaluate the observable language use of students in secondary CLIL classrooms.

A Reality Check

The empirical context

The following observations on how communicative competence is embodied in CLIL classrooms are based on 40 CLIL lessons which were recorded in Austrian secondary schools (upper and lower secondary) during the years 2001–2003. The lessons were audio recorded and then transcribed, rendering a corpus of approximately 260,000 words (or 29 hours) of spontaneous classroom interaction. All schools belong to the public sector and implement CLIL in different ways. Fully bilingual streams were, however, excluded from the data collection. Participants in the study were 305 students, who attended Grades 6–7 and 10–13 at both general academic and higher vocational schools. That is to say, the lower secondary students were between 11 and 13 years of age, while the upper secondary students were 16–19 years old. Class size varied between 16 and 28, implying that some of these groups were rather large for CLIL purposes. Most of the students spoke German as their first language, but there was a sizeable minority with other first languages including Bosnian/Croatian/Serbian, Turkish, Albanian, Polish and Russian. Apart from the CLIL lessons, the students' timetables invariably include also traditional EFL lessons. Outside school, however, their exposure to the target language is largely limited to listening to music, or to the internet, although up-to-date empirical research on the role of English in Austrian society is currently missing.

Further participants in the study were 10 teachers and two native English speaking teaching assistants. Seven teachers were fully qualified to teach both EFL and a content subject. Three were content-only teachers but had acquired a good foreign language competence via prolonged stays in English-speaking countries. They represented the following

subjects: geography, history and social studies, biology, physics, music, accounting, business studies and economics, tourism management, international marketing. Classroom activities involved group-work, short presentations of group-work results, longer student presentations and observations of small-scale science experiments. However, the dominant mode of interaction in virtually all lessons was whole-class discussion, featuring the characteristic sequences of teacher initiation, student response and teacher follow-up.

Linguistic competence

In order to achieve a full evaluation of CLIL students' lexico-grammatical competence an outcome-oriented research design would of course be necessary but I believe that a useful perspective on grammatical competence can also be gained with a discourse analytic methodology, if one focuses specifically on student output.

In a quantitative error analysis employing the categories grammar, vocabulary and pronunciation (Dalton-Puffer, 2007) I have shown that the most frequent error type are lexical errors, followed by pronunciation, with grammatical errors only in third place. What can be read from this is that the context of the content subject stretches students' lexical abilities to an extent where they (1) exhibit frequent lexical gaps and (2) make explicit attempts at filling them. The regularity with which lexical gaps are openly acknowledged and repair is initiated by the student who made the error is noteworthy and constitutes a marked difference to typical EFL classrooms. This is of course an issue which also feeds directly into strategic competence.

When asked what seem to be the main language gains of students through CLIL teaching, teachers consistently mention 'vocabulary' in first place. An informal paper and pencil survey conducted during a conference presentation for CLIL teachers brought the same results (TEA Conference, October 2003). One of the participating teachers made the following comment:

Extract 1. Teacher comment

es laufen ihnen einfach wörter wie assume dauernd über den weg und dann verwenden sie sie ganz selbstverständlich in ihren englisch-chaufsätzen

//they just come across words like assume all the time and then they just go and use them in their english essays// (Teacher comment noted from memory; fieldnotes)

For pronunciation errors there is a trend for them to occur in complementary distribution to vocabulary errors. That is to say, in phases of classroom discourse where there are numerous lexical errors the incidence

of pronunciation errors is relatively low and vice versa. The mediating factor here is clearly activity type: sequences with many pronunciation errors are typically student presentations (almost the only situation where student utterances are non-minimal). Teacher-directed whole class discussion, the dominant mode of interaction in the data, actually offers little opportunity for students to make pronunciation mistakes, the reason being that they do not say very much.

The same circumstance is also responsible, in my view, for the low incidence of grammatical errors in the data. I would like to argue that because of the typological characteristics of English with its rudimentary case and number marking system, it is actually difficult to make mistakes in minimalist realisations of the response slot in initiation/response/follow-up discourse. On the other hand, if the medium of instruction is a language with a rich inflectional system, even minimal responses tend to require marking for case, number, person, inflectional class and agreement. The incidence of grammatical errors is thus likely to be higher if CLIL is conducted in French, for instance (see results for French immersion in Canada, Lyster, 1998). Beyond the level of single phrases, the structure of in-class communication with its dominance of minimalist student responses rarely stretches the students' resources to the extent that they are forced to go beyond safe territory. The largely scripted speech of student presentations has the same effect and it is therefore difficult to say where strengths and weaknesses of students' morphosyntactic competence actually lie. Additionally, the absence of extended teacher monologues means that the syntactic patterning available in the input is also relatively uniform and dominated by interrogatives.

Having bluntly stated that English inflection is so non-existent that mistakes are basically impossible, I may be criticised for ignoring the number one 'problem-child' in this area, the third person -s. The interesting thing about it in CLIL classes is that it does not seem to be a problem even with the younger students. I am, therefore, inclined to speculate that in the case of the third person -s the increased exposure does indeed lead to the necessary degree of entrenchment which brings about automatisa-tion of this notorious inflectional marker. It would be interesting and highly relevant for educational planning to determine empirically just how much exposure and practice is necessary to bring about this effect.²

In sum, the grammar-related findings suggest an interesting conclusion. Given the high incidence of lexical errors on the one hand and the fact that lexical learning is ranked top for language gain through CLIL on the other, one can only conclude that most learning seems to take place where most mistakes are made. Whether there is a causal connection between the two is a matter of theoretical persuasion but the fact as such remains and I would like to suggest that students should maybe be given more 'chances' to make syntactic errors as well.

Sociolinguistic competence

In this section I will pay particular attention to sociolinguistic competence as embodied in the performance of directives and repairs, as these phenomena are particularly frequent in classroom interaction.

With regard to repairs it can be said that classrooms are definitely places where repair can be experienced, possibly more so than in many other situational contexts. In terms of the overall repair rate the CLIL classes do not seem to be radically different from child-directed speech in naturalistic L1 acquisition. Even though no direct comparisons with EFL lessons were made, evaluations and comments on part of the participants suggest that this repair rate is lower than in average EFL classes. This circumstance is repeatedly cited as an asset of the CLIL situation and is held to be a major factor in students' motivation to talk freely. It is, however, an unsolved empirical question whether this lower repair frequency is factual, or whether it rests on a different distribution of repairs over different categories.

Regarding the question of how repair is conducted, there is a preference for the involvement of 'self' which parallels the tendencies in non-educational talk, but the fact that classroom-type repair (other-repair or other-initiated repair) is also present cannot be argued away and strange classrooms these would be if it was otherwise. The specific classroom conditions mean that repair is direct, with little linguistic modification in evidence. According to Day *et al.* (1984) something similar happens in dyads of friends (native and non-native) and it is likely that the factors of familiarity and stability of the relationship play an important part in explaining both results. Additionally in classrooms, there are fixed participant roles which are not in need of constant negotiation. For the distribution of the redressive moves which *are* present, special classroom conditions hold as well. For instance, they are tied to an underlying consensus about who has privileged access to which part of reality. Teachers are apparently construed as having privileged access to subject-content information but not necessarily to procedural information: this has an effect on repairs in so far as repairs of utterances about procedure show relatively more redressive action than repairs of utterances about instructional content. Repair of actual linguistic errors occupies a space in between. This is something which is possibly different in EFL classes, where language errors probably count as subject content.

In pointing out the special conditions which hold in classrooms, I am not arguing that students will necessarily directly transfer the rules of use which they experience in the classroom to other situational contexts. They are too smart for that, I believe. Rather, what I am arguing is that the role-distribution puts narrow limits on their room for manoeuvre in the interaction. Students engage in very little active trouble-shooting. They may

call for help with their own lexical gaps but there is very little evidence of students demanding clarification from other interlocutors, least of all the teacher. Other social aims (not to rock the boat or call too much attention on oneself) probably stand in the way of this. In general, classroom discourse is a place where open breakdowns of intersubjectivity are avoided at all cost. There are few contexts where such a high degree of tolerance for building shared understanding is present; others would be dyads of caretakers and very young children, or caretakers and very old people. Teachers and students may be practising tolerance for different reasons (student: 'I want my peace and quiet'; teacher: 'I don't want to appear destructive but empowering') but the effect is that the comprehensibility of interlocutors' turns is very rarely challenged (on conversational challenges see also the section on Discourse Competence). I consider it unlikely that such a mix of indifference and highly cooperative listening is to be found in many other communicative contexts. On the contrary, students will frequently find themselves in a situation where they do not completely understand utterances of their interlocutors and where they do care about that.

With regard to directives, the asymmetrical character of classroom interaction is even more clearly visible. While students are exposed to numerous directives uttered by the teacher, they very rarely make such utterances themselves. In this respect the CLIL classroom does have the character of a language bath: there is plenty of exposure but little active use. It is hard to envisage where a difference between EFL and CLIL classes should lie in this respect, but this is a question which awaits further empirical work. The asymmetry of classroom interaction is relevant also for the question of how much redressive action is necessary in directives. In a comparison of Austrian and Finnish classroom directives it turned out that the former showed a higher incidence of redressive discourse modifiers (increasing with the age of the students) (Dalton-Puffer & Nikula, 2006b). It thus seems that characteristics of the surrounding L1 culture (high value on indirectness) provide Austrian CLIL students with input that resembles interaction among equal but distant adults more closely than the input available in Finnish classrooms (with regard to directives). This, however, does not alter the fundamental characterisation of classroom directives as direct.

A further distinction is highly relevant to the educational setting, namely that between demands for information and demands for action. Curricular content information occupies a central role as the 'commodity' which is traded by the institution and there seems to be a consensus in operation which says that demands for it have a low imposition value and can therefore be direct. Demands for action or for information pertaining to the level of classroom management, on the other hand, exhibit a greater likelihood of being redressive. This in my view throws into relief two

aspects in which classrooms differ systematically from other types of interactions (institutional and informal). Firstly, the privileged status of curricular information or content and secondly, one particular implementation of the expert–novice relationship.

In sum, this means that with regard to the sociolinguistic competence which can be experienced and exercised, CLIL classrooms have no discernible advantage over EFL classes. In both cases, the participants are acting within a classroom situation and I would argue that the two can be considered the same in this respect. It may, however, be the case that more skills-oriented and creative CLIL subjects (e.g. arts, crafts, technology) not covered in this study show more variation on the patterns of social interaction than that observed in EFL and content-oriented CLIL classes.

Discourse competence

For some commentators discourse competence actually represents the core competency in the Canale and Swain framework since it is ‘where everything else comes together’ and all the other competencies are realized (Celce-Murcia & Olshtain, 2000: 16). This is of course true in the sense that the other competencies can hardly be observed independently of a specific discourse.

With reference to the central skill involved in this competence, that is, the ‘sequencing and arrangement’ of elements into coherent texts, one is inclined to think of the written medium in particular. This may be due to the fact that writing does indeed require more independent sequencing decisions on the part of the language user than does speaking. At this point, I need to point out that the CLIL students’ written discourse competence remains outside the scope of the present discussion. Importantly, this is not merely a matter of ‘limiting the focus of this study’ in a conventional sense, but a fact built into the reality which is being studied. Writing quite simply plays only a minute role in the CLIL classrooms investigated here: other than some note-taking there is none in evidence. I think the importance of this realization concerning the teaching-learning arrangements in content-classrooms and their linguistic dimension should not be underestimated.

But discourse-integrative demands are of course operative also on the spoken level. Awareness of these demands on conceptual integration and sequencing is present mostly where the speaking proceeds in a monologue, that is, in the case of student presentations. The classrooms studied show that oral presentation skills have gained recognition as an important aspect of oral discourse competence and are accorded a place in the instructional practice of many school subjects. Apart from these special occasions, the regular challenge for CLIL students is to participate in an extended ongoing interaction and to use the foreign language for doing it. This is one of the foundations of the pro-CLIL argument: language learning through

participation in a real communicative event. In the present context I would like to draw attention to the fact that the interaction itself and the speech event it represents are not 'foreign' at all. The classroom is the students' daily workplace with which they are very familiar. Even the youngest participants in the study had been socialized into how school-lessons work for more than five years before the onset of the study and I would claim that they also (not only the older ones) can claim to be 'experts' in classroom discourse. A discourse competence which is already well-established is thus re-enacted in the foreign language.

Turning to the specific spoken discourse skills that are generically required by classroom talk, I want to briefly review turn-taking, topic-nomination, conversational challenges and repair. The turn-taking mechanism and distribution of speaking rights which are in force in the classroom are a specific form of 'group discussion in institutional interaction': the distribution of turns is in the hands of the teacher much as it is in the hands of the head of a committee. In other words, self-nomination, deciding when to speak, fighting for the floor and ceding speaking rights are not activities which are part of the student's role repertoire in whole-class interaction. On top of being the discourse manager the teacher is also the main provider of topics and information so that by the same token, topic nomination and steering the talk in a certain direction are largely outside the scope of student talk, at least as long as officially sanctioned topics are concerned. There are of course subtle student strategies in order to lead teachers off topic and subvert their plans but these are hardly part of the officially sanctioned discourse; and they are also reactive rather than pro-active.

Examining more closely the students' reactive role, it turns out that it is also limited in the number of choices it provides speakers if they want to stay within the circumference of their role. I make reference here to Eggins and Slade's (1997: 200–213) taxonomy of reacting moves in casual conversation. The main distinction made by Eggins and Slade is between sustaining moves and rejoinders, the former being reactions which move an exchange forward towards completion, the latter being moves which 'interrupt, postpone, abort, or suspend the initial speech function sequence' (Eggins & Slade, 1997: p. 207). It almost goes without saying that sustaining moves and supportive ones at that (elaborate, extend, comply, answer, agree, etc.) are the most typical student utterance in average classrooms, while the teachers' repertoire also comprises supportive rejoinders (check, confirm, clarify, resolve, repair). For both groups of speakers confrontative realisations of moves (no matter whether sustains or rejoinders) are a much less frequent occurrence (e.g. decline, withhold, disagree, contradict; challenge, counter, refute, re-challenge). Even so, it is clear that the teacher role allows more room for manoeuvre also in this area. Whether this space is also occupied by the individual teacher is a different matter. As for the students, with the exception of 'withhold' and perhaps 'decline'

the data contain practically no instances of confrontative realisations. There is one incident in the 40 lessons where a student formulated a contradiction, which, significantly was announced as a 'I have a question':

Extract 2. CLIL Music, grade 10

- 1 Sm ich wollte was fragen
//I wanted to ask something//
- 2 TG ja bitte
//yes please//
- 3 Sm da is ein widerspruch, dass er zuerst sagt ah das is eben nich also das is- für gutheissen kann, dass die rockmusik in den 60er jahren in das musikalische theater einbricht und dann meint er, dass man nicht herumexperimentiert. ich mein ich denke wenn die rockmusik neu ist, ist das schon irgendwie rumexperimentieren.

//there is a contradiction, that he first says er this is not- err this is- he resents that rock music explodes on the music stage in the 1960's and then he says that people aren't experimenting etc. [...]

The classrooms investigated, then, are not places where it is customary for speakers to challenge each other's contributions. Closely related to this are the findings concerning repair: whole class discussion does not include a student-right to act as 'other' in a repair sequence (to initiate or carry out the repair). In sum, the dominant pattern in CLIL classroom interaction associates active interactional work with the teacher and the passive, responding role with the student. Such a division of labour is of course also to be found in other institutional interactions, and even in informal conversation, but in the latter the active and passive roles are free to shift within the same interaction.

Strategic competence

Even if competence on the other three competence levels is highly developed, there will always be situations where knowledge gaps arise or where the communication between interactants runs into problems, and this holds for both L1 and L2 interactions. Also for competent adult speakers 'communication problems' are a normal part of their language experience and the likelihood of breakdowns increases when the situational context is new to the participants or where interactants are new to each other. Since the last two conditions do not hold in school lessons, this reduces their problem-potential even though an imperfectly known foreign language is in use.

Communication strategies have received a good deal of attention in second language learning research since the early 1980s and a number of detailed taxonomies have been developed (Corder, 1983; Faerch & Kasper, 1983; Tarone, 1983). All of them share a differentiation into strategies that manipulate meaning and strategies that manipulate form (cf. Bialystok, 1990: 34). It is on this level that I will consider the CLIL classrooms investigated.

Strategies manipulating the intended meaning basically operate on a continuum from changing the intended message via reducing it to actually abandoning the message or avoiding the topic altogether. Considering the way in which classroom discourse is generally structured, it is in fact not difficult for an individual student to practice total topic avoidance while the discourse as such is being carried on by other members of the group. It is rather easy in a classroom to remain silent, something which is much more difficult in situations where one enacts an individual rather than a collective role. This is of course different once the teacher has nominated a specific student: now she must speak and the pressure to say something is high. Not infrequently, student responses are only vaguely related to the teacher initiation (a fact which is sometimes commented on with dismay by teachers) and I suspect the students mostly know this but prefer to say anything at all rather than remain silent. In the terms of communication strategies, they practise message replacement. Of course students are also self-motivated to say something in class and a very interesting issue in this connection would be to look at in how far meaning reduction impinges on the contributions to open-ended classroom discussions, this being a frequent concern of content-subject teachers (cf. Gefäll & Unterberger, 2007; Pal, 2007; Wiesemes, 2007).

With regard to communication strategies manipulating form, the focus of research has been on the lexicon, that is how L2 learners cope with lexical gaps. This is appropriate for the present data because learners' resources on the level of syntax do not tend to get stretched to the extent that they would need to resort to communication strategies to any noticeable extent. With regard to lexical gaps, then, two main strategies have been distinguished (Bialystok, 1990: 110ff; Kellerman *et al.*, 1987): holistic strategies which replace a term by another more general term (*bird* to stand for *sparrow*) and analytic strategies which operate by way of description and circumlocution (*It's small and you can find it in every city park* for *sparrow*). A global observation on the data in this respect is that one finds teachers employing such strategies much more often than the learners. I take this as yet another indication of the role differential between the two kinds of participants in the CLIL classrooms. Given their role as *primary knowers* the teachers are under 'real-life pressure' to make themselves understood even if they do not have the appropriate word ready at hand, as they have little opportunity to appeal to some 'knowing authority' for help, unless a

language expert co-teacher is present. Given their decision to conduct their lessons in English, the teachers also seem reluctant to resort to L1 switches as a shortcut when lexical gaps arise. The learners on the other hand, tend to do just that: they often say things they do not know in German or they acknowledge that a lexical gap exists, which is usually filled straight away by the 'primary knower', occasionally also by their peers. Both circumstances, the presence of someone who in all likelihood already anticipates exactly what one wants to express, and the availability of another shared code, the L1, are conditions which do not hold in this form outside CLIL classrooms and therefore give a very specific slant to the realisation of strategic competence.

And what about intercultural competence?

In CLIL rationales like the ones produced by the CLILCOM think-tank, the culture dimension is accorded an integral position among the most important factors feeding into and emerging from CLIL programmes. As can be seen from the quotation below, it is specifically the intercultural plane which is given prominence in published rationales:

The Culture Dimension-CULTIX

A. Build intercultural knowledge & understanding

B. Develop intercultural communication skills

(www.clilcompendium.com; October 2007)

Simultaneously, the rekindled debate on defining communicative competence has been particularly lively regarding intercultural communication (e.g. Byram, 1997; Kramsch, 1993, 2006). Especially Kramsch has argued that the current understanding of communicative competence as the capacity to solve problems and complete tasks speedily and effectively needs to be redefined because:

what often needs to be negotiated nowadays is not how to achieve the task, but the nature and the purpose of the task itself [...] (Kramsch, 2006: 250)

...because, presumably, in many multicultural encounters today a common understanding of what is at issue does not routinely pre-date the actual encounter and has to be negotiated by the participants themselves as the interaction unfolds.

What, then, is the situation in the CLIL classrooms investigated as well as in CLIL at large?

A case has indeed been made for regarding L2-medium teaching as a kind of launch-vehicle for importing external cultural concepts, values and the like. In her ethnographic study on Hungarian CLIL history lessons, Duff (1995, 1996) noted the absence of a traditional Hungarian

recapitulation ritual (*H felelesz*) if the lessons were conducted in English. Her interpretation connected this to the then ongoing dramatic changes in Hungarian politics and society after the breakdown of Communism (the data were collected in the early 1990s), where doing things in English would stand for doing things in a 'Western-democratic way', which in the case of the lessons meant abandoning the rote recitation of facts, and replacing that by more self-directed forms of student participation. Under the unique circumstances of Hungary in the early 1990s of the 20th century this interpretation was perhaps justified but the same extent of cultural influence cannot be expected in all CLIL contexts.

With regard to the Austrian classrooms investigated, for instance, we already observed above the participants' familiarity with classroom discourse in a general sense. But this familiarity, I would argue, goes further: these are *Austrian* classrooms sharing most, if not all, of their characteristics with other Austrian classrooms conducted in the L1. Using English does not automatically transport the event into a different cultural context, even though this is aspired to by some stakeholders. Rather, I think, a reference frame more appropriate to evaluating the cultural issues involved in CLIL is to be found in the *English as a Lingua Franca* (ELF) field (cf. Seidlhofer, 2007; Smit, forthcoming). Naturally CLIL classrooms are not exactly like typical ELF situations in that the participants do share a language code in addition to English. But there is also an important parallel to ELF, namely the fact that *English as a native language* (ENL) may be totally absent as a reference point. As pointed out above, the extent to which this is the case of course varies depending on the degree of native-speaker teacher involvement in a concrete CLIL model. What can be said with certainty, however, is that CLIL will not enculturate the participant students into 'native English speaking classrooms', as was implied by an educational administrator during an informal interview. I have found indications that some kind of 'transcultural flow' takes place where teachers with a multicultural educational experience or a multicultural identity are involved, or where native speaker assistant teachers are a regular classroom feature, but such settings are the exception rather than the rule (cf. Dalton-Puffer, 2007: 165–167, 202–203). A learning space for intercultural competence is thus not automatically present in CLIL classrooms. It can be *created* but this requires deliberate pedagogical measures, which, I would claim, are not necessarily bound to teaching through the medium of a foreign language.

Conclusions

My main argument in this chapter, then, has been that under a constructivist and participatory perspective second language learning takes place within a larger sociocognitive whole, that is, a *discourse*. With regard to language learning in CLIL the central speech event in this discourse is

the school-lesson, where the learners, like the participants in any other discourse, talk – act – interact – think – believe – value – write – read – listen (cf. Gee, 1992) and in doing this build and expand their personal communicative competence (cf. the quotation serving as a motto for this chapter). As I have shown in this chapter, CLIL learners do so under the specific conditions of their local classroom with its clear distribution of expert and novice roles entailing a specific turn-taking and topic nomination mechanism, idiosyncrasies in the realisation of repair and directives, limits on meaning negotiation and conversational challenge, quantitative and structural limits on student output, dominance of a small number of speech functions (statement-representatives, directives) to the virtual exclusion of others (commissives, emotives) (cf. Dalton-Puffer, 2007). It is necessary to recognise that CLIL classrooms are one specific variant of a more general educational context which cannot be expected to ‘prepare’ learners for other situational contexts in any direct way. This conclusion will also remain valid if the communicative competence concept emerges in a new shape from the currently ongoing discussion (Byrnes, 2006; Kenning, 2006; Leung, 2005).

If we take this realisation on board we need to pursue new research questions with regard to whether and how well spontaneous transfer to new situations works and whether or not CLIL students have a task-specific advantage in this respect over learners who have been taught only traditional EFL lessons. A further consequence would be to seriously consider the benefits (or not) of explicitly teaching interpersonal language functions that are absent from classroom interaction. Interlanguage pragmatics has in recent years provided a good deal of evidence that such benefits can indeed be observed (Bardovi-Harlig & Mahan-Taylor, 2003; Rose & Kasper, 2001). Finally, CLIL also needs to start considering a further issue: namely whether teaching arrangements in CLIL lessons could perhaps be designed in such a way that they provide for a wider array of (assumed or played) roles.

In sum, the conditions of classroom talk necessarily impose restrictions on all aspects of communicative competence acquired and practiced in CLIL. The positive side of this restrictedness is that CLIL students can rehearse participation in L2-talk-in-interaction under simplified conditions because of their high familiarity with the context and its discourse rules. This may in fact be the cause for the commonly observed lack of speaking-anxiety in CLIL students. Both these realizations should find their way into statements about the language goals pursued *via* CLIL education.

Notes

1. This is nothing but what Hymes referred to as *social matrix*. Cf. ‘Within the social matrix in which it acquires a system of grammar, a child acquires also a system of use regarding persons, places, purposes, other modes of communication, etc.’

- all the components of communicative events, together with attitudes and beliefs regarding them' (Hymes, 1974: 75).
2. Cf. Ruiz de Zarobe (2007), who found no noticeable effect of two weekly CLIL lessons over two years on this parameter.

References

- Bardovi-Harlig, K. and Mahan-Taylor, R. (eds) (2003) *Teaching Pragmatics*. Washington, DC: US State Department. On WWW at <http://exchanges.state.gov/education/engteaching/pragmatics.htm>.
- Bialystok, E. (1990) *Communication Strategies: A Psychological Analysis of Second-Language Use*. Oxford: Blackwell.
- Byram, M. (1997) *Teaching and Assessing Intercultural Communicative Competence*. Clevedon: Multilingual Matters.
- Byrnes, H. (ed.) (2006) Perspectives. *The Modern Language Journal* 90 (2), 244–266.
- Canale, M. and Swain, M. (1980) Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics* 1, 1–47.
- Celce-Murcia, M. and Olshtain, E. (2000) *Discourse and Context in Language Teaching. A Guide for Language Teachers*. Cambridge: Cambridge University Press.
- Christie, F. (2002) *Classroom Discourse Analysis. A Functional Perspective*. London, New York: Continuum. www.clilcompendium.com [October 2007]
- Corder, S.P. (1983) Strategies of communication. In C. Faerch and G. Kasper (eds) *Strategies in Interlanguage Communication* (p. 193). London: Longman.
- Dalton-Puffer, C. (2007) *Discourse in CLIL Classrooms*. Amsterdam: Benjamins.
- Dalton-Puffer, C. and Nikula, T. (2006a) Current Research in CLIL 1. *Vienna English Working Papers (VIEWS)* 15 (3), 4–7.
- Dalton-Puffer, C. and Nikula, T. (2006b) Pragmatics of content-based instruction: Teacher and student directives in Finnish and Austrian classrooms. *Applied Linguistics* 27, 241–267.
- Dalton-Puffer, C. and Smit, U. (eds) (2007) *Empirical Perspectives on CLIL Classroom Discourse* (pp. 275–290). Frankfurt: Peter Lang.
- Day, R., Chenoweth, N.A., Chun, A. and Luppescu, S. (1984) Repair techniques in native–non-native conversations. *Language Learning* 34, 19–45.
- Drew, P. and Heritage, J. (eds) (1992) *Talk at Work*. Cambridge: Cambridge University Press.
- Duff, P. (1995) An ethnography of communication in immersion classrooms in Hungary. In K.A. Davis and A. Lazaraton (eds) *Special-Topic Issue: Qualitative Research in ESOL. TESOL Quarterly* 29, 505–538.
- Duff, P. (1996) Different languages, different practices: Socialisation of discourse competence in dual-language school classrooms in Hungary. In K.M. Bailey and D. Nunan (eds) *Voices from the Language Classroom. Qualitative Research in Second Language Education* (pp. 407–433). Cambridge: Cambridge University Press.
- Edwards, A.P. and Westgate, D.P.G. (1994) *Investigating Classroom Talk* (2nd edn). London and Washington D.C: Falmer Press.
- Eggins, S. and Slade, D. (1997) *Analysing Casual Conversation*. London: Cassell.
- Faerch, C. and Kasper, G. (eds) (1983) *Strategies in Interlanguage Communication*. London: Longman.
- Gee, J.P. (1992) *The Social Mind*. London: Bergin and Garvey.
- Gefäll, C. and Unterberger, B. (2007) The Vienna Dual Language Programme: An Evaluation of Year 1 (2006/07). Unpublished research report, University of Vienna.

- Hall, J.K. (1993) The role of oral practices in the accomplishment of our everyday lives: The sociocultural dimension of interaction with implications for the learning of another language. *Applied Linguistics* 14, 145–166.
- Hall, J.K. (1995) 'Aw, Man Where You Goin'?' Classroom interaction and the development of L2 interactional competence. *Issues in Applied Linguistics* 6, 37–62.
- Hymes, D. (1974) *Foundations in Sociolinguistics. An Ethnographic Approach*. Philadelphia: University of Pennsylvania Press.
- Kellerman, E., Bongaerts, T. and Poullisse, N. (1987) Strategy and system in L2 referential communication. In R. Ellis (ed.) *The Social Context of Second Language Acquisition*. Englewood Cliffs, NJ: Prentice-Hall.
- Kenning, M-M. (2006) Evolving concepts and moving targets: Communicative competence and the mediation of communication. *International Journal of Applied Linguistics* 16, 363–388.
- Kramersch, C. (1993) *Context and Culture in Language Teaching*. Oxford: Oxford University Press.
- Kramersch, C. (2006) From communicative competence to symbolic competence. *The Modern Language Journal* 90 (2), 249–252.
- Krashen, S.D. (1985) *The Input Hypothesis*. London: Longman.
- Leung, C. (2005) Convivial communication: Recontextualizing communicative competence. *International Journal of Applied Linguistics*, 15 (2), 119–144.
- Lyster, R. (1998) Negotiation of form, recasts, and explicit correction in relation to error types and learner repair in immersion classrooms. *Language Learning* 48, 183–218.
- Lyster, R. (2007) *Learning and Teaching Languages through Content. A Counter Balanced Approach*. Amsterdam etc.: Benjamins.
- Mercer, N. (1995) *The Guided Construction of Knowledge*. Clevedon: Multilingual Matters.
- Mercer, N. (1999) Classroom language. In B. Spolsky (ed.) *Concise Encyclopedia of Educational Linguistics* (pp. 315–319). Amsterdam: Elsevier.
- Pal, D. (2007) The Role of L1 in Lower Secondary CLIL Classes. MA thesis, University of Vienna.
- Rose, K. and Kasper, G. (eds) (2001) *Pragmatics in Language Teaching*. Cambridge: Cambridge University Press.
- Ruiz de Zarobe, Y. (2007) CLIL in a bilingual community: similarities and differences with the learning of English as a foreign language. In U. Smit and C. Dalton-Puffer (eds) *Current Research in CLIL 2*. (Special Issue of VIEWS). *Vienna English Working Papers* 16 (3), 47–52. On WWW at http://www.univie.ac.at/Anglistik/ang_new/online_papers/views.html.
- Seidlhofer, B. (2007) Common property: English as a lingua franca in Europe. In J. Cummins and C. Davison (eds) *International Handbook of English Language Teaching* (pp. 137–153). New York: Springer.
- Smit, U. (forthcoming). *English as a Lingua Franca in the Classroom. A Discourse Pragmatic Ethnography*. Berlin etc: Mouton de Gruyter.
- Tarone, E. (1983) Some thoughts on the notion of 'communication strategy'. In C. Faerch and G. Kasper (eds.) *Strategies in Interlanguage Communication* (pp. 61–74). London: Longman.
- Tsui, A. (1995) *Introducing Classroom Interaction*. London: Penguin.
- Walsh, S. (2006) *Investigating Classroom Discourse (Domains of Discourse)*. London: Routledge.
- Wiesemes, R. (2007) Developing methodology for CLIL classroom research: A case study of a CLIL classroom where the Holocaust is taught. In C. Dalton-Puffer and U. Smit (eds) *Empirical Perspectives on CLIL Classroom Discourse* (pp. 275–290). Frankfurt: Peter Lang.

Chapter 12

CLIL in Social Science Classrooms: Analysis of Spoken and Written Productions

RACHEL WHITTAKER and ANA LLINARES

Introduction

The learning context

In the last few years, a number of Spanish autonomous communities have started projects integrating the teaching of a foreign language and that of certain content subjects.¹ One of these projects, signed in 1996, is the result of an agreement between the British Council and the Spanish Ministry of Education (MEC)² in which a number of schools (10 primary and 10 secondary state schools only in the Madrid Autonomous Community) were to be taught in a partially integrated English/Spanish curriculum. All the children are taught English as a foreign language, Social Science in English and a third subject that depends on the availability of specialists able to teach their subject in English.

The schools that started teaching English at the preschool level, and continued with Content and Language Integrated Learning (CLIL) in primary school, are now at the point where these groups of early learners are starting secondary school, and so are being faced with the challenge of learning not only more advanced content but also the specialised language of the disciplines required at this level, in a foreign language. Research (e.g. Christie, 1998; Martin, 1993a, 1993b; Rothery, 1996; Veel & Coffin, 1996) has shown that this is a key moment for students learning subjects in their mother tongue, as language no longer represents events iconically and in everyday lexis but becomes much more abstract, more distanced from the events described, not only lexically but also grammatically (Halliday, 1989a; Halliday & Martin, 1993). For students learning in a foreign language, this new type of language use may pose an additional problem.

An awareness of the problem of language is shown in the preliminary guidelines produced by the British Council and the Spanish Ministry of Education (MEC)³ for subjects to be taught in English. These main guidelines are only developed with respect to technical vocabulary, so that the curriculum for the teaching of social science in English includes a list of lexical items related to each topic but few other linguistic orientations (grammar, discourse). The teachers themselves at secondary school are usually content specialists with a high command of the foreign language, but no training on how to teach content in a foreign language. In this new context, then, teachers need information with respect to the language that the students bring to the subjects they are learning in English, and the language demands that these subjects make on them, that is, on linguistic needs and abilities in the CLIL classroom. Some disappointing results of content-based teaching have been, tentatively, put down to lack of attention to language (Swain, 1990).

The UAM-CLIL project and its general aims

At the most general level, the aim of the UAM-CLIL research project⁴ is to provide information for Spanish secondary school teachers, as well as for the administration, to help them in the process of setting up projects in which different subjects in the curriculum are taught through English. For these students, learning the language of the discipline is not supported by previous knowledge of everyday terms to begin to talk and write about the academic topics, as we said. In our study, we wanted to see how the transition to academic knowledge and language is dealt with by teachers and pupils in CLIL contexts.

With this objective, we set out to analyse the language used in the classroom, focusing on the students' spoken and written production in the social science syllabus (at this level Geography and History) in two state secondary schools that follow an integrated curriculum. For this kind of linguistic analysis, which links language and context, it is important to look at specific subjects and genres and the linguistic features that appear in their spoken and written texts. In order to know the input the students receive, we are also analysing the language of the textbook and of the teacher on the same topic. These sources give us the type of spoken interaction in which the learner is expected to perform, and the register required.

The project started in the academic year 2005–2006, in the first year of the four-year Obligatory Secondary Education cycle (ESO), with 11–12-year-olds. We have also collected data from classes studying the same topic in their mother tongue, Spanish, as well as from native speakers of English of the same age.⁵ We plan to follow the CLIL groups through the four years of ESO, to be able to offer a picture of achievement at school leaving age in our groups.

Theoretical Background

We are working in the framework of Systemic Functional Linguistics (SFL), a model which has a long tradition of application to education and educational research, first in the English mother tongue context in Britain (since the publication of Halliday *et al.*, 1964; see Halliday & Hasan, 2006 for a personal record of the early projects), later in English as a Second Language (ESL) contexts, especially in some areas of Australia, USA, Canada and South Africa, including those where a non-standard variety of English is the student's first language, and a standard variety is only learnt at school (e.g. Christie, 1998, 2002; Foley & Thompson, 2003; Martin & Rothery, 1986; Mohan, 1986; Rothery, 1994, 1996; Schleppegrell, 2004; Schleppegrell & Colombi, 2002; see Cope & Kalantzis, 1993 and Veal, 2006 for overviews of these later projects), and more recently in English as a Foreign Language (EFL) learning contexts around the world (e.g. for Spain: Barrio, 2004; Llinares, 2006; Martin & Whittaker, 2005; Romero & Llinares, 2001).

This grammar provides a model within which to study language in use, allowing us to explain the features of the language produced in a specific context, through Halliday's hypothesis of the metafunctions (e.g. Halliday, 1989b), and their role in the construction of register and genre.⁶ In our CLIL classrooms, we are studying the way language is used for learning, which involves spoken interaction to achieve pedagogic goals, and the comprehension and production of written texts as part of those objectives – that is, text and discourse production and reception in specific contexts. Halliday's systemic grammar was written specifically for those who are studying grammar for the purpose of text analysis (Halliday, 1985) and has been used for the analysis of discourse in classroom contexts since the ground-breaking work by Sinclair and Coulthard (1975). It is a grammar, then, that is capable of making explicit the way texts mean what they do, and so has been used extensively in work on literacy in English. This quality of explicitness is especially needed in our EFL context, both for analysis of production and for pedagogical intervention (see chapters in Whittaker *et al.*, 2006 for examples of recent classroom applications of SFL).

Here, for our research purposes, the SFL model allows us to select and compare features of interlanguage production, identify problems and propose solutions. Although input is becoming more and more multi-modal, teaching and learning in the classroom takes place mainly through spoken interaction and the source of knowledge and the evaluation of learning uses to a great extent the written text. Our CLIL pupils have to learn to interact and produce texts in the foreign language, and, in order to guide them towards this goal, we need to know how these interactions and texts are realised in language. Researchers in SFL have been involved for a number of years in analysing classroom genres (e.g. Christie & Martin, 1997; Rothery, 1994), including those of secondary school History and

Geography (e.g. Coffin, 2000, 2006; Veel & Coffin, 1996; Wignell *et al.*, 1993), which means we have available descriptions of texts and their features in the discipline we have chosen to study. Finally, an important requirement for CLIL projects is the evaluation of achievement – in which content and language are inextricably linked. As regards the language needed for different moments in the curriculum, some guidelines can also be found in SFL, prepared specifically for ESL pupils (Polias, 2003; Polias & Dare, 2006), and allowing evaluation of development of the genres and registers at different educational levels.

The Present Study

Subjects and data

We are working in two classes in two state schools (referred to as CA and CB in the data presentation) situated in different socioeconomic areas in Madrid: CA is in an area that draws children of professionals, CB has intake from lower middle-class families. In the social science classes, the teacher in CA is a graduate in both History and English, although her professional experience before volunteering to participate in the CLIL teaching has been in EFL, the other (CB) has a degree in History and a good knowledge of English. In this chapter we look at three types of data: spoken interactions in whole class discussions, where we compare features of the teacher's discourse with her students' productions, the language of 10 students in oral interviews, and finally, written texts by these same 10 students. This gives the reader a picture of both general classroom production, and specific information on individual students – especially those who may be less likely to intervene in the whole class sessions, and who represent the achievement of weaker students, since the participants in the interviews were chosen by their teachers to represent three different levels of oral proficiency in the classes: good, average and poor. Two pupils for each level from each class took part in the interviews. However, one student missed the one composition task, so his data and that of a pupil in the same proficiency bracket had to be eliminated. Table 12.1 shows the structure of the section of the corpus analysed here.

The prompts and the syllabus

To obtain comparable data in both registers, the prompts aimed at eliciting that the students' spoken and written production were very important. These prompts were designed by the researchers after a study of the syllabus, and in consultation with the teachers. As regards the selection of the topics, we were looking for two themes at appropriate stages in the school year, which, according to their teachers, motivate the students.

Table 12.1 Corpus

	<i>Spoken</i>			<i>Written</i>
	<i>Teachers: discussion</i>	<i>Students: discussion</i>	<i>Students: interview</i>	<i>Students: texts</i>
Geography	CA	CA	CA-5	CA
	CB	CB	CB-5	CB
History	CA	CA	CA	CA
	CB	CB	CB	CB

We feel the teachers are the key to the success of this type of project, and their opinion was paramount. We wanted to give tasks for which the students were prepared, on topics they enjoyed, to make sure that there would be sufficient production, both spoken and written. The teachers used the prompts to guide them in the classroom discussion session, as did the researchers in the interviews. For the writing tasks, the students were given the prompt as it appears below. The study is exploratory, and does not have a pre- and post-task design.

The prompts were based on the objectives of the preliminary syllabus, which for both sub-disciplines proposes that students should learn more than sets of facts. The approach to geography should help them take an interest in their surroundings and be concerned about the environment, whereas in history, they have to learn to explain reasons for events and their significance. As regards language, students are required to use technical vocabulary and are expected to organise their writing into short paragraphs. Our prompts then include the recall of facts, relating this knowledge to the pupils' own experience, giving opinion and explanation. For geography, the teachers chose Topic Four, 'The Natural Disasters in each continent: droughts, floods, earthquakes and volcanoes'. For this first year of real disciplinary study, we decided to give a lot of help in the prompts, considering the age of the pupils and the circumstances of the writing and speaking. The writing prompt was the following. The same points were used as the basis for the class discussions and interviews:

Choose one natural disaster that you have studied. Write a composition about it. Try to include the following ideas: Describe a natural disaster. Explain where it takes place and why. What are the consequences, and what can be done to minimise them? Can you personally do anything to prevent or mitigate natural disasters?

For history (which follows geography in the syllabus), the teachers recommended Topic Two: 'Ancient Civilisations: Mesopotamia and Egypt'.

We prepared the following writing prompt for this topic. Again, the same points were covered in the oral sessions:

We have been studying the origins of ancient civilizations. Now, write a composition about it. Try to include the following ideas: explain why they started in the places where they did, and how they developed. Include information on the characteristics of ancient civilizations, why they were so important at that time and compare them with present day society. Give your personal view on what people can do today in comparison with those times.

After some time dedicated to preparation, where the students worked in groups, the whole-class discussion – an end-of-topic summary session – lasted about half an hour. The writing was done in the next class session. No help was given by the teacher, and no materials except the prompt were used. The students had 20 minutes to write their composition. The interviews took place a few days later, each one lasting approximately 10 minutes.

Treatment of the data and features analysed

The whole-class discussion, interviews and compositions were given codes to identify the type of production, topic and group. The spoken data were transcribed using the Santa Barbara Papers on Linguistics conventions (Du Bois *et al.*, 1992). These transcriptions are very reader-friendly, but, as a corollary, exclude some information, for example intonation, so the video recordings were used when necessary during the analysis. The written texts were copied following the original layout, orthography and punctuation.

The data were analysed to find information on the teachers' and students' production and its linguistic features. Guided by the Systemic Functional (SF) work on genre and register, we selected a number of features to code for at this point in the project, considering the age and level of the students, and the aims of the syllabus. As the first objective of these CLIL classes is the acquisition of content, we have focused mainly on features of the language that realise the ideational metafunction, analysing first the processes, realised by the verbal group, into the different semantic types: material, relational, mental, behavioural, verbal and existential (Halliday, 2004). The distribution of the different types gives information about the focus of the text – whether it is more on actions, relations between entities, expression of thoughts or feelings and so on. The ideational meaning can be expanded with different types of circumstantial information, realised by adverbs and prepositional phrases. We have also analysed these into their semantic types. Logical relations between propositions are an important part of the content, so we have studied the way the students

linked clauses together, expressing different logical relations: extension – addition, contrast, alternative – and enhancement by cause, time, place, manner and so on, as well as by projection of thoughts or speech. Finally, we have analysed the way in which the students qualified the content of their clauses, using expressions of modality: ability, probability, usuality or obligation, that is, aspects of interpersonal meaning. These features, we felt, would give us data from which to make a first evaluation of the students' ability to function in the social science classroom in English.

In the discussion sessions, we have focused on the teachers' management of the students' linguistic behaviour, from the point of view of the linguistic representation of content (types of processes) by teachers and students. In the analysis of the students' productions in the discussions, interviews and those same students' written compositions, we have also analysed the way in which the students develop the content of their clauses: their use of circumstances and clause complexes, as well as how they convey interpersonal meanings using modality.

Tags for the categories selected to be analysed here were designed by the researchers, and processed using computer tools. Solutions to coding difficulties were reached by negotiation among the researchers. Given our interest in pedagogical intervention, we also tagged for errors in the student production when they formed part of the features analysed, to be interpreted in future stages of the project.

Results

In this section, we present the results obtained from the analysis of the data, starting with the whole-class discussion sessions, and then looking at the individual students' spoken and written production. We begin with a brief description of the general production – fluency (Wolfe-Quintero *et al.*, 1998) – for the two schools and two topics, to give the reader an impression of the type of data we are dealing with.

Production

Class discussions consisted of three stages: presentation of the task, discussion of the points in the prompt in small groups and finally a whole-class discussion guided by the teacher. We focused on the last stage, analysing the teachers' elicitations of the content and the students' productions. The total number of words in the different discussion sessions ranged from around 2000 to a little over 4300.

As regards the length of the interviews, for the first topic, the students produced an average of 300 words and in the second almost 400 words. However, as the pupils had been selected to represent three different levels of oral production in the class, there was a great difference between

individual students. Although the researcher leading the interview encouraged each student to say as much as possible, in each group one pupil produced less than 150 words, while the most fluent students produced over 600 words. The average turn was of about seven words in the first interview and 11 in the second. It is clear, then, that as regards oral interaction, the teachers are working with very varied abilities. However, as regards written fluency, we found, in general, fewer differences in the 10 students. They wrote an average of 100 words for the first composition, and about 120 for the second. Their clauses tended to contain six to seven words.

Process types

Since the process is the pivot of the figure represented in the clause (Halliday & Matthiessen, 1999), the distribution of the different types of processes gives important information about the text and the communicative situation. Here, we only present results on the classes of processes that have a certain presence in our data: material (MAT), expressing actions, relational (REL), expressing states, and mental (MEN), expressing thoughts and feelings. The three minor types together rarely reach even 10% of the total. Table 12.2 shows the use of these process types during the class discussion by the teachers and students of the two schools (CA and CB), for the geography (GEO) and history (HIS) topics.

When talking about geography, teachers and especially students used a high proportion of material processes as they focused on natural events and why they happened:

Example 1

TCH: OK. So, what happens <MA>, there? Can you explain <VE>?

ST1: Because there are <EXI> no trees. They are cutting <MA> the trees, and they are making <MA> a desert. (CB-D1)

As a corollary, they used a lower percentage of relational processes; that is, the discussion included less information about where disasters take place

Table 12.2 Process types in whole-class discussion sessions

	<i>Discussions-teacher</i>			<i>Discussions-students</i>		
	<i>MAT (%)</i>	<i>REL (%)</i>	<i>MEN (%)</i>	<i>MAT (%)</i>	<i>REL (%)</i>	<i>MEN (%)</i>
GEO CA	48.33	17.50	20	77.35	16.98	1.88
GEO CB	40	36.66	17.08	61.53	32.67	4.57
HIS CA	31.41	29.31	21.46	45	40	10.83
HIS CB	22.66	49.33	16	52.42	36.89	7.76

or description of phenomena. The history topic, ancient civilisations, produced a different distribution of these two types of processes in the teachers' and students' discourse. Here, material processes were selected less and relational processes considerably more:

Example 2

CB-D2

ST1: That they are <RE> very ... eh ... few people are <RE> very very rich and other much, the majority of the population are <RE> very poor. And this is <RE> ... unfair.

TCH: OK. And what ... what about slaves?

ST2: They have <RE> no rights.

TCH: They have <RE> no rights. Mm. Yeah?

ST3: Eh, now we don't have <RE> slaves and now we have <RE> rights.

Mental processes were used consistently by the teachers in both topics – somewhat more by teacher A – and much less by their students, who hardly ever selected them in the geography discussion, and used them half as much as their teachers when talking about history. This difference might be related to the nature of the classroom as social context, where students are usually not expected to express their thoughts and feelings in classroom discourse, but rather show how much they know. As Example 3 shows, the choice of this process type is clearly related to the role of the teacher:

Example 3

CA-D2

TCH: OK. And why they were fertile? Remember <ME>.

ST: Because they were the, eh, with water.

TCH: With water. OK. Something else. Remember <ME>. What happened with the floods? What happened with the floods?

The teachers' productions also show some interesting differences. As we said, mental processes appeared more often in teacher A's discourse, as she focused her students on the questions. This teacher also used a higher proportion of material processes. This seems to be partly due to her more frequent use of feedback, as she often gave repetitions or recasts of the students' answers, thus using the same type of processes as students, who produced material processes more than any other type:

Example 4

CH: Acid rain destroys <MA> the forests.

TCH: Ah! Very important! OK. Say that again.

CH: That acid rain destroys <MA> forests.

TCH: Acid rain destroys <MA> forests. And as a consequence?...
(CA-D1)

These differences may be due to the fact that teacher A has many years of experience as an EFL teacher, although she is also a graduate in history, like teacher B. She focuses the students on their use of the foreign language more than teacher B.

Process types in student productions

We now focus on student productions, as our main interest in this chapter, in which we offer a first picture of the registers of social science in early secondary CLIL classes. In this section, we compare the students' choices of process types in the three types of data collected: their interventions in the class discussion sessions, and the interviews and compositions written by 10 students on the two topics.

Table 12.3 shows the distribution of the different process types by mode – discussion, interview or written text – and field – Geography or History, giving the percentage of each of the three main classes found. Material processes clearly dominate the field of geography in all three modes, reflecting the importance of actions and events in the topic. School A's especially high use of material processes in the discussion session may be partly due to the students' repetitions after the teacher's feedback, as we saw. In history, the dominance of material processes holds, although less pronounced, in the spoken registers (interviews and discussions), where material processes make up around 40% of all process types. However, in the compositions on history, relational processes increase, making up over 40%, while material processes are slightly under this percentage. Without

Table 12.3 Types in student production: discussions, interviews and compositions

	<i>Discussions-students</i>			<i>Interviews-students</i>			<i>Written texts-students</i>		
	<i>MAT (%)</i>	<i>REL (%)</i>	<i>MEN (%)</i>	<i>MAT (%)</i>	<i>REL (%)</i>	<i>MEN (%)</i>	<i>MAT (%)</i>	<i>REL (%)</i>	<i>MEN (%)</i>
GEOG CA	77.3	16.9	1.8	46.8	17.2	28.8	70.8	20.8	0
GEOG CB	61.5	32.6	4.5	60	20	10.7	67.5	15.5	1
HIS CA	45	40	10.8	42.5	33	12.9	38.9	47.3	6
HIS CB	52.4	36.8	7.7	40.6	33	16.3	38	44.3	8

the presence of the interlocutor, the student writers seemed to include more description in their response to the prompt:

Example 5:

The civilizations were <RE> so important because the most powerful people stood <RE> there and because they were <RE> the main sources of work and culture. (CA-T2-21)

A clear contrast in mode is found in the use of mental processes, which appear far more in the spoken data, especially in the interviews, where pupils use them more consistently through both topics. School A's high percentage – almost 30% – of mental processes was often due to examples like the following:

Example 6

INT (Interviewer): But what, what would you have done if you had been in that situation?

ST1: Mm, I don't know <ME>.

INT: You don't know.

ST1: [Isn't]. I don't know <ME>. I think <ME> but, that, that I feel <ME> very nervous, nervous, but I don't know <ME>. Eh, I think <ME> that near the tectonic plates, of the earth, of the waters . . .

However, in the written compositions, mental processes are hardly ever used: we find between 0% and 8%. In general, the history prompt seems to have invited more use of mental processes than geography, as in Example 7:

Example 7

My opinion: I think <ME-C>, that the government and all the city were <RE-IN-ATT> very cruel with people. (CA-T2-1)

A possible explanation for the students' more frequent use of mental processes in the history compositions might be due to the prompt. The history prompt invites the students to express their personal views, which might trigger more mental processes than the geography prompt, where they are expected to write about what they could do to prevent or mitigate natural disasters.

Circumstances in student productions

Circumstances play a role in expanding the basic information in the clause, and, again, the frequent appearance of certain types of circumstance will be motivated by the type of content, and by text-type, showing how our students respond to the tasks. In our spoken and written texts on the two topics, only three classes of circumstances had any presence: location

Table 12.4 Circumstances

	<i>Discussions-students</i>			<i>Interviews-students</i>			<i>Written texts-students</i>		
	<i>LO-PL (%)</i>	<i>LO-TM (%)</i>	<i>MN (%)</i>	<i>LO-PL (%)</i>	<i>LO-TM (%)</i>	<i>MN (%)</i>	<i>LO-PL (%)</i>	<i>LO-TM (%)</i>	<i>MN (%)</i>
GEO CA	20.7	0.6	9.4	20.6	2	6.8	22.2	4.1	5.5
GEO CB	10.5	1.8	4.9	14.6	12.1	4.3	11.6	1.2	2.5
HIS CA	6.6	21.6	6.6	17.5	11.5	5.5	32.6	27.3	9.4
HIS CB	9.7	11.6	0.9	11.4	11.4	4.8	6.1	10.3	7.2

in place (LO-P), location in time (LO-T) and manner (MN). Table 12.4 gives their distribution.

The data for the three most frequently used circumstances are given as a percentage of the number of clauses in each sub-corpus. Thus, for example, in School A's geography data, there is a consistently high use of circumstances of place, which are found in over 20% of the clauses in the three types of productions. In fact, the table shows the role of location in both topics and modes: in all the types of production, between 32.6% and 6.1% of the clauses had circumstances of place, with Geography, in general, including a higher percentage, with examples like the following:

Example 8:

ST: Floods and droughts occur in the places <LO-PL> that are near the river <LO-PL>. (CA-D1)

Location in time appears more important in History, as might be expected. Finally, a small proportion of circumstances of manner are found, distributed through modes and topics:

Example 9:

[...] now we can go from place to place faster <MN> with the car <MN> (CA-T2-6)

Surprisingly for us, very few circumstances expressing cause were found. These students use different resources to include information about causes in their texts, as we see in the next section of data.

Clause complexes in student productions

In the clause complex analysis, we discover how our learners expand their clauses, using different linkers, and so expressing different logical relations. The data presented in Table 12.5 includes the following

Table 12.5 Clause complexes

	<i>Discussions-students</i>			<i>Interviews-students</i>			<i>Written texts-students</i>		
	<i>EX (%)</i>	<i>EN-CAU (%)</i>	<i>EN-TM (%)</i>	<i>EX (%)</i>	<i>EN-CAU (%)</i>	<i>EN-TM (%)</i>	<i>EX (%)</i>	<i>EN-CAU (%)</i>	<i>EN-TM (%)</i>
GEO CA	13.2	11.9	10	32.4	14.9	6.2	15.2	4.1	5.5
GEO CB	21.1	18	4.3	39.5	15.6	2.4	14.2	11.6	3.8
HIS CA	15	14.1	1.6	34.2	14.8	2.7	21	11.5	2.1
HIS CB	12.6	13.5	1.9	37.6	13.3	2.2	25.7	15.4	0

classes: EX referring to paratactic expansion by ‘and’, ‘but’, ‘or’, EN-CAU, enhancement – mainly in hypotactic clauses – expressing cause and EN-TM expressing time. Again, we only show the classes of logical relations between clauses used with a certain frequency by the students, in at least one of the sets of data.

The table shows, first, that, in general, the students join their clauses using parataxis – extension – more than hypotaxis. In the spoken mode, in their interviews, nearly 40% of their clauses (from 32.4% to 39.5%) had this feature, whereas in the whole-class discussions, use of extension fell considerably (between 12.6% and 21.1% of the clauses were linked by extension). This might be due to the teachers’ distribution of the students’ turns, while the interviewers (researchers) encouraged the students to talk freely about each point in the prompt, thus leading to longer turns:

Example 10:

INT: OK. OK. So, um, why were these civilizations, around the river Nile, the ones you’ve talked about, so important, at that time?

ST: Because <EN-CAU> they were the main ones, and <EX>, there, the power was centred, in, in, in those cities the power was centred. Mm. No, the power of all the world was centred in those cities, because <EN-CAU> they, they were kings and <EX> the most important people, the noblemen, the priests, the scribes, and <EX> the culture was more-, and <EX> there were more-, there was more culture, culture there.

INT: Uh so, could they write? Could they read? Mm?

ST: Yes, but <EX>, only the scribes, the mm, the priests and the, and part of the noblemen, could read, write, and <EX> count.

In their written texts, again, this was also the most frequently chosen type of clause-complex, found in around 15% of the clauses in geography, and between 21% and 25% of those in the history compositions. In all the interviews and discussions, there is a similar use of enhancement to express cause, while this is slightly lower and less consistent in the compositions.

Example 11:

ST: Usually, eh, some natural disasters occur near the, plates boundary, because <EN-CAU> when these plates collide they cause internal force, forces, forces that can be natural disasters. (CA-D1)

The higher frequency of enhancement cause in the spoken data might be due to the fact that teachers and interviewers made sure that the students responded to the 'Why' in the prompts, whereas the students did not have this type of control in the written data.

Modality in student productions

The possibility of qualifying the claims made from the point of view of the speaker or writer, indicating their probability or usuality (PR/US), notions of ability (ABIL) and obligation or permission (OBL), is taken up very little in the students' production, as shown in Table 12.6.

The data for the use of modality are presented, again, in relation to the number of clauses analysed. As regards the expression of modal meanings, modal verbs were by far the most frequent choice, although some adverbs did appear. Probability and usuality are presented together – very few examples were found, and the functions are, to a certain extent, similar, to attenuate the strength of a generalisation:

Example 12:

In my point of view <PR> now a day we have more liberty than in those times. (CA-T2-10)

Table 12.6 Modality

	<i>Discussions-students</i>			<i>Interviews-students</i>			<i>Written texts-students</i>		
	<i>PR/US (%)</i>	<i>ABIL (%)</i>	<i>OBL (%)</i>	<i>PR/US (%)</i>	<i>ABIL (%)</i>	<i>OBL (%)</i>	<i>PR/US (%)</i>	<i>ABIL (%)</i>	<i>OBL (%)</i>
GEO CA	3.7	10.0	1.2	6.8	6.8	2	4.1	6.9	0
GEO CB	4.9	6.2	0.6	2.9	6.3	2.4	7.7	9	0
HIS CA	2.5	4.1	4.1	11.5	1.3	9.2	0	8.4	1
HIS CB	0.9	7.7	4.8	1.1	3.8	7.2	1	7	0

The geography prompt produced a certain expression of ability that was fairly consistent across registers, whereas the history prompt was less successful in this respect:

Example 13:

ST: Many animals can't <ABIL> survive because their environment are destroyed. (CA-D1)

The spoken performance included some modals of permission and obligation, practically absent in the compositions:

Example 14:

ST: That instead of the, eh, men that have to <OBL> sweep with water all the city, we have not to <OBL>, eh, make dirty the city (CA-D1).

This last group of modals was more frequent in the history than in the geography data, probably due to the prompt, and more frequent in the interviews than in the discussions.

Evaluation of the Results: The Syllabus and the Task

In this section, we first summarise our findings on student achievement from this early study of spoken and written student production in English in the social science class. As yet, we have not found comparable studies representative of our context against which to evaluate these results. To offer data on the situation was, precisely, our aim in the project. We later comment on certain features of the teachers' discourse.

First, as regards the oral production, the syllabus requires that pupils should be able to participate in discussions, responding to initial ideas and information. This was achieved fairly successfully in the discussions and interviews. The data from the interviews show that in these classes teachers are working with very varied abilities – the 10 subjects studied here, it will be remembered, were chosen to represent the different levels of oral proficiency. For writing, the syllabus requires that students should learn to produce texts with a certain amount of development. The texts the students wrote were generally informative, and showed reworking of the language expressing the content they had studied, rather than the use of memorised chunks or manipulation of the language of the prompt. What is also important is the rise in fluency for the individual tasks that were completed later in the year (those related to the History topic), in which, whatever their level, pupils managed more written production, and answered with longer turns in the interviews.

The linguistic features of the students' language were analysed following the requirements of the genre and register announced in the prompts. These elicited a discussion or a text which should include a report generalising

about a state of affairs, and an explanation, giving causes and consequences – that is, not the most simple school genre (Coffin, 2006). The pupils responded appropriately in general, although with varying success as regards some register features.

We found differences in the process types selected depending on the field. The Geography topic was built up mainly using material processes, while, for History, relational processes increased greatly in the spoken mode, and, in the compositions, students used a higher percentage of relational than material processes. This result represents the way in which the Geography topic was constructed around natural events occurring and causing effects, whereas that of History was built around a description of civilisations at a particular moment in the past, and human activities then and now. Some mental processes were used to signal opinion, required by the prompt. An interesting result is the fact that the students used more mental processes in the interview than in the discussion.

Finally, it cannot be claimed that the distribution of process types found in our data is characteristic of social science in CLIL contexts. The analysis of the Spanish data in our corpus will show if there are similar findings in non-CLIL social science classrooms.

Our students made some use of circumstances – mainly place and time, and, to a certain extent, manner – to add to the experiential content. Here, then, they were able to respond to the prompts, which in both topics required reference to both place and time. The reason why time is not more prominent in the History texts may be that the historical period written about was given, and the prompt did not ask for the unfolding of events, but a description and explanation of a state of affairs at that time. The use of circumstances of manner, which some students included, is a sign of development in writing according to Christie *et al.* (2007).

As regards clause complexes, the students' production showed differences according to context. Paratactic extension – a feature of spoken language – was twice as frequent in the interviews as in the class discussions and written texts. It must be remembered that, in the interviews, students were allowed to talk about each point for as long as they wanted to, whereas in the class discussions each student's turn was controlled by the teacher to make sure that everybody had a chance to participate in the discussion. The most frequent conjunction used, 'and', encodes simple addition of information, although many clauses introduced by 'and' clearly have a causal or temporal relation with the previous clause. In their representation of logical relations in their texts, then, the students are limited by lack of lexis, so that their coordinating conjunctions are not only polyfunctional but also polysemic. In both the written and the spoken data for both fields, hypotactic enhancement expressing cause was fairly frequent, responding to the prompts, which asked for explanations. In the written texts, the structuring of the content into clause complexes, rather

than a prepositional phrase or a nominal group, is a feature of orality (Barrio, 2004). In general, then, our students are not yet aware of the register features of the written text for the disciplines at secondary school.

This distance from academic register is also shown in these students' use of modality, a resource without which academic communication remains at a very rudimentary level. We found a very limited use; our students' generalisations are absolute, using the simple present tense, rather than qualified by a modal verb or adverb. The prompts for the tasks required an opinion about abilities which has been responded to in a few cases, although more in the written texts, while in the interviews on History, some markers of permission and obligation were found. Our students have, at present, few linguistic resources in this area of meaning – 'can' is almost the only choice for ability, probability and permission. Dalton-Puffer (2007: 168) suggests that students' reluctance to engage in hypothesising and, thus, to use modals of probability together with other linguistic devices for this function might be 'a product of gaps in L2 competence', related to the lack of hypothesising activities in CLIL classes. In our study, the prompts themselves included questions containing modality (ability and obligation/permission) but this did not lead to a more frequent use by the students. An interesting feature is that students used more modals of obligation/permission in interviews as compared to discussions. This finding, together with the most frequent use of mental processes in the first type of context, might show that the interview format leads to the students' realisation of more interpersonal language features than the classroom context. Further research on this could be very revealing.

Finally, the analyses have shown the different ways in which the teachers managed the class interaction. Both teachers skilfully elicited information without providing the lexis the students would need in order to respond, and frequently encouraged them to think, remember, and so on. Especially interesting was the way in which the teacher familiar with EFL instruction focused the students on the language they were using, without losing the focus on meaning, on the content of the lesson.

Conclusion

When we consider the data analysed here in relation to the objectives of the curriculum, the productions of our EFL students can be seen to be moving towards the features of the language they need for success in the disciplines studied. The analysis presented here takes data from the first year in which they are facing the challenge of the move into a new type of representation of content, and one that causes problems to native speakers. Their learning should be evaluated in the light of the achievement in non-CLIL contexts. At least in fluency, these young students' written production is similar to that found in English language classes in the final

years of schooling. Studies have shown that, four to five years later, EFL subjects in non-CLIL classes produce a similar number of words in the same time, with few error-free clauses (Martín & Whittaker, 2005). Considering that these students are just beginning their secondary education, it seems that, in the classes studied, the efforts made by pupils and their teachers is giving them a good start on the road to improved achievement, and this alone provides justification of the CLIL approach, with all its difficulties.

Finally, to return to our general aim in our project (of which we present here an extract), we wanted to describe the type of language these early secondary CLIL students are able to produce at this level in this subject, and the type of language needed, in order to evaluate whether they are able to function successfully in their classes. Can they, then, produce the type of language necessary for the tasks? Our present feeling is that more work focused on language is needed in specific areas, as shown in our analysis. We have to offer subject teachers linguistic support based on study of the features of the registers in the curriculum (Macken-Horarik, 1996), so that they can incorporate work on specific features required for the expression of the meanings in the genres demanded by the curriculum. But it is only by detailed analysis of the students' productions and of their target texts – spoken and written – that we can begin to work on the types of intervention which would be useful in these classes.

Acknowledgements

This study forms part of a research project (09/SHD/017105; CCG06-UAM/HUM-0544) directed by Ana Llinares García and financed by the Comunidad Autónoma de Madrid and the Universidad Autónoma, Madrid. We are grateful for their support. We also thank the student researchers Amaya Vázquez, Irene Pascual and Claudia Magyar for their efficient work.

Notes

1. Education is the responsibility of the communities – only distance learning remains centralised.
2. This project was designed at the national level before decentralisation took place.
3. These guidelines are still at a preliminary stage, as the project has just started at secondary level and the curriculum is still being tested.
4. This research project is linked to two ongoing corpus projects at the Madrid Autónoma University: the UAMLESC (UAM Learner English Spoken Corpus) and the UAMWILC (UAM Written Interlanguage Corpus).
5. These data have not been analysed in this chapter.
6. According to Halliday, language serves three main functions: ideational (the use of language to represent reality), interpersonal (the use of language to interact with others) and textual (the use of language to create text).

References

- Barrio, M. (2004) An Experimental Study of Textual Development of Spanish Students of English as a Foreign Language in 'Segundo De Bachillerato': Features of Writer Register in Compositions of Argumentative Genre. Unpublished PhD thesis, Universidad Autónoma de Madrid.
- Christie, F. (1998) Learning the literacies of primary and secondary schooling. In F. Christie and R. Misson (eds) *Literacy and Schooling* (pp. 47–73). London: Routledge.
- Christie, F. (2002) *Classroom Discourse Analysis*. London: Continuum.
- Christie, F., Derewianka, B., Dreyfus, S., Humpbrey, S. and Lewis, H. (2007) Writing development: Indicators of growth. Paper presented at the 34th International Systemic Functional Congress, University of Southern Denmark, Odense.
- Christie, F. and Martin, J. (1997) *Genre and Institutions: Social Processes in the Workplace and School*. London: Cassell.
- Coffin, C. (2000) Defending and challenging interpretations of the past: The role of argument in school history. *Revista Canaria de Estudios Ingleses* 40, 135–153.
- Coffin, C. (2006) *Historical Discourse*. London: Continuum.
- Cope, B. and Kalantzis, M. (eds) (1993) *The Powers of Literacy: A Genre Approach to Teaching Writing*. London: Falmer Press.
- Dalton-Puffer, C. (2007) *Discourse in Content and Language Integrated Learning (CLIL) Classrooms*. Amsterdam: John Benjamins.
- Du Bois, J., Cumming, S., Schuetze-Coburn, S. and Danae, P. (eds) (1992) Discourse transcription. *Santa Barbara Papers in Linguistics. Volume 4*. Santa Barbara, CA: University of California.
- Foley, J. and Thompson, L. (2003) *Language Learning: A Lifelong Process*. London: Arnold.
- Halliday, M.A.K. (1989a) *Spoken and Written Language*. Oxford: OUP.
- Halliday, M.A.K. (1989b) Register variation. In M.A.K. Halliday and R. Hasan (eds) *Language Context and Text: Aspects of Language in a Social-Semiotic Perspective*. Oxford: OUP.
- Halliday, M.A.K. (2004) *An Introduction to Functional Grammar* (3rd edn). Revised by C. Matthiessen. London: Edward Arnold (1st edn 1985).
- Halliday, M.A.K. and Hasan, R. (2006) Retrospective on SFL and literacy. In R. Whittaker, M. O'Donnell and A. McCabe (eds) *Language and Literacy: Functional Approaches* (pp. 15–44). London: Continuum.
- Halliday, M.A.K. and Martin, J. (eds) (1993) *Writing Science: Literacy and Discursive Power*. London: Falmer Press.
- Halliday, M.A.K. and Matthiessen, C. (1999) *Construing Experience through Meaning: A Language-based Approach to Cognition*. London: Continuum.
- Halliday, M.A.K., McIntosh, A. and Stevens, P. (1964) *The Linguistic Sciences and Language Teaching*. London: Longman.
- Llinares, A. (2006) A pragmatic analysis of children's interlanguage in EFL preschool contexts. *Intercultural Pragmatics* 3 (2), 171–193.
- Macken-Horarik, M. (1996) Literacy and learning across the curriculum: Towards a model of register for secondary school teachers. In R. Hasan and G. Williams (eds) *Literacy in Society* (pp. 232–278). London: Longman.
- Martin, J. (1993a) Literacy in science: Learning to handle text as technology. In M.A.K. Halliday and J. Martin (eds) *Writing Science: Literacy and Discursive Power* (pp. 166–202). London: Falmer Press.
- Martin, J. (1993b) Life as a noun: Arresting the universe in science and humanities. In M.A.K. Halliday and J. Martin (eds) *Writing Science: Literacy and Discursive Power* (pp. 221–267). London: Falmer Press.

- Martin, J. and Rothery, J. (1986) What a functional approach to the writing task can show teachers about 'good writing'. In B. Couture (ed.) *Functional Approaches to Writing: Research Perspectives* (pp. 241–265). Norwood, NJ: Ablex.
- Martín, A. and Whittaker, R. (eds) (2005) *La Composición como Comunicación: Una Experiencia en las Aulas de Bachillerato*. Madrid: Ediciones UAM.
- Mohan, B. (1986) *Language and Content*. Reading, MA: Addison-Wesley.
- Polias, J. (2003) *ESL Scope and Scales*. Adelaide, South Australia: DECS Publishing.
- Polias, J. and Dare, B. (2006) Applying SFG in the South Australian classroom. In R. Whittaker, M. O'Donnell and A. McCabe (eds) *Language and Literacy: Functional Approaches* (123–143). London: Continuum.
- Romero, J. and Linares, A. (2001) Communicative constraints in native/non-native pre-school settings. *International Journal of Corpus Linguistics* 6 (1), 27–46.
- Rothery, J. (1994) *Exploring Literacy in School English, Write it Right Project, Disadvantaged Schools Program*. Erskineville: Department of School Education.
- Rothery, J. (1996) Making changes: Developing an educational linguistics. In R. Hasan and G. Williams (eds) *Literacy in Society* (pp. 86–123). London: Longman.
- Schleppegrell, M. (2004) *The Language of Schooling: A Functional Linguistics Perspective*. Mahwah, NJ: Erlbaum.
- Schleppegrell, M. and Colombi, C. (eds) (2002) *Developing Advanced Literacy in First and Second Languages: Meaning with Power*. Mahwah, NJ: Erlbaum.
- Sinclair, J.M. and Coulthard, M. (1975) *Towards an Analysis of Discourse*. London: Oxford University Press.
- Swain, M. (1990) Manipulating and complementing content teaching to maximise second language learning. In R. Pillipson, E. Kellerman, L. Selinker, M. Sharwood Smith and M. Swain (eds) *Foreign/Second Language Pedagogy Research* (pp. 234–251). Clevedon: Multilingual Matters.
- Veel, R. (2006) The 'Write it Right' project. In R. Whittaker, M. O'Donnell and A. McCabe (eds) *Language and Literacy: Functional Approaches* (pp. 66–92). London: Continuum.
- Veel, R. and Coffin, C. (1996) Learning to think like a historian: The language of secondary school history. In R. Hasan and G. Williams (eds) *Literacy in Society* (pp. 191–231). London: Longman.
- Whittaker, R., O'Donnell, M. and McCabe, A. (eds) (2006) *Language and Literacy: Functional Approaches*. London: Continuum.
- Wignell, P., Martin, J. and Eggins, S. (1993) The discourse of geography: Ordering and explaining the experiential world. In M.A.K. Halliday and J. Martin (eds) *Writing Science: Literacy and Discursive Power* (pp. 136–165). London: Falmer Press.
- Wolfe-Quintero, K., Inagaki, S. and Kim, H-Y. (1998) *Second Language Development in Writing: Measures of Fluency, Accuracy and Complexity*. Honolulu, SLTCC: University of Hawaii.