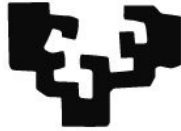


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# **CLIL in a Multilingual Setting: A Longitudinal Study on Galician Students, Teachers and Families**

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PhD Programme: Language Acquisition in Multilingual Settings (LAMS)

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## ABSTRACT

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Over the past years, the Galician Educational Department has been trying to find the answer to how to harmonise a language policy based on the protection and preservation of Galician with the inclusion of other vehicular languages in the curriculum —CLIL, Content and Language Integrated Learning—, in line with European guidelines on plurilingualism (Calvo & San Isidro 2012). In June 2010, a decree on Plurilingualism (Decree 79/2010) was published by the Educational Department with a view to mainstreaming CLIL, setting out that one third of the subjects could be taught in a foreign or additional language with the two remaining thirds taught in Galician and Spanish.

This dissertation investigates the effects of that CLIL-oriented language policy on a particular context. Research has shown positive effects of CLIL on students' attitudes and motivations (Seikkula-Leino 2007; Merisuo-Storm 2006, 2007; Ackerl 2007; Lasagabaster 2008, 2009, 2011; Lasagabaster & Sierra 2009; Czura et al. 2009; Sierra 2011; Doiz et al. 2014; Lasagabaster & Doiz 2015) as well as on foreign language learning (Dalton-Puffer 2011; Pérez Cañado 2012). Research has also shown teachers' positive views on CLIL implementation (Mehisto and Asser 2007; Ackerl 2007; Coonan 2007; Wiesemes 2009; Czura et al. 2009). Studies on families' perceptions and attitudes are, however, thin on the ground (Pladevall-Ballester 2015). As regards the impact of CLIL on first language —L1— learning, although it is under-researched (Lasagabaster & Ruiz de Zarobe 2010), there exist some studies showing no detrimental effect (Admiraal et al. 2006; Serra 2007; Merino & Lasagabaster 2015). Furthermore, most of the existing research literature seems to agree on the fact that CLIL either makes no impact on the learning of subject matter (Wode 1999; Jäppinen 2006; Admiraal et al. 2006) or shows a positive effect (Stohler 2006; Serra 2007; Van de Craen et al. 2007b; Zydariß's 2007, 2009). Only one study so far (Fernández-Sanjurjo et al. 2017) has shown negative results regarding content learning. As for the effects of CLIL on code-switching, according to Gierlinger (2015), the majority of the existing studies base teachers' beliefs on code-switching on qualitative interviews or questionnaires without any reference to classroom data (Lasagabaster 2013; Méndez & Pavón 2012; Viebrock 2012). Deficiencies of the research related to the impact of CLIL have also been identified (Pérez Cañado 2016b): CLIL and non-CLIL students should be compared and contrasted through statistical analysis and triangulation of data; research should be longitudinal and combine quantitative and qualitative methods; dependent

variables such as L1 and content learning should be considered; and homogeneity of the samples should be guaranteed.

This thesis considers those deficiencies and encompasses a two-year longitudinal mixed methods study on two groups of students (N=20 and N=24), academically homogeneous at the start, their families (N=44) and teachers (N=6). It is focused on stakeholders' attitudes and perceptions as well as on students' language competence, content learning and code-switching within a multilingual CLIL environment, a medium-sized rural high school in Galicia. Due to its multifaceted nature, the present study draws on methods from several research fields and reports findings triangulating data and results from a questionnaire, interview, test and task-based analysis.

The findings reported show that both CLIL and non-CLIL students as well as their parents developed long-term positive attitudes and motivation towards language learning, although CLIL students and their parents improved their attitudes to a greater extent. Furthermore, teachers' initial views on CLIL implementation turned more positive over the two years. As regards results, both groups of students improved their competence in English after year one and year two, although the CLIL cohort made greater progress. Interestingly, the CLIL students also outperformed their non-CLIL counterparts in both Spanish and Galician over the two school years. As regards content learning, the results obtained from the analysis of the data gathered showed that it was not negatively affected. Finally, with reference to code-switching, there seemed to be a general decrease in the CLIL students' number of switches. Nonetheless, in the findings reported, there appeared to be a tendency for CLIL students to increase their switches in two categories: monitor and alignment, i.e. self-editing and role-assigning, respectively.

The findings of the study contribute to 1) providing an in-depth knowledge of the effects of a language policy on a multilingual CLIL educational context, and 2) validating the participating stakeholders' results, voice and views.

**Keywords:** Content and Language Integrated Learning (CLIL), attitudes and motivation, multilingualism, curriculum integration, code-switching

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## RESUMEN

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En los últimos años, la Consellería de Educación de Galicia ha intentado encontrar respuestas sobre cómo armonizar una política lingüística basada en la protección y preservación de la lengua gallega con la inclusión de otras lenguas en el currículo, en línea con las directrices europeas en materia de aprendizaje de lenguas. En junio de 2010, dicha Consellería publicó un decreto sobre plurilingüismo (Decreto 79/2010), por el cual se oficializa el uso de lenguas extranjeras como vehiculares (AICLE, Aprendizaje Integrado de Contenidos y Lenguas) y se establece un máximo de un tercio para cada una de las lenguas curriculares. El decreto ha generado controversia, sobre todo por la opinión extendida de que la presencia de la lengua gallega en el sistema educativo quedará reducida a un papel secundario y de que el profesorado no está preparado para un cambio de tal magnitud. Con todo, esta nueva normativa ha provocado la coexistencia de dos tipos de programas: las secciones bilingües, AICLE voluntario para el alumnado, y los centros plurilingües, AICLE obligatorio para todo el alumnado en el centro participante.

El objetivo principal de esta tesis es examinar los efectos que esa política lingüística y AICLE tienen en un contexto educativo concreto. La investigación previa ha demostrado los efectos positivos de AICLE sobre las actitudes y motivaciones de los alumnos (Seikkula-Leino 2007; Merisuo-Storm 2006, 2007; Ackerl 2007; Lasagabaster 2008, 2009, 2011; Lasagabaster & Sierra 2009; Czura et al. 2009; Sierra 2011; Doiz et al. 2014; Lasagabaster & Doiz 2015) y sobre el aprendizaje de la lengua extranjera (Dalton-Puffer 2011; Pérez Cañado 2012). Asimismo, existen estudios sobre las percepciones positivas que los profesores tienen acerca de la implementación de este enfoque (Mehisto and Asser 2007; Ackerl 2007; Coonan 2007; Wiesemes 2009; Czura et al. 2009). Sin embargo, es limitado el número de estudios centrados en las actitudes y motivaciones de las familias (Pladevall-Ballester 2015), como también lo es el de trabajos de investigación que abordan el efecto de AICLE sobre el aprendizaje de la primera lengua —L1— (Lasagabaster & Ruiz de Zarobe 2010). Con respecto a estos últimos, algunos han concluido que el enfoque AICLE no parece tener un impacto negativo en el aprendizaje de

L1 (Admiraal et al. 2006; Serra 2007; Merino & Lasagabaster 2015). Por otra parte, en cuanto al impacto de este enfoque en el aprendizaje de otros contenidos curriculares, la investigación parece inclinarse hacia el hecho de que AICLE, o bien no tiene ningún tipo de efecto sobre el aprendizaje de contenido (Wode 1999; Jäppinen 2006; Admiraal et al. 2006), o su impacto es positivo (Stohler 2006; Serra 2007; Van de Craen et al. 2007b; Zydati's 2007, 2009). Hasta el momento, solo un estudio de investigación (Fernández-Sanjurjo et al. 2017) ha mostrado resultados negativos con respecto al aprendizaje de otros contenidos curriculares. En lo que respecta a los efectos de AICLE en el *code-switching* en el aula, según Gierlinger (2015), la mayoría de los estudios existentes se basan en las percepciones de los profesores obtenidas a través del análisis cualitativo de entrevistas o cuestionarios sin ningún tipo de referencia a los datos de aula (Lasagabaster 2013; Méndez & Pavón 2012; Viebrock 2012). En términos generales y teniendo en cuenta la multitud de vías de investigación con respecto a este enfoque, la literatura de investigación ha identificado también sus propias deficiencias (Pérez Cañado 2016b): la comparación de y contraste entre los resultados conseguidos por alumnos que participan en este tipo de programas y por los que no, deberían realizarse mediante análisis estadísticos basados de la triangulación de datos; la investigación debería ser longitudinal y combinar métodos cuantitativos y cualitativos; deberían considerarse otras variables como el aprendizaje de L1 o el de otros contenidos; y debería garantizarse la homogeneidad de las muestras.

La presente tesis doctoral tiene en cuenta esas deficiencias y comprende un estudio longitudinal de dos años, basado en métodos mixtos, sobre dos grupos de alumnos (N=20 y N=24), homogéneos desde el punto de vista académico, sus familias (N=44) y los profesores (N=6). Se centra, por una parte, en el análisis de actitudes, motivaciones y percepciones de todos los participantes en el proyecto, y, por otra, en el análisis de la competencia plurilingüe, el aprendizaje de contenido y el *code-switching* en las intervenciones orales de los alumnos en un contexto multilingüe donde se implementa AICLE, un instituto de tamaño medio de la Galicia rural.

Los objetivos de la investigación son cuatro:

- 1) Medir de forma longitudinal las actitudes y motivaciones de los participantes hacia el aprendizaje de la lengua, así como sus percepciones sobre AICLE.
- 2) Obtener información empírica longitudinal sobre la competencia lingüística de los alumnos en las tres lenguas utilizadas para la aprendizaje —gallego, castellano e inglés—.
- 3) Obtener información empírica longitudinal sobre el aprendizaje de contenido.
- 4) Observar el *code-switching* en las intervenciones orales de los alumnos de manera longitudinal.

Relacionados con los objetivos de esta tesis, los tres focos o áreas focales en los que se basa este estudio y que constituyen el punto de partida para la formulación de las preguntas de investigación son:

**Área focal 1:** La medición y análisis triangulado de las actitudes, motivaciones y percepciones de los alumnos, familias y profesores en relación a las lenguas ambientales, la lengua extranjera y la implementación de AICLE durante dos cursos escolares. Este foco está relacionado con el objetivo de investigación número 1 y es el punto de partida para las siguientes preguntas de investigación:

RQ1: ¿Muestra AICLE algún efecto sobre las actitudes y motivaciones de los alumnos hacia el aprendizaje de lenguas?

RQ2: ¿Supone AICLE algún tipo de impacto sobre las actitudes y motivaciones de las familias hacia el aprendizaje de lenguas?

RQ3: ¿Cuáles son las percepciones de los profesores sobre la implementación de AICLE y sus resultados?

**Área focal 2:** El análisis de los resultados obtenidos por los alumnos en las tres lenguas curriculares (gallego, castellano e inglés) y en la materia AICLE (Ciencias Sociales) mediante exámenes administrados en tres momentos diferentes entre 2012 y 2014. Este foco está relacionado con los objetivos número 2 y 3, y constituye la base para la formulación de las siguientes preguntas de investigación:

RQ4: ¿Existen diferencias significativas a nivel longitudinal entre alumnado AICLE y no-AICLE en lo que respecta al aprendizaje de la lengua extranjera?

RQ5: ¿Existen diferencias significativas a nivel longitudinal entre alumnado AICLE y no-AICLE en lo que respecta al aprendizaje de L1?

RQ6: ¿Proporciona AICLE un marco para el aprendizaje de lenguas de forma plurilingüe?

RQ7: ¿Existen diferencias significativas a nivel longitudinal entre alumnado AICLE y no-AICLE en lo que respecta al aprendizaje de contenido?

**Área focal 3:** El análisis de datos relacionados con el *code-switching* en las interacciones orales de los alumnos en el aula, obtenidos mediante la monitorización de tareas integradas durante dos años. Esta última área focal está ligada al objetivo número 4 y constituye el punto de partida para las dos últimas preguntas de investigación:

RQ8: ¿Cuándo ocurre el *code-switching* en las intervenciones orales de los alumnos y cuál es su papel?

RQ9: ¿Existen diferencias significativas entre alumnado AICLE y no-AICLE en lo que respecta al *code-switching*?

La estructura de este estudio se organiza como sigue. El capítulo 2 aborda conceptos clave relacionados con el bilingüismo, la clasificación del concepto en diferentes tipos y su relación con la educación en lo que respecta a los distintos enfoques y tipos de educación bilingüe. Se presta especial atención a aquellos factores que influyen en el aprendizaje de la lengua y que están estrechamente relacionados con los focos de investigación de esta tesis: el componente actitudinal/motivacional, la interdependencia lingüística y los factores relacionados con el componente metodológico.

El capítulo 3 se centra en la conceptualización de AICLE mediante el análisis del diseño curricular integrado y la implementación. Lo componen los módulos pedagógicos que fueron utilizados para formar a los profesores participantes antes del inicio del proyecto objeto de esta tesis. El capítulo ofrece una descripción detallada de cada uno de esos módulos, centrados en las principales áreas de la teoría, diseño e implementación de AICLE.

El capítulo 4 aborda una revisión de la literatura de investigación directamente relacionada con el diseño y análisis del presente estudio longitudinal. Este capítulo traza una hoja de ruta para el diseño del estudio y revisa la literatura de investigación relacionada con el efecto de AICLE en diferentes contextos educativos. El capítulo agrupa los diferentes estudios revisados en cinco categorías relacionadas con el impacto de este enfoque sobre: las percepciones, las actitudes y las motivaciones de los participantes; el aprendizaje de la lengua extranjera; la primera lengua (L1); el aprendizaje de contenido; y el *code-switching* de los estudiantes.

El capítulo 5 sitúa el contexto de esta investigación y ofrece una visión general que abarca las políticas lingüísticas de la Unión Europea, el reto de España en materia de



multilingüismo y, finalmente, el caso de Galicia. El capítulo se cierra con una revisión sobre la literatura de investigación existente en el contexto gallego.

Tras establecer las áreas focales, los objetivos y las preguntas de investigación, el capítulo 6 describe la muestra de este estudio así como los diferentes procedimientos, métodos e instrumentos utilizados, todos ellos estrechamente relacionados con el foco múltiple de esta tesis sobre actitudes, resultados, opiniones y *code-switching*. A continuación, el capítulo aborda una discusión sobre las herramientas de recogida de datos (cuestionarios, entrevistas, pruebas estandarizadas y tareas), así como consideraciones varias sobre la validez de la investigación.

El capítulo 7 presenta los resultados en dos partes, considerando la división en datos cuantitativos y cualitativos. Cada parte se centra en los diferentes participantes y se subdivide considerando los diferentes instrumentos utilizados, así como las preguntas de investigación, agrupadas entorno a las tres áreas focales y los objetivos del estudio.

La tesis concluye en el capítulo 8 con las conclusiones finales, agrupadas en los tres focos del análisis y en cada una de las preguntas de investigación. Se abordan las limitaciones del estudio, las implicaciones educativas para los profesores y sugerencias para la futura investigación.

En cuanto a las conclusiones del estudio, los datos analizados revelan que, tanto los alumnos AICLE como los no-AICLE, así como sus familias mejoraron sus actitudes y motivaciones hacia el aprendizaje de lenguas a lo largo de los dos años. Sin embargo, la mejora fue mayor en el caso de los estudiantes AICLE y sus familias. Con respecto a las percepciones de los profesores sobre la implementación de este enfoque, el análisis muestra una opinión positiva que mejoró en el transcurso del proyecto. En cuanto al análisis de los datos obtenidos a través de las pruebas estandarizadas, los dos grupos de alumnos mejoraron su competencia en la lengua extranjera, aunque el progreso fue mayor en el caso del grupo AICLE. En lo que respecta a la medición de la competencia en

castellano y gallego, el grupo AICLE también superó al otro grupo en el análisis longitudinal de resultados. Por otra parte, con respecto al aprendizaje contenidos, las conclusiones son diferentes, ya que los resultados obtenidos del análisis de datos muestra que AICLE no supuso ningún tipo de impacto. Finalmente, en relación al *code-switching* en el aula, el análisis muestra un descenso general en el número de alternancias de código en el grupo AICLE. No obstante, los resultados muestran una tendencia en este grupo hacia el aumento de alternancias en dos categorías: monitor y *alignment*, esto es, autocorrección y asignación de roles, respectivamente.

Las conclusiones del estudio contribuyen, por un lado, a proporcionar un conocimiento profundo sobre los efectos de una política lingüística en un contexto multilingüe donde se implementa AICLE; y, por otro, a validar los resultados, la voz y las percepciones de los participantes.

**Palabras clave:** Aprendizaje Integrado de Contenido y Lengua (AICLE), actitudes y motivación, multilingüismo, integración curricular, *code-switching*

## CHAPTER 1: INTRODUCTION

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### 1.1. Background

This thesis encompasses a two-year longitudinal mixed methods study on two groups of students, their families and teachers. It is focused on stakeholders' attitudes and perceptions as well as on students' language competence, content learning and code-switching within a multilingual CLIL (Content and Language Integrated Learning) environment, a medium-sized rural high school in Galicia (Northern Spain).

There are three main aspects that constitute the focus of this thesis:

- 1) The triangulation-based analysis of students', families' and teachers' perceptions of language learning —related not only to both environmental and additional languages but also to CLIL implementation— through measuring students' and families' attitudes and motivations along with families' and teachers' opinions during the course of two years.
- 2) The analysis of students' results in the three curricular languages —Galician, Spanish and English— and in the CLIL subject —Social Science— through tests administered in three different moments between 2012 and 2014.
- 3) The analysis of data related to CLIL students' oral code-switching elicited from monitoring integrated tasks during two years.

My interest in developing this research study has been driven primarily by my professional background, which has provided me with a wide-angle perspective of CLIL in relation to policy-making and implementation:

- As a consultant for different regional governments in Spain I have been fortunate to be involved in policy-making and curriculum development based on multilingual programmes for more than 10 years.
- As a researcher and thanks to the significant support from education authorities, I have been able to conduct a number of descriptive studies on CLIL implementation (see section 5.4. in chapter 5).
- As an English teacher, I coordinated a two-year Social-Science CLIL programme in the above-mentioned high school, which took part in a CLIL experience through the Bilingual Section model (see section 5.3. in chapter 5). This experience, which is the subject of this dissertation, provided me with first-hand knowledge about how CLIL functions at a school level.

## 1.2. Structure of the thesis

This thesis is organised as follows. Chapter 2 addresses key concepts in the literature regarding bilingualism, its types and its relationship to education in terms of approaches and types of bilingual education. Particular attention is paid to the factors influencing language learning that are closely related to the research goals of the thesis: the attitudinal/motivational component, language interdependence and the factors related to the pedagogical/methodological component.

Chapter 3 is centred on conceptualising Content and Language Integrated Learning — CLIL— through the analysis of curriculum design and pedagogy. It is made up of the training modules that were used to train teachers before starting the CLIL project analysed in this thesis. The chapter provides a detailed description of those training pedagogical modules covering the main areas related to CLIL theory, design and implementation.

Chapter 4 provides a review of the research literature specifically related to the design and analysis of our longitudinal study. The chapter maps and reviews the research literature

related to the impact of CLIL by means of grouping the different studies into five different topics which are relevant to this thesis: on stakeholders' perceptions, attitudes and motivation; on foreign language learning; on students' first language; on content learning; and on students' code-switching.

Chapter 5 sets the context of this research study through an overview ranging from the language policies in the European Union to the Spanish challenges towards multilingualism and the Galician case. The chapter closes with a review on the research literature existing in the Galician context.

After setting up the research focal areas, goals and questions, chapter 6 provides a description of the sample of this study along with the various procedures, methods and tools used, directly connected to the multiple focus of the thesis on language attitudes, outcomes, opinions and code-switching. The chapter then turns towards a discussion of the data collection tools as well as various considerations on the validity of the research.

Chapter 7 reports our findings in two parts considering the division into quantitative and qualitative data. Every part deals with the different stakeholders and is subdivided considering the different instruments used as well as the research questions. Since this thesis draws on methods from several research fields and reports findings from a questionnaire, interview, test and task-based analysis, research questions were grouped around three focal areas and its related goals.

The thesis closes in chapter 8 with a set of final conclusions grouped into the three focal areas. Limitations of the study are addressed along with educational implications for teachers and suggestions for future research.

## CHAPTER 2: FUNDAMENTALS

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### 2.1. Conceptualising bilingualism

Although commonly polarising and controversial for policy-makers, linguists and practitioners, the concept of bilingualism merits a special focus as a starting point in this research, which is set on a rural school in which students can speak two languages — Galician and Spanish— (see section 5.3. in chapter 5). In this section I will present, narrow down and review some relevant considerations regarding the conceptualisation of bilingualism which have made a clear impact on the educational field. Gaining an insight into the evolution of its definitions from the different interpretations and perspectives of the different authors can make us come closer to a general understanding of the factors on which the different typologies and theories are based.

Bilingualism and multilingualism, at their simplest, refer to the ability of individuals to speak two or more languages, respectively. Although linguists discuss and provide arguments about the issue of whether or not an individual can have more than one first language, I will assume, for the sake of this study, that a person can be a native speaker of one or more languages. The question is whether being a native speaker is only related to ability or also to usage. According to Baker (1996), there is a clear-cut distinction between bilingual ability and bilingual usage. Whereas some bilinguals may use two languages fluently but be prone to favour one of them, others may be less proficient in both languages but switch between them much more frequently. Put simply, on the one hand, bilingual ability refers to a person's four-skilled language proficiency —listening, speaking, reading and writing—. And, on the other hand, as a bilingual person moves —in communication terms— from one situation to another or from one place to another, so does his or her use of language change. This is the so-called language usage, part and parcel of the concept. It is instrumentally important to conceptualise bilingualism in terms of individual abilities taking into consideration the context of use in its broadest sense.

This ability-usage dichotomy makes a case for including the societal-contextual dimension in the conceptualisation of the term, since bilingualism encompasses a massive range of proficiencies and contexts. Language proficiency, context, language social prestige and language policy are key elements in what bilingualism is currently considered to be (Redinger 2010). Defining bilingualism is a really challenging task as it is context-dependent and laden with a myriad of factors. Regarding language proficiency, the fact that individuals showing varying bilingual characteristics may well be classified as bilingual makes definitions range from the ones referring to a minimal proficiency in two languages to those related to a proficient level in at least two languages, i.e. the so-called '*native-like control of two languages*' (Bloomfield 1933: 56). The fact that there exist large numbers of people who can speak more than one language without that 'native-like' command of one of the languages brings into question how proficient a person should be in order to be classed or labelled as bilingual.

Diebold (1964) suggested that bilingualism starts when a person is able to understand utterances in a second language, even though that person is unable to orally articulate an utterance. Accordingly, bilingualism could be defined as a person's ability to use at least two languages. More recently and in line with the previous conception, Richards and Schmidt (2002: 51) defined bilingualism as '*the use of at least two languages either by an individual or by a group of speakers such as the inhabitants of a particular region or a nation*'. This definition leads to identifying different degrees of bilingualism, which can be assessed considering the individual's proficiency in the four skills: listening, speaking, reading and writing. Some people may describe themselves as bilingual meaning only the ability to communicate orally. Other people may be biliterate (Ballinger 2013), i.e. proficient in reading in two or more languages. A person may be considered bilingual because of having grown up learning and using two languages simultaneously —simultaneous bilingualism—. Or people may become bilingual through learning a second language at some point after their first language—sequential bilingualism—. Grosjean (1982) explained that there has existed a strong tradition and misconception about labelling bilinguals from the perspective of monolinguals (same proficiency in both languages). Conversely, he

considered bilingualism from a holistic perspective, in which the bilingual's command and proficiency of two languages produces a different language system matching the needs to communicate. The bilingual is not the sum of two monolinguals, but the result of the mixture and interaction of the two languages a person can use. In a more recent publication, Grosjean (2010: 20) advocated an even more inclusive definition of bilingualism so that a broad spectrum of people can be labeled as bilinguals. The author argued:

*If one were to count as bilingual only those who can pass as monolinguals in each language, one would have no label for the vast majority of people who use two or more languages regularly but do not have native-like fluency in each. According to the fluency definition, they are not bilingual either, because they live their lives with more than one language.*

The second part of Richards and Schmidt's (2002: 2) definition above introduced the contextual component: *'the inhabitants of a particular region or a nation'*. The introduction of context is limited to a particular region or a nation, disregarding languages in contact in borders or technology-based communication among people in different parts of the world. As far as context is concerned, talking about bilingualism today is also talking about languages in contact, migration movements, countries in which people speak more than one language, etc. The level of interconnectedness is impressive and we are now past the time when we can think of ourselves only in terms of our own country. Crocket et al. (2011: 79) stated that

*we have all become elevated to the status of global citizens, both socially and as a work force. As such, we need to understand that we must be able to communicate and collaborate with people of other cultures, both in person and in virtual environments.*

Bilingualism is present in most countries throughout the world, in all classes of society as well as in all age groups. However, the importance of bilingualism in the world is not widely recognised, particularly in countries which view themselves as monolingual. Four decades



ago, Lewis (1970, as cited in Liddicoat 1991: 9) stated that 'bilingualism has been and is nearer to the normal situation than most people are willing to believe'. Currently, globalisation is opening a process of inexorable integration of markets, nations and technology (Crocket et al. 2011; Friedman 1999), although it is not a new process, since it has been taking place for the last decades. The new thing about it is the above-mentioned degree of global contact between the different languages and cultures. People moving from one country to another and creating new language communities bring about new language needs and new multilingual realities. Immigration can lead to the setting up of bilingual communities in the host country. Immigrants coming from countries speaking a language different from that of the host country need to acquire the language and so they become bilingual speaking both their own language(s)—first language(s) or L1— and the language of the host country—second language or L2—. These people may, for the sake of preservation, in turn transmit both languages to their children and ensure the survival of the bilingual community. Their bilingualism depends on their own proficiency and on the different uses they make of the different languages. For example, young children coming from a migrant family background who enter school in a different country may be called bilingual, but their use of their L1 is generally restricted to home and family purposes whilst the L2 is the one used for communication outside the home. A child who has recently arrived in a new country from overseas may have a good level of literacy in the second language, but may be unable to speak in the classroom environment. In terms of competence, a bilingual may be very proficient in both languages or may have only limited proficiency in one and be far more proficient in the other.

Other cases of languages in contact happen in some border areas between two language groups, in countries with indigenous linguistic minorities or in countries or regions in which two or more languages are official (Redinger 2010). In the first case, bilingualism arises due to economic and social factors which lead many people to use more than one language on a regular basis. For instance, the Flemish-speaking area in Belgium or the Russian-speaking area in Estonia. In the second case, the pattern of bilingualism is, however, different in different societies. For example, countries with indigenous linguistic

minorities may be bilingual, but bilingualism is normal only in the minority community (Gorter et al. 2012). The third case is related to language policies based on language protection and preservation (Loureiro-Rodríguez 2007; Herrero-Valeiro 2002, 2011; Nandi 2016a). The particularities of these policies have to do with specific sociolinguistic contexts, the civic and political resources engaged in implementing them, and the diverse historical and ideological backgrounds the issue of language has in every place. Although historically nations have used language policies to favour an official language at the expense of others, the globalisation process taking place in our present-day world in the dawn of the 21st century has given way to language policies aiming to protect and foster regional (minority or minorised) languages whose survival is in danger. Spain makes a very interesting case for study due to its complexity, as we will see in chapter 5.

At present, bilingualism is linked to preservation of cultural and linguistic diversity, which is a top-priority question for some writers, scientists, artists or politicians. According to UNESCO, half of the 6.800 languages now spoken in the world will disappear in the course of the present century, due to a diverse range of factors such as the number of speakers in a speech community, geographical dispersion or the socio-economic weight of speech communities. And it is the design of language policies that can mitigate or exacerbate the above-mentioned disappearance process. Hence its importance. Through the vertiginous technological advance, the meaning of the term has turned into a synonym for economic and cultural relationship among the people in a world that is seeing its borders fall down and that is experimenting the creation of an intricate network system inevitably leading human beings towards the so-called global conscience. García (2009: 54) stated that *'citizens in the 21st century must have at their disposal a varying and shifting repertoire of language practices to fulfill different purposes'*. She also explained the fact that

*European scholars use the term "plurilingualism" referring to the understanding that language use in the twenty-first century requires differentiated abilities and uses of multiple languages as citizens cross borders either physically or virtually.*

All the definitions trying to account for the phenomenon of bilingualism leave us with the idea that it is extremely complex from psycholinguistic, cognitive, psychological, cultural, societal, and even political perspectives (Miranda 2012). Consequently, it is inextricably connected to a number of variables:

- The linguistic and cognitive development of an individual and a society.
- The cultural and societal background of an individual.
- The educational scenarios.
- Language policy related to the political agendas of countries.
- The attitudes of individuals towards bilingualism.
- The different proficiency levels people have in different languages.
- The contexts —physical or virtual— where people are required to use one language or the others.
- The motivations people have in using one language or the others.

### 2.1.1. Types

According to Liddicoat (1991), the study of bilingualism has always been related to the development of opposites. The classical distinctions —revisited a myriad of times by different authors— between *compound and co-ordinate bilingualism* (Weinreich 1953), *additive and subtractive bilingualism* (Lambert 1975), *simultaneous and successive bilingualism* (McLaughlin 1984), *elite and folk bilingualism* (Skutnabb-Kangas 1981) or *circumstantial and elective bilingualism* (Valdés and Figueroa 1994) have always played an important role in drawing attention to the manifold aspects of bilingualism.

Regarding the distinction between co-ordinate and compound bilingualism, both terms refer to the degree of semantic equivalence between two different codes in a bilingual person. Compound bilingualism occurs when both codes merge and neither of them dominates the other. According to Erwin and Osgood (1954), compound bilingualism involves two sets of different linguistic signs related to a single set of meanings, whereas co-ordinate bilingualism involves translation equivalents in both languages corresponding

to the two different sets of representations. In other words, co-ordinate bilingualism is usually developed through experiencing of different contexts in which both languages rarely interchange, whereas compound bilingualism is developed through contexts where both languages can interchange, such as language learning in school or switching from one language to another.

As far as the opposite simultaneous-successive bilingualism is concerned, bilingualism is considered to be simultaneous when children acquire two languages prior to the age of three (Baker 1996; Goodz 1994). It is a type of bilingualism which usually takes place in homes where parents speak two (or more) languages. Bilingualism, on the other hand, is said to be successive when a language is acquired after the first language. Both languages are clearly differentiated and the additional language is learned as a second language. In successive bilingualism, second language acquisition resembles first language acquisition.

Lambert (1975) pointed up the close connection between bilingualism and language behaviour, especially between the social status of a bilingual person's languages and his or her perception of the different status of both languages. With that consideration in mind, Lambert explained two types of bilingualism: additive and subtractive. Additive bilingualism develops when both languages and the culture related to them are perceived as complementary and positive elements in relation to the child's development. On the contrary, subtractive bilingualism develops when both languages are competing. When competition occurs, one of the languages—the minority one—is usually replaced by the more socially prestigious one. Cummins (1994) differentiated between additive bilingualism, in which the first language develops and the first culture is valued whilst the second language is added; and, on the other hand, subtractive bilingualism, in which the second language is added with the sacrifice of the first language and culture, which become gradually weaker and may even peter out.

There exist several other classifications of bilingualism which are dependent on factors such as language usage and cultural identity. For example, Skutnabb-Kangas (1981) used a distinction between the so-called elite bilinguals —those who acquire their second language through formal education and who have the chance to use the language naturally— and folk bilinguals —those who acquire their second language through practical contact with speakers of that language—. Concentrating on the social status of language, Fishman (1976) used the same distinction, stating that folk bilinguals are often related to a minority language community whose own language does not have a high social status regarding the predominant language. In contrast to folk bilinguals, elite bilinguals are those who speak a high-status dominant language in a given society and also those who have the ability to speak another language which provides them additional value and benefit within the society. Taking the dimensions used by Fishman (1997), Valdés and Figueroa (1994) differentiated between circumstantial and elective bilinguals. Elective bilingualism occurs when individuals choose to learn a language, for instance, in a classroom environment. Elective bilinguals usually belong to majority language groups (e.g. Spanish-speaking Spaniards who learn English). The learning of an additional language does not make them lose their first language. Conversely, circumstantial bilingualism happens when groups of individuals need to become bilingual in order to be functional in the majority language society in which they live. As a consequence, this subtractive context makes the first language be replaced by the second one. The elective and circumstantial bilingualism dichotomy raises questions about social prestige and status.

Apart from all these opposites or dichotomies when trying to provide an open and wide-ranging set of types when it comes to classifying bilingualism, we can also come across the term *balanced bilingualism* —used by Lambert, Havelka and Gardner (1959) and, more recently, by García (2009)— to describe individuals who are completely proficient in two languages. In most cases, when the term balanced bilingual is used, it aims to describe those people who are thought to have full control of both languages in all contexts. Although it is possible to come across bilinguals who are highly proficient in both

languages, Baetens-Beardsmore (1982) argued that balanced bilingualism is almost impossible to achieve, and is, consequently, very rare. Even highly trained conference interpreters tend to have a preference for one of their languages, and will often specialise in interpreting into their dominant language despite the fact that they are highly proficient in both languages.

More recent approaches to the types of bilingualism also draw the same lines as the types above. Bhatia (2010) explored the different characteristics so as to define bilingualism. The author referred to receptive bilinguals, those who understand but do not speak a second language, productive bilinguals, early bilinguals or late bilinguals; besides these types of bilinguals, Bhatia referred to the traditional dichotomy co-ordinate or compound bilingualism as how people process two languages in the brain.

García (2009) used the distinction between subtractive and additive bilingualism, but described two additional models: recursive and dynamic bilingualism. Recursive bilingualism is related to cases when bilingualism is developed after the language practices of a community have been suppressed. It is about a community trying to revitalise their language practices. On the other hand, regarding the language-related complexity of the 21st century, bilingualism requires multiple language practices adjusting to the multilingual as well as multimodal present-day communicative acts. This is the dynamic conception of bilingualism. In the 21st-century it is necessary to

*reshape the concept of bilingualism and bilingual individuals in order to fit the communicative exigencies of the bilingual languaging needed in today's interdependent and technologically enriched world. (García 2009: 55)*

### **2.1.2. Bilingualism and cognitive development**

In a dissertation like this, focused on the analysis of the impact of CLIL on the different languages in a multilingual setting, on learning strategies, on measuring motivation and attitudes as well as on analysing code-switching, it is essential to mention the relationship

of bilingualism and language acquisition to cognitive development. There exists a gradually growing body of research suggesting a close relationship between the development of linguistic—in terms of language acquisition, language learning, bilingualism, etc.—and cognitive skills, in which the development of both language and cognition influence each other. According to Hakuta, Ferdman and Díaz (1987), when it comes to analysing that relationship, we usually come across two key questions: what is bilingualism and what is cognitive development. As seen in the previous section, the concept of bilingualism has been viewed and used in diverse ways, which can mostly be grouped in the following conceptualisations: an individual-level mental concept—a characteristic of individuals having and using two different linguistic systems—; a social and psychological concept related to individuals who endow the social world around them with meaning linking the different groups and social situations to the two languages in which they interact; and a societal conception involving the interactions among social groups and societal institutions, in which boundaries are both institutional and linguistic. These different viewpoints when it comes to conceptualising bilingualism have resulted in a lot of inconsistencies in the research literature regarding the statements made about the relationship between bilingualism and cognitive development.

When bilingualism refers to an individual who has two linguistic systems, we call it cognitive bilingualism (Hakuta *et al.*, 1987). This conception is concerned with two linguistic systems fitting into the mind of an individual, i.e. the relation between language and thought and how both systems are represented from a neurological and conceptual point of view.

The second conception is the so-called social psychological bilingualism (Hakuta *et al.*, 1987), in which what matters is the symbolism about group affiliation, i.e. how the social context can affect perceptions, attitudes and motivations; how stereotypes can lead to acceptance or prejudice; how group affiliation can dictate views of preferences; and how bilingualism is inherent to identity from a social point of view.

A third way of defining bilingualism is viewing it as a societal unit —the so-called societal bilingualism (Hakuta *et al.* 1987)—, concerned with in-group interactions, in which language is related to membership in a group. Ideally, societal bilingualism takes place when a whole community is able to communicate in both languages. However, a society is usually described as bilingual or multilingual, even though every single member does not have a command or communicative competence in the languages in question.

Although an analysis of the theories related to cognitive development is far beyond the scope of this dissertation, it would be instrumental to take into consideration the groups of theories dealing with the relationship between cognitive development and bilingualism. According to Hakuta *et al.* (1987: 285),

*As a first approximation toward appreciating the range of cognitive theories available, one can begin with commonly used typologies, particularly as relevant to bilingualism. These include nativism versus empiricism, modularity versus commonality of functions, and context and cultural sensitivity versus independence.*

As to the nativism vs empiricism dimension, while any theory related to innate factors regarding cognitive growth would not predict bilingualism to have any impact or effect on cognitive development, theories emphasising the role of learning and the environment rely on the influence of bilingualism on cognitive development.

Regarding the second dimension of theories —modularity vs commonality of structures—, they rely on the consideration of cognitive functions as separate autonomous modules or sharing a common source. According to these theories, the effects of bilingualism on cognitive growth would be partial or generalised, respectively.

In the third dimension—the cultural or context sensitivity versus independence—theories hold the view that social psychological and societal levels of bilingualism may or may not have an impact on cognitive development.



There exists plenty of research literature on the effects of bilingualism on cognition. Although it is not central to the focus of this thesis, cognition is one of the four pillars of CLIL (see chapter 3) and it is important to mention some key points that have a clear relation to our research study: 1) mental flexibility, 2) executive cognitive control and 3) creativity. The three aspects are connected to some important factors in CLIL implementation: language interdependence, code-switching, problem-solving, different learning strategies and development of higher order thinking skills.

1) Developmental research has confirmed that the acquisition of two languages at the same time entails *'greater awareness and flexibility with respect to the use of language'* (Hakuta, & Diaz 1985: 327). Several studies have reported differences between bilinguals and monolinguals with a range of experimental tasks, suggesting that bilingualism influences a broad scope of cognitive processes, such as the inhibition of irrelevant spatial cues (Colzato et al. 2008), continuous switching between mental sets (Prior & MacWhinney 2010), achieving and maintaining alert state (Costa et al. 2008; Marzecová et al. 2012), or anticipating a stimulus (Bonifacci et al. 2011). All these processes are related to cognitive flexibility, as they involve shifting between mental states, either in space, time or task set. According to Meiran (2010), by cognitive flexibility we refer to the ability to shift between mental sets – a feature that plays a key role both in purely cognitive tasks, and in social interactions.

2) As far as executive cognitive control, Costa et al. (2008) argued that the acquisition of two competing language systems creates a particularly strong demand for attentional and executive control over the languages, thus influencing bilingual children both from a cognitive and linguistic perspective. Regarding learning cognitive styles, Bialystok (2001, 2007) suggested that bilingualism alters the way that individuals conceptually structure information and states that selective attention is one of the primary cognitive benefits of bilingualism. Results from research studies undertaken to capture the nature of cognitive processes in bilinguals compared to monolinguals illustrate that selective attention develops faster in the bilingual mind (Bialystok 2001, 2007).

Bialystok (2001, 2007) also explained that bilinguals have different representations in each language for similar concepts and, therefore, they need to constantly be aware of which language they are using and which the appropriate word is to be used in a particular context. This results in executive cognitive control (Bobb et al. 2013), since the bilinguals' ability to switch between languages and select the appropriate word for use is intimately connected to the ability to better focus on relevant, or disregard irrelevant information. A further explanation refers to bilinguals' unique experience with using two languages in the same modality (spoken), differentiating them from monolingual peers, and requiring them to make the decision about how best to respond to a situation, as well as have better control over what they select. Bialystok et al. (2012: 240) explained that

*Executive control is the set of cognitive skills based on limited cognitive resources for such functions as inhibition, switching attention, and working memory. Executive control emerges late in development and declines early in aging, and supports such activities as high level thought, multi-tasking, and sustained attention. The neuronal networks responsible for executive control are centered in the frontal lobes, with connections to other brain regions as necessary for specific tasks. In children, executive control is central to academic achievement, and in turn, academic success is a significant predictor of long term health and well being.*

In Lauchlan et al.'s (2012) study, bilingual children outperformed monolingual children in terms of cognitive control, problem-solving skills, metalinguistic awareness and working memory.

3) Regarding the third of the aspects, a review of the literature (Hakuta & Bialystok 1994; Adesope et al. 2010) suggests that bilingualism has an effect on an individual's creativity, by enhancing their mental flexibility, their ability to solve problems and to perceive situations in different ways as well as the ability to maintain or manipulate these perceptions to suit the task at hand, all in ways that matched monolingual peers do not exhibit. Leikin (2012) addressed the less explored field of creativity enhancement as a

cognitive advantage bilingual children may exhibit though a research study on mathematical tasks. The results of the study confirmed that the bilingual children were more creative in their problem solving than their monolingual peers. The reason for this could be bilinguals' increased metalinguistic awareness, which creates a form of thinking that is more open and objective, resulting in increased awareness and flexibility.

Research seems to support the view that bilingualism positively influences mechanisms of cognition in terms of mental flexibility, executive control and creativity, on the grounds of the bilinguals' metalinguistic ability and their capacity for code-switching. This is something really relevant for our study. The students that took part in our research were bilingual (Spanish-Galician) and the methodology used required the use of different learning skills, problem-solving, understanding of things from different cultural perspectives and development of higher order thinking skills.

## **2.2. Bilingualism and bilingual education**

In educational terms, languages play an indisputable key role in schools, both as subjects and as means of instruction. Language policies from a general perspective and, more specifically, schools can modify the social status and consideration of a language by providing different amounts of time to the use and teaching of individual languages. Although it is easy to come across some language policies in different countries which stigmatise some regional, lesser-used, minority or minorised languages, it is as well easy to find out that those same language policies foster other forms of bilingualism in education —foreign language learning programmes— (Martin-Jones 2007: 175). Policy makers usually confront the challenge of making vital decisions regarding which languages will be included in the curriculum as foreign languages and which languages will be used as instructional and communicative vehicles in schools. Multilingual settings and communities —as it is the case of the context analysed in this dissertation— make exceptionally interesting cases for the analysis of the role of language in education. In this section I will provide an overview of the benefits and shortcomings of the various types of

bilingual education from different perspectives —education, sociolinguistics and language planning—.

As explained in section 2.1. two opposed perspectives on the nature of bilinguals exist (Grosjean 1982). On the one hand, a fractional view, which defines bilinguals as a combination of two monolinguals in one person. A holistic perspective, on the other hand, opposes the conception of bilinguals as the sum of two monolinguals and poses the fact that the bilingual's command and proficiency of two languages produces a different language system matching the needs to communicate. The bilingual is not the sum of two monolinguals, but the result of the mixture and interaction of the two languages a person can use. The debate concerning the nature of bilinguals has important thought-provoking implications for bilingual education. There exist different bilingual education programmes in numerous and diverse linguistic contexts all around the the world and I will discuss them in more detail in sections 2.2.1 and 2.2.2.

### **2.2.1. Approaches to bilingual education**

The need for bilingual education was born due to the existence of bilingualism in society. The social context in which the different approaches and models have been developing has undergone numerous changes in the course of time. Until the first half of the 20th century bilingual education was addressed to elites and it was mostly oriented towards majority —prestigious— languages such as French, English or German. According to García (2009: 112), after the the Second World War, the resolution of the UNESCO (1953) declared the importance of teaching all the children in their mother tongue. This is the reason why most of the educational systems during that period were basically monolingual. During the second half of the 20th century, the learning of other languages started to be included in the different curricula so that it could be within the reach of everyone. One of the reasons for this was ethnic activism —also called counterculture— during the 60s and 70s, which brought about the awareness of social inequality (Fishman 1972). In the broadest sense, this counterculture movement grew out of a confluence of people, ideas, events, issues, circumstances and technological developments which

served as intellectual and social catalysts for exceptionally rapid change during the era. The fight for civil rights introduced language learning in different education systems. This situation was the trigger for the development of a series of bilingual education models around the world (García 2009: 112).

In the 21st century the new dynamic sparked off by technological development made language learning and bilingual models change dramatically. The present-day concept of communication is related to a myriad of tools and ways which have turned language learning in an utterly new and different experience. The concepts of *translanguaging* (García & Wei 2014) and *plurilingualism* (Council of Europe 2001a) match the idiosyncrasy of the 21st century: connected languages, connected culture and connected world. According to García (2009:113),

*What is different now is that this translanguistic contact and use exists between ordinary people of equal power and that the direction of contact is multi-way, affecting more than one group.*

Fishman (1976) classified the different models of bilingual education into two groups: those based on language maintenance and those which promote language transition. The former include educational programmes in two different languages and their main goal is language maintenance and the development of the learners' L1 and cultural identity. The latter aim to replace the learners' L1 with the new language.

Among more recent classifications of bilingual education approaches, we find García's (2009: 123-135), who divided them in monoglossic and heteroglossic. The main goal in monoglossic models is for learners to develop proficiency in two languages from a monolingual perspective, i.e. languages are taught separately. Education programmes based on additive or subtractive bilingualism fall into this category. Conversely, heteroglossic models are related to plurilingualism and translanguaging. These models, developed out of the complexity of globalisation and global understanding, usually have common sociolinguistic objectives such as the revitalisation of languages that are likely to

disappear, the maintenance and development of minority languages at home or the fact that the relationship existing between the different languages being learned must not be competitive but strategic with a view to providing an answer to functional needs. Around this conception, García (2009: 123-135) proposed two other approaches to bilingualism that need to be considered today so as to include the different realities brought about by the 21st century: recursive and dynamic bilingualism. Recursive bilingualism refers to models in which bilingualism is developed after the language practices of a community have been suppressed. It is related to revitalisation of minorised languages. On the other hand, dynamic bilingualism is related to multilingual practices in which languages, on a plurilingual basis, are used for distinct purposes. It refers to the learner's varying degrees of abilities as well as to uses of multiple language practices which aim at people being functional regarding global understanding and intercultural communication.

Theoretical Frameworks of Bilingual Education				
	MONOGLOSSIC IDEOLOGIES		HETEROGLOSSIC IDEOLOGIES	
	<i>Subtractive Bilingual Ed. Theoretical Framework</i>	<i>Additive Bilingual Ed. Theoretical Framework</i>	<i>Recursive Bilingual Ed. Theoretical Framework</i>	<i>Dynamic Bilingual Ed. Theoretical Framework</i>
Language Ideology	Monoglossic	Monoglossic	Heteroglossic	Heteroglossic
Linguistic Goal	Monolingualism	Bilingualism	Bilingualism	Bilingualism
Linguistic Ecology	Language shift	Language addition; Language maintenance for minorities	Language revitalization	Plurilingualism
Bilingualism Orientation	Bilingualism as problem	Bilingualism as enrichment	Bilingualism as right	Bilingualism as resource
Cultural Ecology	Monocultural	Monocultural to bicultural	Bicultural multiplicity	Transcultural
Type of Children	Exclusively minority	Exclusively majority (maintenance and prestigious); Exclusively minority (maintenance)	Mostly non-dominant groups	All

Figure1. Approaches to bilingual education (García, 2009: 120)

According to Martin-Jones (2007: 165), numerous bilingual education programmes are based on a '*strong preference for the construction of parallel, monolingual spaces of learning, with strict monitoring of those spaces for their monolingualism*'.

Such a separation-oriented approach is based on the assumption that the strict division of languages facilitates the learning processes for children (Jacobson 1990: 4). Languages can be separated according to topic, person, time and place. Alternatively, different languages can be used as media of instruction on different days of the week or at different times of the day. Physical criteria can also be applied when different teachers make use of different languages. Similarly, language use can be separated spatially by assigning different languages to separate areas of the school grounds (Jacobson 1990: 5-6). Taking all this into consideration, we could say that approaches based on language separation — monolingualism— are based on fractional views of bilingualism; this perspective has also been termed '*bilingualism through monolingualism*' (Martin-Jones 2007: 165).

Bilingual education models are, however, not only influenced by approaches based on monolingualism. The concurrent approach to bilingual education is characterised by the use of multiple languages in the same classroom (Jacobson 1990: 6) and thus the relation and connection among them. This multilingualism-oriented approach is closely related to classroom translanguaging and code-switching research, which is one of the primary goals in this research study, based on common design in the different languages present in the school curriculum as well as on the use of an additional language across a non-language subject —social science—. In schools adopting this type of approach to bilingual education classroom code-switching becomes an integral part of interactions among students and teachers (Martin-Jones 2007: 165). The concurrent use of multiple languages in a classroom can be characterised by different degrees of structure (Jacobson 1990: 6). Teachers can, for instance, switch between two languages either in a non-structured way or systematically. A more usual type of multilingualism-based language use consists in introducing, presenting or reviewing lesson content in the learner's mother tongue before teaching it in the additional language, or vice versa (Jacobson 1990: 6). Classroom code-switching, resulting from this type of approach, is usually fulfilling functions such as explaining, paraphrasing, reformulating as well as introducing '*different voices in the classroom arena*' (De Mejía 2002: 76). Both separation —monolingual— and concurrent —

multilingual— approaches exist under diverse forms in educational settings across the world. Elements from both approaches lay the foundations for the various bilingual education models which will be discussed in section 2.2.2. There often exist a lack of consensus between educationalists and sociolinguists on the advantages and disadvantages of the different approaches (De Mejía 2002: 76). Whereas educationalists often agree with monolingualism-based approaches, sociolinguists usually favour concurrent approaches. De Mejía (2002: 76) argues that, from a sociolinguistic perspective,

*the direct application of general educational and linguistic principles to decisions involving classroom language use, without taking into account key aspects of the sociocultural, economic and political context of implementation, is insufficient to ensure an appropriate language development in specific bilingual classrooms.*

This emphasis on taking into account the wider social context is also reflected in Jacobson's (1990: 6) description of the the separation approaches as being artificial. Everyday-life language use is not compartmentalised, i.e. determined by time, space, person and topic. Provision and education programmes that make use of a language separation approach do not reflect language use in its social context. According to Jacobson (1990: 6), language separation can be easily structured and controlled in an educational context, but it is '*uncontrollable within the mind*'. This argument clearly supports the consideration of bilinguals as an integrated whole rather than the sum of two separate monolinguals in one person. Conversely, the language separation approach has also been viewed positively from the point of view of sociolinguistics (Baker 1996: 275). Allocating different languages to different contexts can be related to the argument usually found in sociolinguistic research that '*for a minority language to survive, it must have separate and distinct uses in society*' (Baker 1996: 275). Precisely, the context of this dissertation (analysed in chapter 5) shows a connection to this sociolinguistic view. This research study was conducted in a rural high school in Galicia, a Spanish region with two co-official languages. The relation of this kind of approach to a language policy in Spain has been an important one by virtue of the recognition of minority languages both in the



Constitution of 1978 and in the regional statutes of six communities: Catalonia, the Basque Country, Galicia, the Balearics, Valencia and Navarre. In these regions, the local language and Spanish coexist as official languages and a system of bilingual education operates. This recognition is the keystone of Spanish linguistic and cultural diversity. The point is that the approach to bilingualism has been based on separation approaches for the sake of language preservation, although in the last years, due to the introduction of multilingualism-based integrated programmes, there seems to exist an interest in harmonising language protection with including other languages across the curricula.

The existence of two contrasting approaches to language use in education as well as the lack of consensus among educationalists, linguists and policy-makers have given way to a diverse range of bilingual education programmes which I will deal with in the following section.

### **2.2.2. Bilingual education programmes**

Bilingual education programmes aim to promote different degrees of bilingualism among students. Although there exist a lot of differences between the different programmes, which make the conception of bilingual education look confusing as well as lacking in common-core principles, they all converge into some commonalities. Diverse as they are, the general principle common to all of them is that additional language learning is incidental — i.e. it takes place when attention is focused on doing different things —and implicit—, i.e. it takes place when learners are not aware of it—. Freeman (2004: 42), as cited in Redinger (2010: 86) explains that

*part of the confusion about bilingual education is that the same term is actually used to refer to a wide range of programs that may have different ideological orientations toward linguistic and cultural diversity, different target populations, and different goals for those target populations.*

According to Lorenzo, Trujillo & Vez (2011: 173-182), the different models of bilingual

education are related to a number of variables concurrent with the four main types posited by Baker (1996: 123) —see below—: submersion, transitional, immersion and maintenance. García (2009: 219) added more types —prestigious, developmental, two-way immersion, CLIL and multilingual— and presents a scheme showing the different models organised within the theoretical framework seen above (see figure in section 2.2.1.):

Theoretical Framework and Bilingual Education Types				
	<i>Subtractive Bilingual Ed.</i>	<i>Additive Bilingual Ed.</i>	<i>Recursive Bilingual Ed.</i>	<i>Dynamic Bilingual Ed.</i>
Language Ideology	Monoglossic	Monoglossic	Heteroglossic	Heteroglossic
Linguistic Goal	Monolingualism	Bilingualism	Bilingualism	Bilingualism
Types	<ul style="list-style-type: none"> <li>transitional</li> </ul>	<ul style="list-style-type: none"> <li>maintenance</li> <li>prestigious</li> <li>immersion</li> </ul>	<ul style="list-style-type: none"> <li>immersion revitalization (heritage language immersion)</li> <li>developmental</li> </ul>	<ul style="list-style-type: none"> <li>poly-directional or two-way (dual lang., bilingual immersion; two-way immersion)</li> <li>CLIL and CLIL-type</li> <li>Multiple multilingual</li> </ul>

Figure 2. Theoretical Framework and Bilingual Education Types (García, 2009:123)

#### a) Transitional models

They are subtractive-natured bilingual programmes that only make use of the child's L1 during the first years while he or she is learning the L2 or the environmental majority language. They are usually temporary and bring about permanent monolingualism. They are addressed to migrants and their primary goal is using L1 with a view to facilitating access to L2 or the language of the host country. Lorenzo, Trujillo & Vez (2011: 89) linked this type to bilingual programmes used with indigenous communities in America, Canada or Australia, highlighting the fact that the assimilatory character of these models bring about the so-called '*educational colonisation*'.

## b) Maintenance models

The primary goal in this type of additive bilingualism programmes is try and preserve the minority language spoken at home during the acquisition process of the majority language. These models are usually based on delivering subjects in two different languages as well as on including the cultural component. Regarding the Spanish case, maintenance models are usually associated to the claims for self-determination in some autonomous communities such as Catalonia, the Basque Country or Galicia —context of our research study—.

## c) Prestigious or elitist models

In these models students learn through two prestigious languages, which are kept separate during the instruction, and language learning does not encompass any relation to cultural identity. Prestigious bilingual education has traditionally been associated with the idea of language as cultural or symbolic capital to be used on the market of social interaction (De Mejía 2002: 36). This is the reason for majority languages with international prestige to be the ones used in these models.

## d) Immersion models

Immersion programmes represent one of the most widely used and most successful forms of bilingual education (Baker 1996: 208). Skutnabb-Kangas (2000: 614) defined immersion education as

*A programme where linguistic majority children with a high-status mother tongue voluntarily choose (among existing alternatives) to be instructed through the medium of a foreign (minority) language, in classes with majority children with the same mother tongue only where the teacher is bilingual so that the children can at the beginning use their own language, and where their mother tongue is in no danger of not developing or of being*

*replaced by the language of instruction - an additive language learning situation.*

There exist quite a few variations of immersion programmes:

—Children taking part in *early immersion programmes* are taught through a foreign language from the very beginning of their education at pre-school level.

—*Delayed immersion* usually starts at some point in elementary or primary school.

—A further distinction can be established between *total and partial immersion*. According to Freeman (2004: 5), the former consists in teaching up to 100% of the curriculum through the medium of a foreign language, whereas in the latter a foreign language of instruction is used in a percentage between 50% and 90%. Well-known examples are the French immersion programmes which were first implemented among English-speaking students in Canada. Variations of this model of bilingual education have been applied to various linguistic contexts around the world, such as Spain, Finland, Australia and the UK (Baker 1996: 208).

#### e) Submersion models

When the immersion characteristics are related to a model in which the instruction is carried out in a majority L2 but the students speak minority languages, the model is referred to as submersion. It is an example of subtractive bilingualism since its primary goal is cultural assimilation and monolingualism in the majority language used for instruction. Baker (1996: 195) explained that '*submersion contains the idea of a student thrown into the deep end and expected to learn to swim as quickly as possible without the help of floats or special swimming lessons*'.

Submersion programmes set up subtractive language learning environments that neglect the student's minority L1 and focus on the use and the importance of the majority language (Skutnabb-Kangas 2000: 582). In the USA, for instance, the basic aim of

submersion is teaching Spanish-speaking students through the medium of English alongside native English speakers and in the presence of a monolingual English-speaking teacher (Baker 1996: 195).

#### f) Developmental models

Within the scope of additive bilingualism we can also find 'Heritage Language Education' or 'Development maintenance' bilingual education, which offers minority language children instruction in their L1 —home, native or heritage language—. The majority language is included in the curriculum and is taught as a foreign language. Participating students typically come from the same linguistic community. The aim of Heritage Language Education is for minority language children to become fully bilingual (Skutnabb-Kangas 2000: 601; Baker 1996: 209). This form of bilingual education is usually referred to as 'one-way developmental bilingual education (DBE) programs' (Freeman 2004: 46). Heritage Language Education values the teaching of the majority language and, therefore, aims to create full and additive bilingualism. According to Baker (1996: 238), the psychological benefits of this form of bilingual education come from the appreciation of the children's L1 at school, which can positively make an impact on their sense of cultural identity and self-esteem.

#### g) Content and Language Integrated Learning —CLIL—

Based on curricular integration, CLIL models typically consist in teaching and learning curricular content through the use of an additional language (Marsh 2002; Coyle 2007; Lorenzo *et al.* 2011; San Isidro 2010). Since this model is the subject of analysis in this thesis, I will deal with it from a pedagogical perspective on a separate chapter (see chapter 3)

The different bilingual education programmes seen above clearly stand for the outcomes of conscious decisions about the inclusion/exclusion of certain languages in educational

curricula. In chapter 5 I will analyse how language policy and provision have affected language teaching and learning in the Galician case, in general, and in our research, in particular.

## **2.3. Factors influencing language learning**

### **2.3.1. Introduction**

As explained in chapter 1, there are three main aspects that constitute the main focus of this thesis:

1) The triangulation-based analysis of students', families' and teachers' perceptions of language learning —related not only to both environmental and additional languages but also to CLIL implementation— through measuring students' and families' attitudes and motivations along with families' and teachers' opinions during the course of two years.

2) The analysis of students' results in the three curricular languages —Galician, Spanish and English—and in the CLIL subject —Social Science— through tests held in three different moments between 2012 and 2014.

3) The analysis of data related to CLIL students' oral code-switching elicited from monitoring integrated tasks during two years.

In this section —dealing with factors influencing language learning— I will only focus on the three main factors that are closely related to the goals of my research: the attitudinal/motivational component, language interdependence and the factors related to the pedagogical/methodological component.

## 2.3.2. Attitudes and motivation

### 2.3.2.1. Conceptualising attitudes and motivations

Although I have already dealt with it briefly in section 2.2. and I will delve into it in chapter 5, the context of this research is a point of paramount significance so as to understand its relation to and impact on the existing and developing attitudes and motivations towards language learning. The context of this research is a multilingual one, within an Autonomous Community —Galicia— with two co-official languages, in which language provision regarding language policy has been an important issue by virtue of the recognition of minority languages both in the Constitution of 1978 and in the regional statutes. Language policy in Galicia has been based on a maintenance-development immersion (see section 2.2.2.) provision as far as the Galician language is concerned. Regarding attitudes towards it and motivation to learn (through) it, this maintenance-development policy has run parallel to the attempts of overcoming the diglossic consideration of Galician as a low-prestige minority language (Hermida 2001; Herrero-Valeiro 2002, 2011; Kronenthal 2003; Loureiro-Rodríguez *et al.* 2013; Nandi 2016a, 2016b).

Furthermore, from the late 90s on, Content and Language Integrated Learning —CLIL— has been gradually introduced in the curricular system on an experimental basis. Interestingly, the introduction of additional languages as vehicles for teaching non-linguistic curricular subjects has had a large effect on language policy design and on school language projects, bringing about radical changes in teaching and learning styles as well as in teacher training (Calvo & San Isidro 2012). Over the past years, the Galician Educational Department has been trying to find the answer to the question of how to harmonise a language policy based on protection and preservation of Galician with the inclusion of other languages in the curriculum, in line with European guidelines on plurilingualism. In June 2010, a decree on Plurilingualism (Decree 79/2010) was published by the Educational Department, officially bringing an additional or foreign language as vehicular into public education —mainstreaming CLIL—, setting out that one third of

subjects must be taught in a foreign or additional language —mainly English— with the two remaining thirds taught in the two co-official languages —Galician and Spanish—.

This trilingual or threefold language policy has brought about a new perspective in language teaching and learning, which has made an impact on teachers', students' and families' perceptions of the different languages (Consello Escolar de Galicia & ICE 2012; Barreiro & San Isidro 2009; Calvo & San Isidro 2012). These perceptions are related to the attitudinal and motivational components regarding (additional) language learning. Attitudes and motivations are two individual learning factors which are closely interrelated and are usually analysed together for the sake of research. Whereas language attitudes refer to positive or negative feelings about a language and the connections a learner may make through it (Gardner & MacIntyre 1993), Gardner (1985) described motivation as a combination of three things: the willingness or the desire to learn the language, positive attitudes to the learning of the language, and the effort put in learning. Research studies conducted in very different contexts (Gardner and Tremblay 1998; Lasagabaster 2005; Lasagabaster and Huguet 2007) have proved that the attitudes and motivation to learn an additional language can vary not only from one language to another, but also within groups of students with a different age range. An interesting case of research on attitudes in a trilingual model is the Basque Country (Lasagabaster 2005, 2008; Lasagabaster e Huguet 2007; Cenoz 2008a, 2008b, 2009). The design of language policies that put majority languages on a level with minority ones has made the latter be perceived and understood under a different new light. This is exactly what has happened in the Galician provision. Nonetheless, a problem lies in the fact that the 33% language use policy does not take into account the socio-linguistic situation. Dichotomies in the diglossic use of Galician —urban/rural, prestige/non-prestige, etc.— can make an impact on the attitudes/motivation of students in the different places. This is the reason for analysis of attitudes and motivation to language learning to be one of the primary goals in this thesis.

Conceptualising the term *attitude* is a really complex and difficult task to approach due to its multifaceted nature and its inseparable connection to the motivational component. As



said above, attitudes are present in social perceptions and this is exactly why they comprise a distinct range of components: affective, cognitive and behavioural (Garrett et al. 2003: 3). In a(n) (additional) language learning environment, students' attitudes reveal, either directly or indirectly, those general perceptions from society: general opinions or beliefs, emotional reactions, specific behaviour and positive/negative evaluation of the teaching/learning process. They also reveal the motivations towards learning. In other words, when learners enter a language classroom, they bring with them their opinions, their beliefs, their language learning styles and their motivations.

Regarding the inseparable connection between attitudes and motivations mentioned above, Gardner (1985), dealing with his socio-educational model, explained that the learner's attitude towards an additional language and their integrativeness —i.e. how open a learner is to another culture— have a massive impact on the level of motivation. According to him, motivation can be understood from three different perspectives: the one related to the effort to achieve a goal, the one related to the desire to learn a language and the one related to the satisfaction with learning that same language. Gardner's most recent version of the socio-educational model can be found in Masgoret and Gardner (2003). The model draws a line between attitudinal and motivational variables, considering integrativeness and learner's attitude towards the learning situation attitudinal factors, as distinct from motivation, which can be integrative and instrumental. They claimed that the learner's integrativeness and attitude towards learning have a great impact not only on their motivation but also on their achievements.

From the perspective of research, due to their multi-faceted nature, attitudes are not directly observable but are inferred from observable responses (Eagley & Chaiken 1993: 2). What a researcher can do is elicit such observable responses by providing people with a set of stimuli —such as direct questions— aiming to make people react towards particular attitude objects. In relation to languages, research oriented towards language attitudes is primarily focused on assessing the reasons for positive or negative consideration —*favourability* and *unfavourability*— of particular languages. Both

considerations in relation to languages may provide a picture of the status of a specific language in a society (Baker 1992: 30). According to Baker (1992: 29), researchers must clearly define the target of their research questions since attitudes can be measured and analysed in relation to a new language, a minority language, language communities and minorities, uses of a specific language, language preferences, etc. Research on language attitudes might reveal, for example, whether language attitudes may cause particular social groups —for instance, speakers of a minority language— to be more or less successful in various settings, such as the labour market or the educational system (Garrett et al. 2003: 12).

Interestingly, language attitude research is usually linked to language planning and language policy, because speech communities often share attitudes towards language practices —in terms of development and implementation— stemming from those language policies (Spolsky 2004: 14). Education makes a particularly interesting case for the analysis of language attitudes. According to Garrett et al. (2003: 19), language attitudes can considerably influence students' academic achievements and career opportunities. The development and implementation of a language planning and policy along with the instrumental role of language in education are one of the focuses of this thesis, in which the analysis of language attitudes consists in triangulating teachers', students' and families' perceptions in relation to language learning in an educational context (see chapter 7). In chapter 4, I will analyse the research literature related to the impact of CLIL on attitudes and motivations.

In this section I have provided a general overview on the different conceptions of the terms *attitude* and *motivation* as well as the different implications of their analysis in research. Even though there exist manifold perspectives on the definition of the concepts due to the fact that attitudes and motivation fall into the scope of the speaker's internal nature (Garrett et al. 2003: 2), consensus has considerably been reached with regards to their components.

### 2.3.2.2. Components and variables in attitude/motivation analysis

In general terms, according to Garrett et al. (2003: 3), it is widely agreed on that attitudes comprise cognitive, affective and behavioural components. In other words, evaluative responses to a set of stimuli can be classified in terms of cognition, affection and behaviour. Cognition-based evaluative responses are considered 'beliefs', i.e. the connections or associations that people set up between an attitude object and its various attributes (Eagley & Chaiken 1993: 11). Fishbein (1967: 259) stated that '*the cognitive component refers to beliefs about the nature of the object and its relations to other objects*'. In language attitudes, this kind of connection can be found in a person's belief that learning a particular language will get them a better job in the country in which that language is spoken.

When evaluative responses are affective, they consist of feelings and emotions. According to Eagley & Chaiken (1993: 11), the affective component of an attitude can also be a '*sympathetic nervous system activity*' experienced by people when confronted with certain attitude objects. The affective component in attitudes is usually the focus of inquiry in attitude-based research (Fishbein 1967: 257) and it gains much more importance due to its connection to the cognitive component (Garrett et al. 2003: 10). In other words, whereas beliefs (i.e. cognitive component) are generally free from affective implications, they may come from or result in affective reactions (Garrett et al. 2003: 10). As a consequence, attitude researchers must consider both people's beliefs (cognitive component) and feelings (affective component) when dealing with attitudes.

Behaviour is the third attitude-related component. It is usually referred to as the '*behavioural*', the '*conative*' or the '*action*' component (Eagley & Chaiken 1993: 12; Fishbein 1967: 259). A number of definitions of the attitude-related behavioural component have been put forward. It has been described as both showing people's behavioral intentions and leading to actions (Eagley & Chaiken 1993: 12). Considering this definition, a behaviour-based response does not necessarily involve actual behaviour, but can just

represent a person's willingness to act. Fishbein (1967: 259) set up a close link between the behavioural and cognitive components in the following definition:

*Both the cognitive and action components of attitude can be viewed as beliefs about the object. The cognitive component refers to beliefs about the nature of the object and its relations to other "objects", while the action component refers to beliefs about what should be done with respect to the object.*

In a more specific way, in the two-year longitudinal study I carried out (see chapters 6 and 7), I based the questionnaires used on Gardner's socio-educational model to measure students' and families' attitudes and motivations towards language learning. In Gardner's model, the three general components above merge. Gardner's model focuses on the idea that additional language learning is '*acquiring symbolic elements of a different ethnolinguistic community*' (Gardner 1979: 193, cited in Ellis 2004).

Gardner defends that the learner's attitude towards the additional language and their *integrativeness* have a massive impact on the level of motivation. As seen in the previous section, motivation can be understood from three different perspectives: the one related to the effort to achieve a goal, the one related to the desire to learn a language and the one related to the satisfaction with learning that same language. Gardner's most recent version of the socio-educational model can be found in Masgoret and Gardner (2003). They claimed that the learner's integrativeness and attitude towards learning have a great impact not only on their motivation but also on their achievements. Interestingly, they stated that a learner's attitudes towards the learning process can be elicited by means of their assessment of the course, the materials, the teacher and even the teaching/learning environment. They called motivation goal-oriented behaviour and considered it as a combination of three components: effort, willingness to be proficient in the foreign language, and the 'affect' that is experienced when learning the additional language.

The model proposes that ability and motivation are two primary individual difference variables involved in language learning. The student showing higher levels of ability —

intelligence and language aptitude— will tend to be more successful in learning the language. In a similar way, students showing higher levels of motivation will do better than the ones with less motivation in general terms. Gardner's model considers both ability and motivation as being involved in both formal and informal language learning contexts. In the model, both contexts —formal and informal— are seen as leading to both language and non-language outcomes.

The socio-educational model is primarily concerned with motivation and factors that serve the purpose of supporting it. The individual's motivation to learn an additional language is related to two types of variables: attitudes towards the learning situation and integrativeness. It seems pretty obvious that the nature of the learning situation will influence the learner's level of motivation. For example, a perfectly skilled teacher with a good command of the language, a well-designed curriculum, careful lesson plans and evaluations processes and tools will clearly foster higher levels of motivation. Regarding the other variable, the concept of integrativeness is related to the fact that some individual learners would be more open to other ethnic, linguistic and cultural groups than others, and this openness is precisely the factor that could influence their motivation to learn the other language. Other researchers have put forward similar constructs but with different labels. For instance, Yashima (2002) and Yashima *et al.* (2004) showed that a construct labelled international posture influences motivation by connecting a series of attitude and motivation variables to 1) additional language achievement and/or desire to communicate and 2) communication frequency in the additional language. In both research studies above, international posture was defined as '*a general attitude toward the international community that influences English learning and communication among Japanese learners*' (Yashima 2002: 62-63) and was measured in terms of intercultural interactions and interest in foreign affairs, as a reflection of an openness to other cultures. The point is that integrativeness stands for a socially relevant, as distinct from an educationally relevant construct.

Gardner's socio-educational model also proposes that other variables are involved in additional language learning. For instance, language anxiety can obviously play a role in language learning, although the role might be complex and difficult to analyse. Anxiety may well have motivational properties which might facilitate achievement. It also has distressing properties that may interfere with learning and production. Language anxiety is generally considered to be negatively connected to both achievement and self-confidence when using the language.

Another variable involved in second language achievement is instrumental orientation — inextricably linked to achievement—. Individuals might want to learn a language for practical reasons. This is why it would be reasonable to expect that the relationship between instrumental orientation and achievement would be purely mediated by motivation. This clearly entails the fact that the levels of motivation are influenced and maintained by attitudes towards both the learning situation—and integrativeness— and instrumentality.

Gardner's model does not formally refer to contextual characteristics, although they are an integral part of the model. It is obvious that quality instruction leads to quality learning.: how lessons are presented, scaffolding (see section 3.1.4.), careful planning of goals, alignment of planning and tasks, etc. will all promote learning. Opportunities to use the additional language reinforce and consolidate what is learned. The socio-cultural background offers situations, scenarios, expectations, role models, etc. which can boost language achievement. Low-quality instruction, on the other hand, offers few opportunities to use the language, inhibiting language learning and achievement. However, these environmental factors work together with the individual's personality variables, such as sociability, introversion, or extroversion, which influence the individual's natural tendency to respond in different situations.

Regarding the instruments in the model, Gardner developed the Attitude Motivation Test Battery —AMTB— (Gardner 2004), whose adapted shortened version was the one I used

to monitor students' attitudes/motivations during the research project (see chapters 6 and 7). The main components of the test were related to the variables seen above:

### *Attitudes towards the Learning Situation*

Attitudes towards the learning situation refer to affective reactions to any classroom-related aspect: the quality and availability of materials, classroom atmosphere, the curriculum, the teacher, etc. In terms of the AMTB, these attitudes are assessed through the participants' evaluation of the course and the teacher.

### *Integrativeness*

Integrativeness is related to group-specific affective reactions. It involves the individual's orientation to language learning focusing on communication with members of the additional language group, interest in foreign groups and positive attitudes toward the target language group. In other words, it shows an openness to other cultures in general, and the foreign culture in particular. Integrativeness-oriented individuals do not usually focus on their own ethnolinguistic community as part of their own identity, but are willingly able to accept and adopt features of another language group as part of their own behavioural repertoire.

### *Motivation*

As seen above, there are quite a few facets of motivation worth examining but Gardner believes that the fundamentals are identifiable by three measures: effort and persistence, the willingness to learn the language, and the affective reactions towards the learning of the language.

### *Language Anxiety*

Anxiety about using the additional language could happen in different situations and, as said above, it might well have motivational properties which might facilitate achievement or distressing properties that may interfere with learning and production. Language anxiety is generally considered to be negatively connected to both achievement and self-confidence when using the language. For the purposes of the socio-educational model, Gardner distinguishes two different situations: the language classroom and the variety of contexts outside of the classroom where the additional language might be used.

### *Instrumentality*

This notion refers to the practical purposes for which language is studied. As happens with integrativeness, there could exist a diverse range of reasons for such feelings to vary from the cultural setting to the individual experiences of the learner.

All the components and variables perfectly matched the purpose of my research project since all of them are closely related to language learning success and achievement. I adapted Gardner's AMTB (Gardner 2004) to the context of our research for the sake of comparing two different groups of students (CLIL vs. non-CLIL) in terms of attitudes and motivation, as we will see in chapters 6 and 7. Some of the components were also used to design the questionnaires aiming to measure parents' attitudes and motivations (see chapters 6 and 7).

### **2.3.3. Communicative competence and language interdependence**

The second factor influencing language learning is language communicative competence and the relationship between and influence of the different languages, above all, in a multilingual setting such as the one I used for research. A number of aspects related to learners' first and second languages influence and shape their additional language learning. Among these aspects we can find the linguistic distance between the different



languages, the learners' level of proficiency in their first language(s) and their knowledge of the additional language, the dialect(s) used, the status of the students' language in the community —majority vs minority language— and the societal attitudes towards the learners' first language.

Regarding the learner's level of proficiency in their first language —including oral language and literacy, metalinguistic development, formal and academic features of language use, and knowledge of genre and style— it affects additional language learning. The more academically specialised the students' native language knowledge and abilities, the easier it will be for the students to learn the additional language (Harrison & Kroll 2007; Proctor et al. 2006; Gottardo & Mueller 2009; Arab-Moghaddam & Sénéchal 2001). This is the reason why language learning was monitored in this research study in two different ways:

1) Results in the three curricular languages —Galician, Spanish and English— were elicited in three different moments through standardised tests (see chapters 6 and 7) with a view to analysing progression considering the four skills: listening, speaking, reading and writing.

2) Code-switching was analysed through monitoring students' performance in oral tasks. The purpose was obtaining data about how and how much languages influence each other in the course of a two-year CLIL programme implementation (see chapters 6 and 7).

As far as research literature is concerned, the role of first language knowledge in additional language learning is well-documented regarding development of a phonological inventory (Harrison & Kroll 2007), lexical skills (Proctor et al. 2006), grammatical competence (MacWhinney 2002), and literacy abilities (Gottardo & Mueller 2009). There is quite an amount of literature dealing with the transfer of first language literacy skills to the learning of reading in the additional language (Lindsey, Manis & Bailey 2003; Nakamoto, Lindsey & Manis 2008), along with literature about transfer of oral language skills from first to additional language (Proctor et al. 2006). Learning vocabulary —especially important in

CLIL— can pose real challenges for language learners, regarding both the number of words that must be acquired, and the depth of lexical representations that must be developed.

In bilingual or multilingual education, as is the case with our research study, two or more languages interact in the learner's mind, influencing each other. The languages are not considered to be watertight compartments, but blended, entwined and interrelated in the brain, where transfer from one language to the other can occur (Cook 2001). This is related to the plurilingual approach in the Common European Framework of Reference for Languages —CEFR—, which emphasises the fact that

*as an individual person's experience of language in its cultural contexts expands, from the language of the home to that of society at large and then to the languages of other peoples (whether learnt at school or college, or by direct experience), he or she does not keep these languages and cultures in strictly separated mental compartment, but rather builds up a communicative competence to which all knowledge and experience of language contributes and in which languages interrelate and interact. (Council of Europe, 2001a)*

This conception of multilingual communicative competence goes back to Cummins (1979), who posited the linguistic interdependence hypothesis, which states that language and literacy skills can be transferred from one language to another in a bilingual development process. In other words, first language knowledge can be positively transferred during the process of second or additional language acquisition. The linguistic knowledge and skills in the first language can be instrumental in the development of the corresponding abilities in the additional language. This is the reason for it to be crucial to analyse the literature dealing with transfer in multilingual educational settings.

Regarding the analysis of transfer of oral skills, most of research studies have focused on the relationship between oral language skills in the first language and literacy skills in the additional one, generally showing that first language vocabulary skills were connected to better performance in the additional language (Atwill et al. 2007; Mumtaz & Humphreys,

2002; Proctor et al. 2006). Nevertheless, it seems that there exist few studies on the relationship between oral language skills in the first language and those in the additional language. Ordonez et al. (2002), in a research study about about oral transfer across two languages in bilinguals, examined word knowledge through the analysis of children's performance on word-description and definition tasks and found significant correlation between vocabulary range in the first and the additional languages. Gottardo and Mueller (2009), however, did not find significant relationships between the knowledge of vocabulary in L1 and L2 vocabulary knowledge.

As far as the development of reading skills is concerned, research dealing with young bilingual and multilingual students has shown that reading development in the additional language uses similar skills and strategies as in the first language (Arab-Moghaddam & Sénéchal 2001). The development of phonological awareness in their first language helps learners to transfer that skill to the additional language(s). Nevertheless, the implication is that young students need to have sufficient knowledge of the new language to be able to discriminate individual sounds and syllables. The transfer of reading skills and strategies from first language to the additional language(s) depends on the student's reading ability in both the first language and the additional one.

Also in relation to learning to read in an additional language, research has shown that competences in oral language help decoding as well as word recognition (Bossers 1991; Carrell, Devine & Eskey 1998). However, the extent to which the transfer of reading skills and strategies takes place very much depends on the language and writing system. For instance, for the majority of students in Europe, positive transfer of reading skills can easily occur due to the fact that the linguistic distance between their mother tongue(s) and English —I am mentioning English as an additional language here because it is the foreign language used in our research study— does not show a massive gap as there exist quite a few similarities in vocabulary, concepts, writing systems, and so on and so forth. According to Chiswick and Miller (2004), language distance between the first language(s) and the additional one clearly influences the speed with which additional languages are learned.

Research has also demonstrated that transfer of reading skills and strategies between first and additional languages is influenced by different language-related variables including how transparent the writing system is, its syllable structure, the length of its words, symbols, phonological units, agglutination as well as frequency of words (Duibhir & Cummins 2012; Seymour et al. 2003; Van Ginkel 2008).

Apart from the language-related elements, other variables such as the teachers' language level, the students' degree of motivation, the methodology used, the hours per week devoted to language instruction and learning, the exposure to the additional language outside the classroom, and the value put on both the additional language and the first language play really important roles (Bot & Herder 2008; Enever et al. 2009; Nikolov 2006; Thijs, Trimbos, Tuin, Bodde, & de Graaff 2011). This clearly shows how complex multilingual education can be as well as how important it is to understand the context in which it takes place.

The goal of this section has been to give a general panorama on the concepts of communicative competence and language interdependence. In chapter 4 I will review the research literature regarding the impact of CLIL on the different languages in the curriculum as well as code-switching that have been considered when designing this thesis.

#### **2.3.4. Methodological factors**

The third factor in language learning related to the object of this thesis is the methodological component, which makes an impact on curriculum planning, task-design and the use of language by both students and teachers. The CLIL programme analysed in our research study was based on integrating Social Science and English as an additional language, but it involved as well the students' first language(s) —Spanish and Galician— as well as a project-based model in which more areas were involved (in chapter 3 I will provide an in-depth analysis of the project from a pedagogical perspective).

In this section I will just focus on a general explanation of the two most important methodology-related aspects which play a really important role in the students' language learning: on the one hand, curriculum integration and, on the other hand, code-switching and translanguaging. Curriculum integration will be thoroughly dealt with in chapter 3 and code-switching will be analysed in section 4.5., in chapter 4.

### **2.3.4.1. The complexity of integration in CLIL**

Content and Language Integrated Learning —as seen in section 2.2.2. and explained in chapter 3— is concerned with a set of educational practices in which a language other than the students' first language(s) is used as the vehicular language. In the course of the years, existing research has been following the law of the pendulum regarding the beneficial effects of CLIL for language and content learning. From the initial enthusiastic views on CLIL effects (Marsh 2002; Coyle 2007; Coyle et al. 2010; Dalton-Puffer 2007; Dalton-Puffer & Smit 2007; Lasagabaster 2008; Barreiro & San Isidro 2009; San Isidro 2010; Calvo & San Isidro 2012; or Naves 2009), *'the pendulum has swung to the other extreme'* (quoting Pérez Cañado 2016b: 2) questioning the validity of the research conducted from an opposite perspective, based on the lack of homogeneity as well as on multi-faceted problems in its implementation (Pérez Cañado 2012; Paran 2013; or Bruton 2015). The point is that, when analysing existing research on CLIL, it seems to be clear that the interest has mainly addressed the effects of CLIL on learning, especially on additional language learning. However, considering that a core concern in CLIL is the fusion of different learning strategies, on different content and on different languages, it seems to be logical to think that more attention needs to be paid to curriculum integration, in general, and to content and language integration, in particular.

What exactly is integrated curriculum and what is its relationship to CLIL? In its simplest conception, it is about making cross-curricular connections, connections that will have an impact on curriculum design as well as on lesson planning (San Isidro 2009b). In CLIL the connections take place —in its most basic form— between content and language.

However, integration is not a matter of straightforward conceptions and distinctions but a complex multi-faceted web of influences and connections between different subjects, topics, languages, projects, etc. And it is precisely because of its complexity that integration has implications at different levels of educational practice: curriculum planning, stakeholders' perspectives and, most importantly due to its connection to our research, classroom practices.

The first implication refers to decisions that need to be made on which subjects will be integrated, on which aims, and also on which tools the teachers will need to plan integrated teaching. This is related to the threefold classification of curriculum integration postulated by Drake and Burns (2004): multidisciplinary, interdisciplinary and transdisciplinary (see section 3.1.3).

The second implication highlights the importance of how the implementation of any plan is dependent on the different participants' perceptions and beliefs. For example, an instrumental consideration for both research and practice is how teachers' views of their role as CLIL teachers are related to their own conceptualisations about integrating language and content (see 7.1.3. and 7.2.2.).

Regarding classroom practices, i.e. methodology/pedagogy, integration-based teaching processes clearly involve varied opportunities to address content and language. More knowledge is needed about such processes to properly understand integration as well as implement it in pedagogical practice. This third implication is inextricably connected to this thesis. Research on attitudes, results and changes in code-switching is primarily based on a two-year monitoring of students' enrolled on an experimental CLIL programme, whose implementation is based on integration. Curriculum integration in our project was naturally linked to some pedagogical fundamentals related to the way the students learn languages: task-based and project-based learning, communicative teaching, a multilingual approach, collaboration and interaction-based scenarios (see chapter 3).

### 2.3.4.2. Code-switching and translanguaging in integrated tasks

As said above in 2.3.4.1., integration as well as its impact on classroom practice are the core of the pedagogical part in our project (see chapter 3). In this section I will explain a couple of concepts that show a close relation not only with the methodology —classroom practice— used but also with the results obtained (see chapter 7). During the two-year project, language interdependence between the different languages in the project showed two phenomena related to students' language learning, code-switching and translanguaging. I will define each phenomenon considering both existing literature and their functions in a multilingual setting (the classroom). Both of them are a crucial part in the longitudinal research described in this thesis (see chapters 5, 6 and 7).

Code-switching is usually described as a bilingualism-related activity in which more than one language —most typically the learner's' first language and additional language— are used either *intrasententially* or *intersententially* (Cook 2001; García 2009). Traditionally, code-switching has not been positively appreciated in additional language classrooms where the learners' target language and first language are separate and divided. This consideration might be explained by the general belief that switching from one language to another is the mere result of having a partial or incomplete proficiency of the target language (Reyes 2004).

Interestingly, quite a few researchers now believe that code-switching prototypically takes place in multilingual settings —as the one in this thesis— for the sake of different communicative functions. For instance, exchanges between multilingual speakers are seen today as less predictable, as these speakers seem to alter or manipulate their language codes in order to: set up multicultural identities among themselves (Kramsch & Whiteside 2007); perform cognitively demanding tasks (Reyes 2004); or express meaning more accurately (Zentella 1997).

Furthermore, code-switching is also perceived today as a phenomenon that has an interpersonal and social function by which multilingual speakers try to monitor and

accommodate to their interlocutors' language use. In relation to this, research on multilingualism has analysed the positive effects of code-switching in language planning (Zentella 1997). According to Creese and Blackledge (2010), in current multilingual contexts, code-switching is sometimes used by language curriculum developers and stakeholders to assist and complement language practices that multilingual speakers are engaged in.

The second phenomenon is translanguaging, a term which is relatively recent and commonly used in line with code-switching in the research literature. Translanguaging is, the same as code-switching, about multilingual speakers' changing between languages. However, it is related to systematic use of and change between the different languages. In other words, it refers to strategic and systematic classroom language planning combining two or more languages within the same learning task. It aims to help multilingual speakers to make meaning, shape experiences, and gain a deeper insight of the languages in use and even of the content being taught (Cenoz & Gorter 2011). According to García (2009), translanguaging refers to processes which entail multiple discursive practices, in which learners introduce classroom language practices into their own language repertoire. Translanguaging may create a social space for multilingual speakers *'by bringing together different dimensions of their personal history, experience and environment, their attitudes, beliefs and performance'* (Wei 2011: 1223).

The flexible and strategic use of the different languages makes learners experience and benefit from the development of their plurilingual competence by means of learning across languages. This allows learners to be free from the constraints of language separation or sociolinguistic matters, such as language prestige and identity, something that usually affects the performance of speakers of minority languages in traditional monolingual classrooms (García 2009).

Practice and understanding of code-switching and translanguaging is still rather limited. According to Canagarajah (2011, 2014) and Hornberger and Link (2012) there is no



specific set of teaching strategies with a number of commonalities across classroom settings to make both terms generalisable in a pedagogical way. Nevertheless, the implementation of multilingual practices is considered to be an appealing task for education professionals and researchers, and it may allow multilingual learners to be aware and use a wider range of language practices as well as develop rich and varied communicative repertoires (García 2009; Hornberger & Link 2012).

Both code-switching and translanguaging make an interesting case for research on multilingual settings and this is the reason for them to be one of the main focuses of this thesis. In chapter 3, I will analyse the pedagogical fundamentals of the project. Section 4.5. is devoted to an in-depth analysis of the research literature related to code-switching.

## CHAPTER 3: CLIL DESIGN AND PEDAGOGY

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### 3.1. Introduction

With a view to making the longitudinal study on which this dissertation is based successful, I took into account two research studies I carried out previously (Barreiro & San Isidro (2009) and Calvo & San Isidro (2012)) and, together with the teachers involved in the project (see chapter 6), decided to create training pedagogical modules covering the main areas related to CLIL theory, design and implementation. The above-mentioned studies concluded that pedagogy-based teacher training is the *sine qua non* for successful CLIL. Integrated curriculum planning and design, task-based learning, project-based learning and integrated assessment were the key areas of our pedagogical modules.

Curriculum planning in Content and Language Integrated Learning (CLIL) is one of the most difficult things for a teacher who first enrolls on a bilingual programme. And this is mainly because of the lack of experience and expertise in curriculum planning on the part of the teachers and, most probably, because it is based on integrated design, which consists in setting up both linguistic and non-linguistic goals, contents and assessment criteria. This is something that has been continuously disregarded in official curricula, usually characterised by a territorial and compartmentalised design. In general terms, CLIL teachers are subject teachers who are not used to planning their programmes and lessons taking languages into consideration, let alone taking foreign or additional languages into account. Prior to understanding, analysing and practising the so-called integrated design, it is important for any educational professional to provide himself or herself with the necessary theoretical tools in order to be able to analyse and design a curriculum plan and its aligned lesson planning. In our CLIL project, the possibility of bringing language teachers (L1 teachers and additional language teachers) and CLIL teachers (Social Science teachers) together in a training-designing-implementing experience opened the doors to a myriad of new ways of approaching the teaching and learning of and through languages.

Curriculum planning can be considered as the basis for the teaching-learning process. The development of class programmes, learning and teaching materials and resources, lesson plans, assessment and even teacher training are all based on the concept of curriculum. Curriculum, curriculum planning and curriculum development seem to be a main concern to teachers, policy-makers and families as they have relevance and impact on the development of communities. According to De Coninck (2008), curriculum is now at the centre of daily life and it is considered to be the responsibility of society as a whole, since it presents both a strategic and a policy challenge. From a curricular perspective, educational systems are laying the foundations for the future, for future citizens, and that is where the main challenge is. It is essential for policy-makers to decide how to develop curricula in education. In terms of development, should policy-making aim at teaching subject areas with a view to preparing students for competing in the global world? Or should it target a personalised and customised curriculum that recognises students as active agents in their learning as well as develops their potential as a person? Ackerman (2003) said yes to both possibilities. It all depends on the orientation of the curriculum planning/development.

There exist many models for curriculum development (Sahlberg 2006). In general terms, curriculum development, as a process, is or should be mainly concerned with needs analysis, constant reviewing, devising/designing/planning, developing, implementing and assessing curriculum while making sure that the agents in this process have a high level of commitment to the curriculum. When educational policy is formulated, the challenge lies mainly in the curriculum orientations, i.e. in the form, content, aims and goals of the curriculum. These orientations have a deep impact on the roles of policy-makers, families, teachers and students as they relate to vision and practice, decision making, curriculum planning, development, implementation and assessment. According to Joseph (2011) these orientations or, in his own words, '*cultures*' of curriculum have, in turn, an impact on the curriculum development process itself. This vision-related consideration is the reason

why educational curricula have become politicised with often polarising political views regarding particular issues.

All in all, leaving the politicised vision aside and focusing on development, when I faced the start of our research study, I came across some key questions:

- How is curriculum developed?
- Who develops it?
- Are curriculum development processes undergoing any kind of change? How?

All these questions have another question as a starting point, 'What is curriculum?'. The research project described in this dissertation was about teachers designing together, integrating different learning skills and putting languages in relation. This was the reason for me making clear what curriculum planning is and what the participating teachers had to do prior to starting implementation. There seems to be no fixed definition of curriculum (Sahlberg 2011). The word curriculum is derived from the Latin verb *currere*, which means to run. According to Sahlberg, in Anglo-Saxon countries curriculum is what students should learn, embedded within a framework of goals, objectives, content and pedagogy/methodology. In countries such as Sweden (läroplan), Holland (leerplan) and Germany (Lehrplan), curriculum refers to a plan for learning (Taba 1962, who appears cited in Thijs & van den Akker 2009). In McKernan's words (2008: 12) curriculum is '*concerned with what is planned, implemented, taught, learned, evaluated and researched in schools and at all levels of education*'. This latter definition of curriculum is seen to be more as a process rather than just a product. Conversely, Johnson (1967: 130) defines curriculum as a '*structured series of intended learning outcomes*' that prescribes the results of instruction. Curriculum is viewed as an output/product of the development process. According to Pinar (2004), research in curriculum development has focused on improving the process of curriculum rather than on curriculum theory, which aims at understanding the educational significance of what students are learning.

Since there are manifold activities related to curriculum, distinctions among different levels of curriculum activities (needs analysis, policy, design and development, implementation, assessment) along with the level of curriculum development (Van den Akker 2007) provide an insight into curriculum products. The analysis in Table 1 shows that curriculum is both a process and a product, whose development can be viewed narrowly (developing a subject-specific curriculum framework) or broadly (as a continuous process of improvement that takes into account teacher training and assessment programmes).

Level	Description	Examples
<b>SUPRA</b>	<i>International</i>	* Common European Framework of Reference for Languages. * Examination programmes: PISA, PIRLS
<b>MACRO</b>	<i>National, regional</i>	* Intended core objectives * Attainment levels * Examination programmes ("pruebas oficiales externas", for instance, final de Bachillerato)
<b>MESO</b>	<i>School</i>	* School programme * Special education programmes * Bilingual/CLIL programme
<b>MICRO</b>	<i>Classroom, teacher</i>	* Class programme * Bilingual/CLIL class programme
<b>NANO</b>	<i>Student, individual</i>	* Individualised learning plan (attention to diversity)

Table 1. Levels and Curriculum Products (adapted from Thijs & van den Akker, 2009)

Table 1 shows the different curriculum development levels, which, from a top-down perspective, range from a supra-macro level –legal framework– to a micro-nano one –the classroom and the student–. In Spain, a similar top-down development process occurs. There is a General Act or Law on Education that is progressively developed into and adapted to schools, groups and individuals. The two latest Acts have been the General Act on Education (LOE) 2/2006 (May 3rd) and the General Act for Improving Educational Quality (LOMCE) 8/2013 (December 9th), now in force. Both basically maintain the same model as a previous educational act (LOGSE 1/1990): an educational system that is common to the whole of Spain, but arguably open and flexible enough to be adapted to the different realities the country comprises.

The general Act on Education now in force defines the following curriculum elements, which are common to every school educational project in every autonomous community:

- a) Goals or objectives: they refer to the students' attainment as a result of their planned learning experience.
- b) Competences: they are the skills necessary to apply the knowledge acquired.
- c) Contents: knowledge, abilities, skills and attitudes that contribute to the attainment of goals.
- d) Methodology: organised and planned strategies, procedures and courses of action used by the teachers for the teaching-learning process to take place.
- e) Learning standards and assessable learning results: they make assessment criteria more concrete, specifying and grading performance.
- f) Assessment criteria: they describe what the teachers should assess as well as what the students must attain, in both knowledge and competence terms.

The design of the official curriculum in Spain is carried out by both the State and the Autonomous Communities, which share responsibility, and it is developed by and adapted to the schools, the teachers and the students in the so-called curriculum development levels:

- ◆ First level: the legal framework (official curriculum).
- ◆ Second level: the school (school educational project).
- ◆ Third level: the classroom (classroom programme/planning).

Regarding curriculum development in CLIL, it only takes place at school and classroom level, since there is no official curriculum (first level). The responsibility for integrated design in CLIL is placed on the teachers enrolled in the programme. And this is the first difficulty they come across and we came across. The second level of curricular development takes place in the school by means of a general document (School Educational Project), which, according to the general act on education, will include values, educational goals, priorities and the adaptation of the official curriculum to the context and hallmarks of the school. The main purpose of schools designing their own curriculum is taking the contextual elements into consideration and guaranteeing that the schools have

pedagogical autonomy. Curriculum planning and development in CLIL schools takes place first in this second level, because it is here that schools can integrate different goals and contents so as to favour project-work as well as cross-curricular perspectives. And this is exactly what happens in CLIL, whose curricular design is based on integrating language and other curricular contents. For instance, if the school is meant to include Social Science in English —as it was the case in our project (see chapter 6)—, curriculum design will integrate goals and contents of English as a foreign or additional language as well as subject-related ones. Both kinds of contents are included in the official curriculum (first level). The difficulty lies in integrating them.

Using the School Educational Project as a starting point, the teachers have to design their own class programme or lesson planning consisting of a number of units of work planned for three terms. This is the so-called third level of curriculum development, in which everything designed is class or group specific. The class programme is designed for a concrete group of students and can also include individual attention for students with specific needs. Regarding CLIL schools as the one in our project, it is in this level that teachers have to design concrete programmes integrating language and content, in terms of goal formulation and design of activities, tasks or projects.

The two-year longitudinal study I carried out (as explained in chapter 6) primarily aimed to measure impact on language and content learning as well as on attitudes, but its goal was also to monitor the students' code-switching in integrated tasks. The programme was to be designed as thoroughly as possible so that, on the one hand, pedagogical practice could be based on knowledge of theoretical foundations and, on the other hand, the analysis of that practice could be valid. This is the reason why the methodology-related training of the teachers involved was necessary and took place before the CLIL programme started. Training had to do with both design and practice and it was based on three main aspects:

- ◆ *Curriculum design*: teachers learned how to integrate the additional language (English) in their curriculum planning through using the Four Cs Framework

(section 3.1.2. in this chapter). From section 3.2. to 3.6. the theoretical foundations on the whole procedure of curriculum integration teachers used is explained.

◆ *Lesson planning*: teachers designed their lesson planning through task-based learning and project-based learning, whose fundamentals are explained in sections 3.7. and 3.8.

◆ *Integrated assessment*: teachers had to develop new strategies and tools to be able to assess students considering the different dimensions of CLIL (see section 3.9.)

In this chapter I will give a detailed account of the pedagogical fundamentals on which the CLIL programme in this research study was based, making reference to the main problems we had to face and to some of the tasks and projects we developed.

### **3.1.1. CLIL Fundamentals**

In Spain, the same as all around Europe, CLIL is the cornerstone of a complete educational change towards plurilingual and intercultural competence development (San Isidro 2009a, 2010). The introduction of additional languages as vehicles for teaching non-linguistic curricular subjects has had a large effect on language policy design and on school language projects, bringing about radical changes in teaching and learning styles as well as in teacher training, and opening a new educational scenario with a myriad of new possibilities.

When trying to conceptualise CLIL as an approach or a model, one easily comes across a multifaceted vision dependent on different perspectives —languages, content, culture, context, cognition, technology, etc.— which makes it rather difficult to provide a straightforward definition. According to San Isidro (2009b: 36),

*CLIL opens new horizons for languages across the curriculum, working upon the different*



*key competencies and fusing different learning styles in a brand new space brought about by the digital era we are living in. This is why talking about CLIL at the moment is not only talking about connecting languages across the curriculum, but also about designing context-based and customised integrated curricula and classroom plans, about facing mixed-ability groups with different learning styles, dealing with interculturality, providing new answers to teacher training needs, working upon key competencies, integrating web 2.0 and 3.0, elaborating materials, school networking [...].*

However, analysing what the research literature says about the concept and its effects on language and content learning, the fact that it has become marmite is immediately obvious.

According to Marsh et al. (2005: 5), the term CLIL was adopted in 1994 as a generic ‘umbrella’ term to refer to

*diverse methodologies which lead to dual-focused education where attention is given both to topic and language of instruction. It is used to describe any educational situation in which an additional (second/foreign) language is used for the teaching and learning of subjects other than the language itself.*

From its very beginning CLIL has been referred to as a set of pedagogical practices that are changing educational parameters insofar as it involves a less compartmentalised view of the curriculum as well as a bigger focus on meaningful tasks through the use of additional languages. The truth is that CLIL gives the students the chance to use the language in a more authentic and meaningful context so that their attention is focused on the content while language becomes a means, an instrument to reach an end. According to Marsh et al. (2005), a learning context of this kind increases not only the student’s exposure to the additional language, but also develops the student’s cognitive abilities. As explained in section 2.3.4.1., in the course of the years, researchers have been arguing in favour and against the beneficial effects of CLIL for language and content learning. From the initial enthusiastic views on CLIL effects (Marsh 2002; Coyle 2007; Coyle et al. 2010;

Dalton-Puffer 2007; Dalton-Puffer & Smit 2007; Lasagabaster 2008; Barreiro & San Isidro 2009; San Isidro 2010; or Navés 2009), research has gone to the other extreme, questioning the validity of the previous research on the grounds of the lack of homogeneity along with the multifaceted problems in its implementation (Pérez Cañado 2012; Paran 2013; or Bruton 2015). According to Ludbrook (2008), as CLIL has been and still is gaining momentum throughout Europe, various debate-provoking and research-focused issues are emerging:

*Although families generally express satisfaction at CLIL experiences, some reservations come from the parents of young learners who fear that too much exposure to a second language may lead to neglect of the child's first language; other doubts concern whether learning a subject through another language might slow down or impair the learning of the main content. CLIL experts reassure that the natural use of a second language in the classroom, «learning by using the language», can only have a positive impact on a child's thinking processes (Marsh, 2000), and research on early immersion bilingual programmes has shown that not only do these problems generally not arise, but through a dual focus on language awareness and subject content learners actually acquire a greater understanding of their own language (Lambert 1990: 216). In addition, in relation to achievement in academic domains (mathematics, science and social studies), research has shown that in bilingual programmes students «generally achieve the same levels of competence as comparable students in (first language) programs» (Genesee, 2003 cited in Marsh, 2005: 77).*

All in all, CLIL is gradually becoming mainstream and, although there exist different labels for content-based teaching as well as very diverse contexts and different ways of implementation, commonalities have made the term CLIL become commonplace for this kind of provision. According to Dalton-Puffer and Smit (2007: 8),

*(...) the factual educational realities covered by the label can differ considerably from situation to situation (...). Despite this variation, a good deal of commonalities can be detected on the level of rationales that are given for the implementation of CLIL.*

Among those commonalities, according to Do Coyle (2007), the CLIL methodological model combines elements of:

- ✦ Content: progression in knowledge, skills and understanding related to specific elements of an educational curriculum.
- ✦ Communication: use of the additional language to learn while learning to use the language.
- ✦ Cognition: development of learning skills related to concept-building (abstract and concrete), understanding and language.
- ✦ Culture: exposure to different cultural perspectives and interpretations.

In the model proposed by Coyle (analysed in section 3.1.2.), thought, decision-making and knowledge go hand in hand through the progressive fusion of thought and language skills. CLIL is based on the concept of scaffolding (see section 3.1.4.) as well as on the progressive introduction of the linguistic elements. Language is embedded from a threefold perspective: language of learning (related to the content), language for learning (functional language used for work in a specific area or subject) and language through learning (the one the students build up out of their L1-transferred skills and their participation in tasks and projects).

As I will detail in the next sections, when designing a curriculum plan teachers have to integrate content (through cognitive categories) and language (the three kinds of language and the four skills).

### **3.1.2. The four Cs**

Although CLIL has been the target for a lot of research, there remains a lot to do in terms of resources and curriculum planning. As said above, this is something that has been continuously disregarded in official curricula, characterised by a territorial and compartmentalised design. In general terms, CLIL teachers are subject teachers who are not used to planning their programmes and lessons taking languages into consideration,

let alone taking foreign or additional languages into account. It is a really difficult task for teachers to become curriculum developers when there is a lack of official guidelines. This is exactly why previous teacher training was paramount to ensure the success of our project.

The 4Cs-Framework (Coyle 2007) lays useful methodological foundations for curriculum planning, for CLIL lessons design as well as for elaboration of materials because of its cross-curricular and interdisciplinary nature. It integrates four contextualised blocks, by means of which content and language become integrated within a context:

- ✦ **Content:** content is not only about acquiring knowledge and skills, but also about the learners creating their own knowledge and understanding as well as about their developing skills (personalised learning). In other words, it is concerned with how new knowledge, skills and understanding make progress through a cross-curricular model that puts different subjects and topics in relation. For instance, the learning experience of a game in which students have to go shopping to a supermarket and have to use money, solve addition and subtraction problems, or choose healthy food.
- ✦ **Communication:** in CLIL, language is related to the learning context and learning takes place through that language, thus reinterpreting and reconstructing the content and its related cognitive processes. This language needs to be transparent and accessible. Furthermore, interaction in the learning context is fundamental to learning. For example, students verbalise the steps that they have followed so as to cook a recipe.
- ✦ **Cognition:** Bloom's Taxonomy (Bloom 1956; Anderson & Krathwohl 2001) categorised thinking skills as a progression from Lower Order Thinking Skills (LOTS) to Higher Order Thinking Skills (HOTS). In CLIL, content learning is related to the different cognitive levels and strategies. CLIL curriculum planning and design are usually based on task-based and project-based work oriented towards creativity as the last stage of

the process. For instance, students analyse the impact of humankind on a particular habitat and create a model or diorama afterwards.

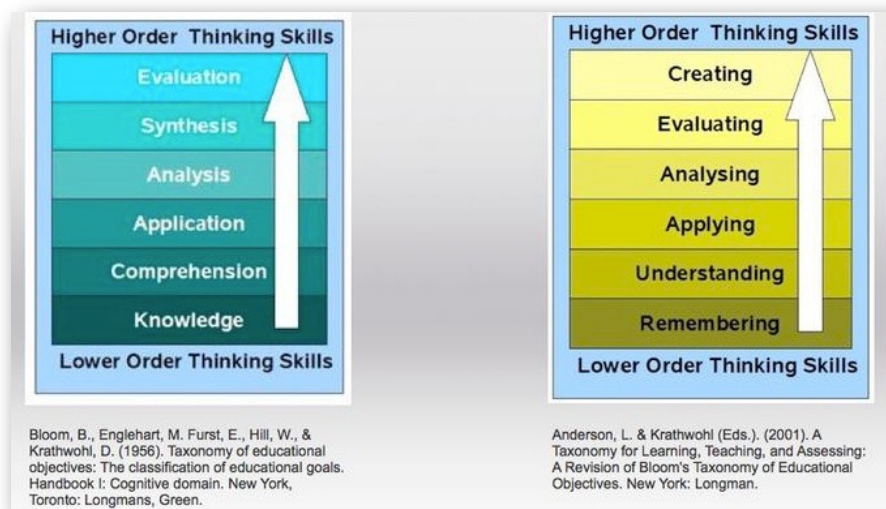


Figure 3. Bloom's Taxonomy. Source: <http://edorigami.wikispaces.com/>

✦ Culture: according to Coyle et al. (2010), this CLIL block is related to the question of the 'self' and 'other' awareness, identity, citizenship and progression towards intercultural understanding. CLIL is a good tool to develop notions of intercultural citizenship and global understanding. For instance, students from schools in different countries (Erasmus Plus project) research and make a video of the different food in both countries. In the course of time, the C for Culture has been revisited and reinterpreted in different ways (see section 3.3.) due to its multifaceted conception related to connectivity and global citizenship. Two dimensions could be added to this block, directly connected to the cultural component:

- ✦ Community: learning becomes collaborative through the creation of learning communities. The digital component becomes a key aspect.
- ✦ Connection: through CLIL, schools make use of collaboration networks with schools from other countries. CLIL develops through web 2.0 and 3.0 possibilities.

### 3.1.3. Curriculum Integration

What exactly is integrated curriculum and what is its relationship to CLIL? In its simplest conception, it is concerned with making cross-curricular connections which will make an impact on curriculum design as well as on lesson planning. In CLIL the connections take place—in its most basic form— between content and language. In this section, the main goal is providing an overview on curriculum integration, which will make it easier to understand CLIL curriculum design in our research study.

There exist three main categories of curriculum integration (Drake & Burns 2004): *multidisciplinary*, *interdisciplinary*, and *transdisciplinary*. The three categories offer a starting point for understanding different approaches to integration. *Multidisciplinary* approaches focus primarily on the subjects or disciplines. A topic or theme is dealt with from different areas. Teachers who use this approach set objectives or standards from their own subjects around a theme or topic. There are a myriad of multidisciplinary models, but there is one that is well-known because it has been a part of different national curricula, the *intradisciplinary* model, which refers to teachers who integrate the subdisciplines or subjects that are intrinsically related within a subject area, such as the integration of Geography and History in an intradisciplinary Social Studies programme (which is exactly the one we based our project on). Integrated Science embeds Physics and Chemistry. Through this integration, teachers expect students to understand the connections between the different subdisciplines and their relationship to the real world.

As regards *interdisciplinary integration*, teachers organise the curriculum around common learnings across subjects or disciplines. They put together the common learnings embedded in the disciplines to emphasise interdisciplinary skills and concepts. The subjects are identifiable, but they assume less importance than in the multidisciplinary approach.

With regard to the *transdisciplinary approach to integration*, teachers organise the curriculum around student questions and concerns. Students develop life skills as they

apply interdisciplinary and disciplinary skills in a real-life context. Two routes lead to transdisciplinary integration: project-based learning and negotiating the curriculum.

Content and Language Integrated Learning could be said to be half-way through between interdisciplinary and transdisciplinary integration. When teachers plan a CLIL curriculum or a CLIL lesson, they integrate or embed goals and contents from a subject into another. In other words, they organise language goals across the curriculum. But, at the same time, in CLIL design creativity and the making of connections are instrumental, whereas project and task-based work (see sections 3.7. and 3.8.) is advisable as a means for teachers to design their lessons as well as for the students to learn in a meaningful way. The relationship between CLIL design and task and project-based learning is inextricably connected to autonomous learning and collaborative and cooperative work. Teachers must provide students with the necessary language and content related support for the students to develop language competence and content learning: the so-called scaffolding.

### **3.1.4. Scaffolding**

The term dates back to 1976 (Wood et al. 1976) when Bruner posited his theory of learning related to social constructivist theory, influenced by the work of Russian psychologist Lev Vygotsky (1962). As a metaphor taken from construction lexicon, instructional scaffolds are temporary support structures teachers use to assist students in accomplishing new tasks and concepts they could not achieve on their own. Once students are able to master or complete the task, the scaffolding is gradually removed and there is a shift in the responsibility of learning from the teacher to the student.

One of the advantages of scaffolded instruction is that it not only provides a supportive learning environment, but also caters to mixed-ability groups and fosters autonomous learning. When teachers make use of scaffolding in the classroom, they become more of a mentor and facilitator of knowledge rather than the monitoring content expert. This teaching style leads students to take a more active role in their own learning. Students

share the responsibility of teaching and learning through scaffolds that require them to move beyond their current skill and knowledge levels.

Why is scaffolding important in CLIL? The reason is obvious: more strategies are needed to support understanding of both language and content. One of the biggest challenges of learning a content area through an additional language is how to make sure pupils have sufficient language resources to match the complexity of the concepts they are learning about. That is why careful scaffolding is essential. Students must be given short bits of comprehensible input supported by visuals such as pictures, charts and diagrams displayed around the classroom; digital tools and apps help as well to make CLIL design inclusive. According to Meyer (2010: 15),

*the quantity and intensity of scaffolding can be reduced as students' language skills advance. Scaffolding serves several purposes:*

- 1. It reduces the cognitive and linguistic load of the content/input (= input scaffolding) which means that scaffolding helps students understand the content and language of any given material.*
- 2. It enables students to accomplish a given task through appropriate, supportive structuring.*
- 3. Scaffolding also supports language production (= pushed output) by providing phrases, subject-specific vocabulary and collocations needed to complete assignments. It helps students to verbalize their thoughts appropriate to the subject matter. In other words, scaffolding done right will boost students' cognitive academic language proficiency (CALP).*

Scaffolding has to be taken into account in CLIL classroom planning, since goal formulation, setting of content, task planning and choice of materials are related to it.



## 3.2. C for Cognition and Content

In the previous section I focused on the general concepts about curriculum and curriculum planning, the key components of any educational plan, the principles and types of curriculum integration and the fundamentals of CLIL that teachers taking part in the project needed before starting hands-on work. Conceptualisation and familiarisation with general terms make it easier for teachers to face the challenge of content and language integrated design or planning.

Prior to learning how to plan CLIL curricula, the teachers involved in the project needed to focus on reflection about what teaching and learning have become in the present-day world so that they could understand more clearly the type of project they were about to enrol in. Present-day students use technology in their daily lives for the sake of expressing themselves, playing, networking and sharing different kinds of content by means of multimedia and multitasking platforms –social media–. Students, in general, are said to be exposed to a myriad of contents and to different languages that are just one click away. The way they learn is globalised, integrated, cognitively demanding and multitasking, as are the platforms they use. CLIL was born in this era and it has been evolving at the same time as technology for years. This is the reason for technology to be included in our planning (see section 3.3.), as CLIL is closely connected to the new learning scenarios brought on by our present-day world and the digital era, which bring about a synergy of multiple learning skills. Nonetheless, CLIL is not a new methodology, but a fusion of different ways of learning, in which:

- ✦ teachers and students say goodbye to monolingualism in schools;
- ✦ teachers and students say goodbye to watertight compartments thanks to curriculum integration;
- ✦ language is not the focus anymore, but a means or a vehicle;
- ✦ multilingualism is not elite-related; CLIL is for every student in every school.

From a pedagogical perspective, according to San Isidro (2016), CLIL curriculum planning and implementation must be interpreted as a journey, a journey to H.O.T.S. —pun intended on the *Journey to Oz*—, a journey towards creativity, in which students learn new content while developing different learning skills (the same as the *Scarecrow* looked for a brain, students develop cognitive skills, higher order ones, H.O.T.S.). A journey in which technology has a legitimate place in the classroom and is used in a meaningful way, i.e. in relation to student's lives, likes and feelings (does “*our Tinman looking for a heart*” ring a bell?). A journey in which students, as *Dorothy* did, play a leading role bringing their language and culture to a different world, CLIL (*Oz*), in which they will use a different language and a different perspective to learn content. A journey that is a challenge for teachers, who, exactly in the same way as the *Cowardly Lion*, need to be brave enough to become curriculum developers and put on new shoes (*Dorothy's red ruby slippers*) to be able to walk along new *yellow brick* paths, the paths of CLIL design.

Puns aside, the point is that, if teachers are due to make a journey, they need luggage, they need to pack a lot of things: concepts, aspects, theories and experiences. The first thing they have to take into account is the four Cs Framework (seen in section 3.1.2.), because it is the basis for planning and design. Each of the Cs is to be used as a starting point: cognition, content, communication and culture. As to cognition and content, teachers use Bloom's Taxonomy (see section 3.2.1.). Regarding language learning, CLIL teachers make use of the threefold perspective of language (Coyle et al. 2010) —explained in section 3.4.— as well as they work upon the progression from a Basic Interpersonal Communication System —BICS— into a Cognitive-academic Language Competence —CALP— (Cummins 1984), i.e. language evolves into a more specialised and academic one in CLIL, because it adjusts to the subject matter.

Regarding curriculum planning and design in CLIL, teachers use a multilingual approach, in line with the Common European Framework of Reference for Languages, which means that languages are put in relation so as to foster the development of a plurilingual competence. As far as design is concerned, the CLIL model is based on interdisciplinary

and transdisciplinary approaches, as seen in section 3.1.3. The elements or components in a CLIL curriculum plan are the same as the ones in a regular curriculum. It is recommendable for teachers to become familiar with the arrangement of goals, contents, criteria and standards in the official curriculum, as this will be the final structure of any course or lesson plan, but objectives, contents, standards and assessment criteria must integrate language and subject-related elements.

Furthermore, CLIL is tandem work in which a subject teacher and a language specialist work together, the latter being a coordinator mentoring the former in integrating language through content and cognition, i.e. in adapting or adjusting language to content and cognition. Which are the steps to achieve a good coordination, i.e. what does the language specialist have to do? According to San Isidro (2009b):

- A) As to curriculum planning: include CLIL in the School Language Project, identify competences and goals; help decide contents (units, modules, projects, topics, etc.) and materials; identify language aspects and the needs for the CLIL subject.
  
- B) Regarding the programme in a concrete course: analyse students' needs; help select topics; identify key competences and procedures to work on them; identify cross-curricular links; help identify objectives and contents; identify key words and grammatical structures and lexicon; look for suitable texts and materials; adapt language to the students' needs.

The language specialist's primary function is help the CLIL teacher to plan his/her curriculum. The first thing a CLIL teacher has to do is understand and analyse Bloom's Taxonomy (see the next section) so as to start designing through the first block: C for Cognition and Content.

### 3.2.1. Bloom's Taxonomy

Bloom's Taxonomy was developed in 1956 by psychologist Benjamin Bloom and several colleagues (Bloom et al. 1956) as a method of classifying educational goals for student performance evaluation. It has been revised over the years (Anderson & Krathwohl 2001) and is still widely used in education. Originally, the taxonomy was due to focus on three major domains of learning: cognitive, affective, and psychomotor. The cognitive domain, which is the one teachers focus on for CLIL curriculum planning, covered the recall or recognition of knowledge and the development of intellectual abilities and skills; the affective domain covered changes in interest, attitudes, and values, and the development of appreciations and adequate adjustment; and the psychomotor domain encompassed the manipulative or motor-skill area. Despite the creators' intent to address all three domains, Bloom's Taxonomy applies only to acquiring knowledge in the cognitive domain, which involves intellectual skill development. The original Taxonomy contained six cognitive categories: knowledge, comprehension, application, analysis, synthesis, and evaluation. In 2001, one of Bloom's students, Lorin Anderson together with Krathwohl and other colleagues (Anderson & Krathwohl 2001), revised the original taxonomy. In the new version of Bloom's Taxonomy, which is the one people usually refer to when talking about Bloom's Taxonomy, the names of the major cognitive process categories were changed to verbs so as to indicate action because thinking involves active engagements. Furthermore, instead of listing knowledge as a part of the taxonomy, the category is divided into different types of knowledge, content or subject matter: factual, conceptual, procedural, and metacognitive. Here lies the two-dimensional relationship between cognition and content which is the basis for goals, standards and criteria formulation when starting to plan CLIL curricula (C for Cognition and Content). This taxonomy of content also moves the evaluation stage down a level and the highest element becomes creating.

Bloom's Taxonomy can be used across levels and content areas. By using Bloom's Taxonomy in the classroom, teachers can assess students on multiple learning outcomes that are aligned to national-level or school-level standards and objectives. Within each level of the taxonomy, there are various tasks that move students through the cognitive

process. In order for teachers to plan curricula and develop lesson plans that integrate Bloom's Taxonomy, they should write their lessons in the language that focuses on each level. Bloom's Taxonomy provides an important framework for teachers to use in order to focus on higher order thinking. By providing a hierarchy of levels, this taxonomy can assist teachers in designing curriculum, lesson plans, performance tasks and providing feedback on student work.

In the following section I will explain how to start designing using the C for taxonomy-based Cognition and Content. This was the starting point for the teachers taking part in the project.

### **3.2.2. C for Cognition and Content: interacting with Bloom's Taxonomy**

In this section I will deal with formulation of goals integrating cognition and content — Coyle's C for Cognition and Content—, first part of CLIL curriculum design. In the previous section I referred to the two-dimensional quality of educational goals in the revised version of Bloom's Taxonomy. This two-dimensional quality refers to the two parts a goal comprises, referring to both cognition and knowledge (content or subject matter). According to Bloom's Taxonomy, from a cognitive point of view, in any learning process, students need first to remember and understand content to later apply their knowledge. Only then will they be able to analyse and evaluate it so as to finally be able to create. This cognitive progression has to be taken into consideration for the sake of planning and designing. In the taxonomy, there is a cognitive progression from the lower order thinking skills (L.O.T.S.) to the higher order thinking skills (H.O.T.S.). Each cognitive category can be semantically related to verbs introducing educational goals or objectives signifying what students are expected to attain:

	TAXONOMY CATEGORIES	➔	VERBS INTRODUCING GOALS
L.O.T.S.	REMEMBER	➔	Recognise, remember...
	UNDERSTAND	➔	Interpret, exemplify, classify, summarise, infer, compare, explain...
	APPLY	➔	Execute, implement...
H.O.T.S.	ANALYSE	➔	Differentiate, organise, attribute...
	EVALUATE	➔	Check, criticise...
	CREATE	➔	Generate, plan, produce...

Figure 4. Semantic relationship between cognitive processes and goal-introducing verbs

In order to formulate goals/objectives (also standards and assessment criteria) teachers must take into account the cognitive introductory verb followed by the type of knowledge (content/subject matter) using the table from Anderson, Krathwohl *et al.* (2001). Let us take, for example, the *instructions for making a Spanish tortilla* as procedural knowledge. Teachers have to decide which category and which cognitive verb to use in order to set the goal, depending on the stage they are aiming the goal to be:

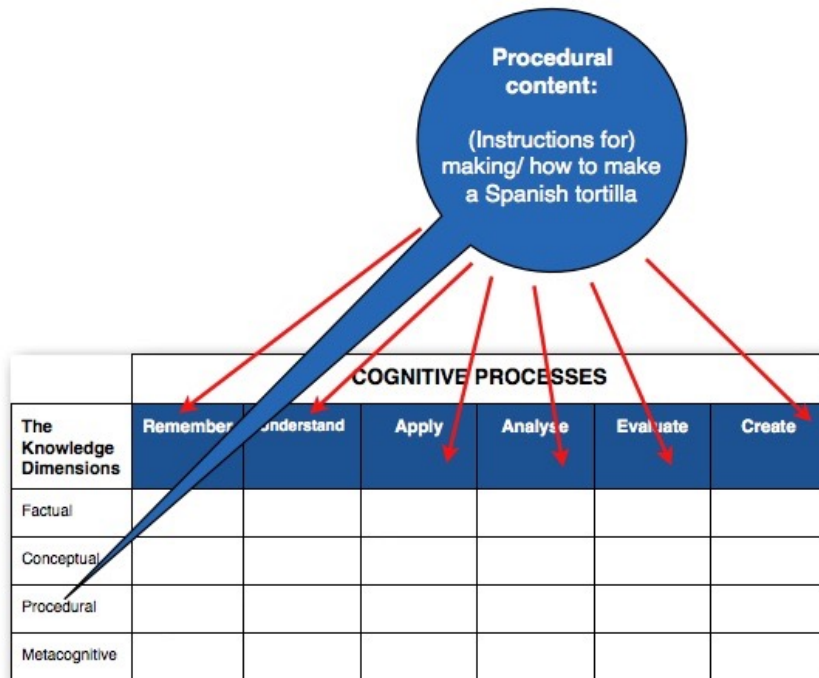


Figure 5. Cognitive processes and knowledge dimensions. Adapted from Anderson, Krathwohl et al. (2001)

Possible educational or instructional objectives would be:

- ✦ Recognise the ingredients necessary to make a Spanish tortilla.
- ✦ Explain how to make a Spanish tortilla.
- ✦ Analyse the process of making a Spanish tortilla.
- ✦ Make a Spanish tortilla.

The difference among them is the cognitive level: *make*, as an introductory verb, is much more cognitively demanding than *understand*. Grading educational goals/objectives is as simple as that. Teachers have to consider the cognitive level of the objective and its relationship to the content.

When training the participating teachers, they were given an example of taxonomic development so that they could become familiarised with subject-related educational objectives in which I included the six categories, cognitive verbs introducing goals and examples of instructional objectives related to different areas. This was the necessary step for them to start planning their curricula.

### **3.2.3. The Role of Content in CLIL**

In the previous section the focus was on the cognition-based setting of goals aiming at the acquisition of content. Content is the most important aspect in CLIL, since it takes place in a subject/area classroom, not in a language class. CLIL regenerates content learning by boosting cognitive development and flexibility in the learner by means of both a constructivist approach and the use of an additional language as a vehicle (Lyster 2007; Gajo 2007; Coyle et al. 2010; Dalton-Puffer 2007). Language is an instrument that serves the purpose of acquiring knowledge. The balance between content and language is sometimes an issue for some teachers, because they might not know how to cope with the assessment of language in the subject class.

In general terms, CLIL curriculum planning cannot be understood as one aiming at learning contents in a traditionally straightforward way. In CLIL, language, learning skills,

different cultural perspectives, technology, etc. are integrated into learning content. Content is learned in an intricate network of things, in a new scenario. CLIL is about new learning. By means of a CLIL curriculum, the learner is discovering new knowledge, developing new or existing skills and deepening understanding:

- ✦ Content planning involves choosing relevant contexts for learning which are appropriate to the learners' age, ability and interests and provide meaningful interaction with and through the language. Hence the importance of cognition and language when planning curricula.
- ✦ The CLIL approach has to take account of the statutory requirements of the national curriculum as well as provide a suitable platform for developing personalised learning.

This is the first step towards an integrated design. Planning content through cognition lays the foundation for the next steps: integration of both technology, culture and communication, which I will deal with in the next sections.

### **3.3. C for Culture, Community and Citizenship**

So far, regarding CLIL planning, the focus has been on how to formulate goals integrating cognition and content, the two first Cs in Coyle's four Cs framework: content (subject matter), communication (language), cognition (thinking skills) and culture. In our research study, teachers learned first about cognition and content to be able to integrate the other dimensions. In this section, I will deal with how to introduce the cultural component and its relationship to curriculum planning, a rather complex one insofar as it involves manifold aspects. The concept of culture in education and language learning has undergone a lot of changes (Kramsh 1998, 2009). In the course of the last 15 years, policy-makers and stakeholders in general have changed their consideration of C for culture in CLIL due to the ever-changing perspectives in our gradually more digitalised and globalised present-day world. In fact, the term has been interpreted in terms of culture, community,



citizenship, collaboration or connection on the grounds of its relation to technology and to how this has changed cultural perspectives (Mehisto, Marsh & Frigols 2008).

I will first focus on the concept of culture and its relationship to general education and CLIL. The definition of the term culture has been traditionally associated to a set of social, educational, religious and professional behaviours, as well as to practices and values that individuals learn and stick to while participating in (or out of) groups with which they usually interact. The link between the concept and behaviours, values or practices can easily be found in a dictionary, such as Merriam-Webster:

*a: the integrated pattern of human knowledge, belief, and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations;*

*b: the customary beliefs, social forms, and material traits of a racial, religious, or social group; also: the characteristic features of everyday existence (as diversions or a way of life) shared by people in a place [...]*

*c: the set of shared attitudes, values, goals, and practices that characterizes an institution or organization a corporate culture focused on the bottom line;*

*d: the set of values, conventions, or social practices associated with a particular field, activity, or societal [...]*

Education-wise, culture is inherently integrated into every theme or topic, going beyond or transcending the 'national' or even the 'ethnolinguistic' to incorporate other spheres of interaction (professional, personal, public, etc.). As seen in section 3.1.2., culture in CLIL is about awareness of one's self and of the other; it is concerned with identity, citizenship and progression towards plurilingual understanding and international competence. The presence of culture in official curricula has been mostly present in those related to languages (with specific blocks of contents, e.g. former socio-cultural aspects have given way to intercultural awareness) and in the key competences (the cultural competence), related to every area or subject in all educational levels.

In order to deal with culture for the sake of education and curriculum planning, it is necessary to make a clear distinction among the following concepts (Brotto 2008; Trujillo 2002, 2003), which are often confused, misunderstood and used wrongly:

- a) Multicultural: coexistence of different cultures.
- b) Pluricultural: a person becomes pluricultural when they gain access to more than one culture.
- c) Intercultural situation: two or more people from different cultures interact.
- d) Intercultural competence: ability to deal with one's own cultural background in interaction with others (from different cultural backgrounds).

It is intercultural competence that teachers should foster in learners. According to the Common European Framework of Reference for Languages (Council of Europe 2001a), over time, an individual's experience with different cultures expands, since he or she does not keep knowledge about these cultures in strictly separated compartments. Instead, the individual builds up intercultural competences to which all knowledge and experience of those cultures interrelate and interact. Hence intercultural competence is the capacity to function effectively and appropriately as an individual (and/or group), within the context of cultural behaviours, practices and values distinct from one's own.

When dealing with culture in CLIL, some contents seem to offer more opportunities to explore culture than others. For instance, it is probably easier to address culture in a History class than in a Mathematics class. However, culture in CLIL is not only about food, festivals and holidays. CLIL curriculum planning and implementation must prepare learners to participate effectively in the multilingual and multicultural globalised knowledge society we are living in. Teachers must prepare them for multiple spheres of cultural interaction: their own specific culture, other specific cultures as well as intercultural interaction. And, ideally, students should be prepared for this through multiple languages. Let us think, for instance, about designing an international project with a twin school abroad, in which students must collaborate and interact so as to work on a common topic related to any

area. Is this the cultural component in CLIL design? Yes, CLIL is about looking at the content of lessons and of the wider school curriculum from the point of view of connecting them to the world. And this can be achieved by developing projects in which schools connect to each other, but also by bringing the experience of students in the outside world into the classroom. This is the reason why the cultural component conceptualisation has evolved into something else: the concept of pluricultural citizenship and global understanding, the sense of community—in the traditional sense or in relation to the digital term *learning communities*— or the need for collaboration and connection. The C I am dealing with here is really the C for connecting learning to the world as well as the C for connecting personal actions to global processes. When formulating goals, contents, criteria and standards related to this C:

- 1) Teachers should develop curriculum plans that:
  - ✦ celebrate diversity and cultural enrichment;
  - ✦ connect to the world;
  - ✦ encourage collaborative opportunities in terms of twin schools or international projects through the use of technology (knowledge-sharing, learning communities, etc.);
  - ✦ and present opportunities for collective discussion.
- 2) Teachers should create an environment of welcome, care, inclusion and support.
- 3) Teachers should value the existence of multiple views, voices, beliefs, interests and experiences.
- 4) Teachers should establish relationships with students and the whole educational community.

General goals referring to intercultural understanding could be:

- ✦ Recognise culture and develop respect.

- ✦ Reflect on intercultural experiences and take responsibility.
- ✦ Interact and empathise with others.

Obviously, they are rather general but could easily be developed into more specific objectives related to any area and integrated into any cognitive-based and content-related objectives. As said above, intercultural awareness and competence is directly connected to collaboration, to interaction, to connection to the world and, ultimately, to technology. Teachers should not deal with culture without paying attention to the digital component in education, because this component has led us to reinterpret the learning scenarios, to go beyond the classroom physical space, to interact globally and to understand the world under the light of different perspectives.

### 3.3.1. Bloom Revisited

At present, in terms of contents, competences, skills, standards or criteria, learners need much more than they used to in the 20<sup>th</sup> century. According to Crocket, Jukes and Churches (2011: 17),

*how we learn reading, writing and mathematics has changed. In the age of multimedia, hypertext, blogs, and wikis, reading is no longer just a passive, linear activity that deals only with text, with reading literature, manuals, workbooks, computer screens, or technical instructions. At the same time, writing has also changed and is no longer just about being able to communicate effectively with pen, paper and text. Writing has moved beyond just creating traditional reports, filling out forms, or making written instructions. Math is about more than simply memorizing and applying formulae, definitions and algorithms. Today, it is essential that all of our students have a wide range of skills beyond those that were needed in the 20<sup>th</sup> century, a range that includes the skills needed to function within a rapidly changing society.*

Crocket, Jukes and Churches distinguished five skill categories: obsolete, traditional, traditional literacy skills, traditional skills with increased or differentiated emphasis and skills unique to the 21<sup>st</sup> century. Skills needed today have to do with literacy —not in the traditional sense, but literacy understood as a multiplicity of elements—, cognition and

content. They must be taken into account in order to design and implement a curriculum. The authors above classified these skills into: problem-solving, creativity, analytic thinking, collaboration, communication and ethics/action/accountability. In these skills, although in a much more diversified and extended way, cognition, communication, content and culture, can be found, i.e. the elements integrating CLIL. In CLIL, teachers intend their students to attain a certain degree of fluency through problem solving, creativity and analytical thinking, using project and task based approaches based on collaboration and intercultural interaction and responsibility. These must be the long-term goals, the goals learners need to achieve by the end of their educational career in order to become global digital citizens. These goals must be present in our curriculum plan and are intimately connected to the multiple-literacies process skills, which frame the long-term goals mentioned above. Crocket, Jukes and Churches (2011) defined and classified the 21<sup>st</sup>-century fluencies that learners will need so as to be competent and capable: literacy, according to the authors, goes beyond why education needs to change and focuses on how to change by identifying the 21<sup>st</sup>-century learning environment and detailing the process for developing scenarios, curricula and unit plans through these essential fluencies: information, solution, creativity, collaboration and media.

Taking all this into account and looking back at the taxonomies seen in the previous sections, one could say that, although they are perfect as a starting point for curriculum design and as the basis for integrating cognition in our planning, there is something in them that seems to be missing, possibly because they were written before the digital tsunami arrived. That is the reason why Bloom's Taxonomy (1956) –already revised by Anderson et al. in 2001– has been undergoing constant revisiting, reinterpretation and revising.

Andrew Churches updated Bloom's Revised Taxonomy in the so-called Bloom's Digital Taxonomy (2009) in his very well-known wikispace, <http://edorigami.wikispaces.com/>

[Bloom's+Digital+Taxonomy](#). According to him, the Original taxonomy and the revised taxonomy by Anderson and Krathwohl (2001)

*are both focused within the cognitive domain. As a classroom practitioner, these are useful but do not address the activities undertaken in the classroom. This Digital Taxonomy is not restricted to the cognitive domain rather it contains cognitive elements as well as methods and tooling. These are the elements that as a practitioner I would use in my classroom practice. Like the previous taxonomies, its is the quality of the action or process that defines the cognitive level, rather than the action or process alone.*

Churches attempts to explain the new behaviours and actions brought about by technology advances. Bloom's Revised Taxonomy by Anderson and Krathwohl (2001) describes many traditional classroom practices, behaviours and actions, but

*does not include the new processes and actions associated with Web 2.0 technologies, infowhelm (the exponential growth in information), increasing ubiquitous personal technologies or cloud computing.*

(Crocket, Jukes and Churches, 2011: 37)

Bloom's Digital Taxonomy is concerned with using technologies to facilitate learning. Rubric-standardised criteria or standards are measured by competence of use and by the quality of the process or product. Churches' Taxonomy goes beyond previous interpretations of Bloom's Taxonomy because it takes into account the present-day world, i.e. the digital component in learning. Besides cognition and technology-related cognition, the Digital Taxonomy includes language literacy, the sphere of communication — communication spectrum in the concept map below— related to the digital component. Let us have a look a the concept map of this Digital Taxonomy:

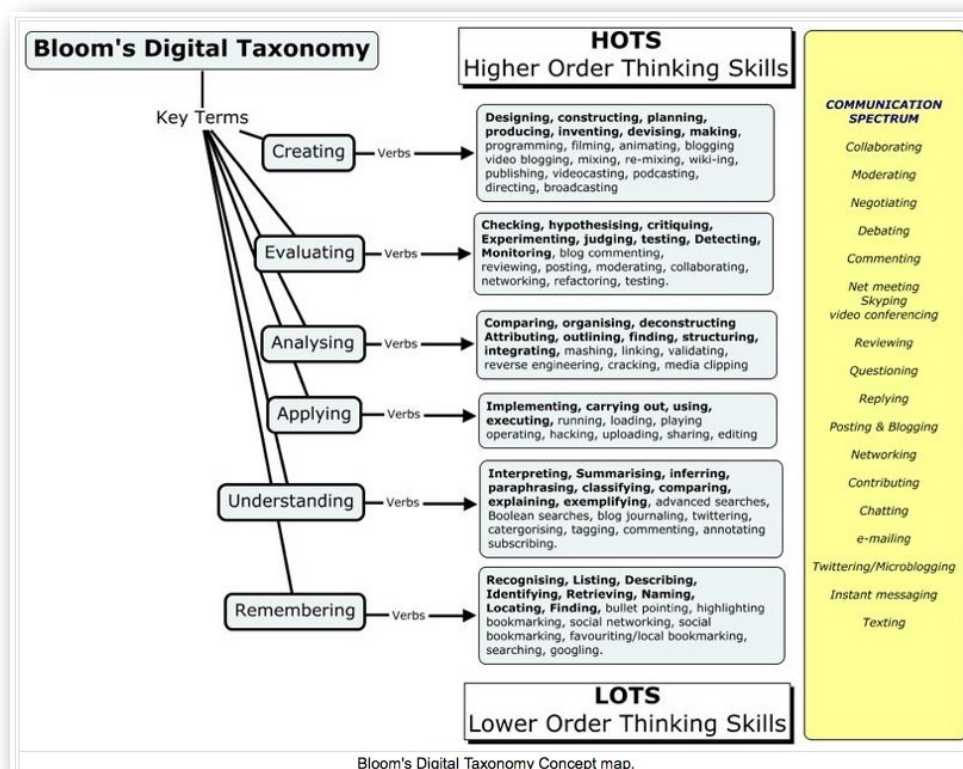


Figure 6. Bloom's Digital Taxonomy. Retrieved from <http://edorigami.wikispaces.com/>

The concept map above is made up of three different parts:

- 1) The first one contains the key terms, Bloom's six cognitive categories.
- 2) The second part comprises exemplifying verbs, ranging from L.O.T.S. to H.O.T.S., related to every category. The ones in bold type are cognitive verbs related to the traditional taxonomy: recognising, implementing, comparing, designing, etc. The ones in normal type are the ones more specifically related to technology: bookmarking, hacking, video-blogging, podcasting, etc.
- 3) The third part shows the communication spectrum, i.e verbs related to digital communication —although some of them can be interpreted in the traditional way —: posting, blogging, texting, e-mailing, etc.

In the next section I will use Bloom's Digital Taxonomy to explain how to integrate the third C in a CLIL curriculum planning. Besides Churches there have been a lot of attempts to

adapt taxonomies to the present-day world. One of the best known is Kathy Schrock and her Bloom's Revised Taxonomy, which can be found online: <http://www.schrockguide.net/bloomin-apps.html>. In 2012, she gathered a good number of apps in her Bloomin' Apps projects and classified them in terms of Bloom's cognitive categories, including suggestions for iPad, Google, Android, and Web 2.0 applications to support each of the levels of the Taxonomy.

### 3.3.2. ICT in CLIL Curriculum Planning

The next step/training module was to show the participating teachers how to integrate technology in their curriculum plan. In the previous sections, I disambiguated the C for culture in the four Cs framework and developed its meaning into a more complex concept, including aspects such as collaboration, connection and technology —ICT, Information and Communication Technologies—, due to their relationship of these aspects to intercultural interaction. I also dealt with how Bloom's Taxonomy has been revisited, reinterpreted and revised in the last years (Churches, in 2009, or Schrok, in 2012).

As seen in the previous section, Churches' concept map was divided in three main columns, representing the taxonomy categories, a lot of exemplifying verbs and the technology-related communication spectrum. It can easily be used as a starting point for integrated (and/or digitally-oriented) design. Let us consider, for instance, a hypothetical general curriculum goal (appearing in a hypothetical official curriculum) —it must be remembered that goals, contents, standards, assessment criteria, etc. in an official curriculum are laid down by law and, then, they have to be developed and adapted by schools and teachers to their contexts and the different classrooms and groups—:

*Integrate visual information (e.g. charts, graphs, photographs, videos or maps) with other information in print and digital texts.*

Table 2. Goal about visual information



Let us now consider the following learning experience (adapted from Crocket, Jukes and Churches 2011): in a lesson integrating Languages, Mathematics, Science and Social Science in an interdisciplinary way, the teacher wants the learners to create a poster that displays information about the car of their dreams. In addition to pictures and basic information about the car, the poster must include a graph, a table and a road trip plan relating fuel efficiency statistics to other factors such as distance travelled and fuel costs. After that, the students will present and share their products. Obviously, in order for the students to be able to accomplish that task, they must do pre-tasks facilitating the whole process. These pre-tasks must be related to identification of elements, research, analysis, etc.

But let us focus on how to set the primary objective. From the point of view of cognition (Churches' first column), the objective should be placed in the sphere of H.O.T.S. (create), since the learners are going to produce, design, make, etc.

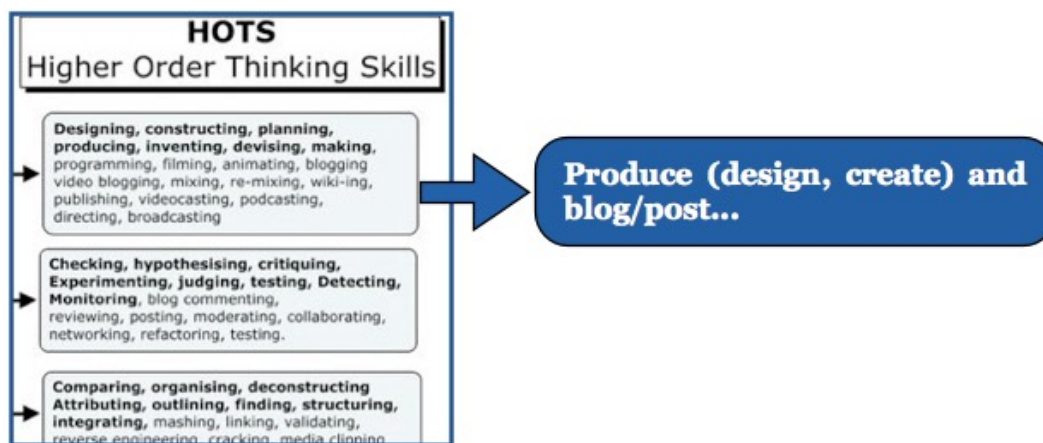


Figure 7. Selection of a H.O.T.S. goal

The second step is choose an appropriate introductory verb (from the second column): create, produce, design, make, etc. Or, if they are due to design and share the results digitally, teachers could combine that verb with a tech-related one: videoblog, animate, upload, etc.

Then, teachers should add the second dimension (content/subject matter). In this case, the content will be conceptual (car) and procedural (the things to include, the procedure to follow, as stated in the learning experience above). A possible formulation would be:

*Create/design/produce a poster about a car, including a graph, table and a road trip plan relating fuel efficiency statistics to other factors, such as distance travelled and fuel costs.*

Table 3. Goal about creating a poster

What about technology in the objective? Teachers could integrate digital introductory verbs in the same goal (e.g. design and upload), but integration is a bit more complex than that. The way curriculum planning works is relating goals in a consistent way. Considering what students are expected to do (final goal above), teachers should formulate objectives related to the tools and instruments they will need in the process to attain that final goal. According to Crockett, Jukes and Churches (2011), the objectives could be high tech (highly digital), low tech (moderately digital) or no tech (not digital at all). The choice will depend on the degree of technology teachers want the learners to use. Thus, in the students' use of tools for graphs or tables, objectives could be:

- ◆ High tech: Use block-poster software to transfer high resolution graphics and pictures to a wall-sized image.
- ◆ Low tech: Use graphics and photo-editing software to produce a large poster.
- ◆ No tech: Draw graphs and cut and paste images on poster board.

In the three of them, these are the components: cognition (all of them belong to the category APPLY, since they are process-related and students apply what they already know), content and technology (in the high and low tech ones).

As said above, in order to accomplish the final task, there are other pre-tasks the students should do. Since every learning experience in the process must be related to an educational objective, teachers could set some possible aims related to the students' previous work:

- ◆ Familiarise with imaging software for creating posters (L.O.T.S.).
- ◆ Do background research on different types of cars and measurements of fuel economy (L.O.T.S.).
- ◆ Analyse the relationship between fuel economy and the long-term cost of the car (H.O.T.S.).
- ◆ Collect and analyse fuel economy statistics for their car (H.O.T.S.).
- ◆ Etc.

As regards Churches' tech communication spectrum, the second part of the final task was presenting and sharing products. A traditional speaking-related goal would be:

*Orally present posters, mentioning all the elements and explaining the graph, the table and the road trip plan as well as relating fuel efficiency statistics to other factors such as distance travelled and fuel costs.*

Table 4. Goal about an oral presentation

Obviously, it is a no tech objective. It belongs to the sphere of language objectives, which will be dealt with in section 3.4. How can teachers set this objective as a tech one?. There are two possibilities –low tech or high tech–:

- a) Low tech: Present a poster using a Powerpoint (Keynote, Impress, Prezi, etc.) presentation.
- b) High tech: Video-blog a presentation to share it with a twin school.

The second one is the perfect example of educational objective integrating technology-related intercultural competence. Regarding CLIL curriculum planning, so far, I have dealt with how to integrate three of the for Cs. The only C that remains to be integrated is C for communication. Going back to the project itself, this is the way the teachers taking part in this research study learned about curriculum planning and integration: step by step, one C at a time before putting everything together.

## 3.4. C for Communication

### 3.4.1. The Role of Language in CLIL

CLIL refers to any dual-focused educational content in which an additional language is used as a medium in the teaching and learning of non-language content. Knowledge of the language becomes the means of learning content, i.e. language is integrated in the broad curriculum. CLIL is based on language acquisition rather than on language learning, since language is seen or is used in real-life situations in which students can acquire it. That is why fluency is more important than accuracy. Learners develop fluency through use, through communicating for a variety of purposes. On the other hand, the subject matter determines the language needed to learn and this brings about language academic specialisation —CALP (Cummins 1984)— (e.g. Science-related, Math-related or Art-related). CALP-related accuracy also develops through use, in an incidental way, out of what students need to complete tasks.

The first thing teachers should consider is the fact that CLIL is not about teaching languages, but about using an additional language to learn content. If a language learning scenario is compared to a CLIL one, the difference is obvious: while, in the former, the focus is on language itself, in the latter it is content that the learning process is focused on. In terms of language learning, CLIL is concerned with going from BICS —Basic Interpersonal Communication Skills— to CALP —Cognitive Academic Language Proficiency—. These terms are commonly used in discussion of bilingual education and come from the early work of Cummins (1984) in which he described BICS as the development of conversational fluency in the second language, whereas CALP as the use of language in academic situations. In other words, when students learn a second or an additional language, they often learn basic communication quickly, i.e. they learn BICS. This is what the language class is about: developing communication skills. This also happens in CLIL. As said above, BICS are used in tasks involving real-life situations. However, in a subject-based academic context, BICS becomes rather limited. The

language of cause and effect in Science, the language used for mathematical symbols or the language necessary for interpreting a population graph in Geography are not related to everyday situations. This kind of language is the so-called CALP. In CLIL, language, although BICS and classroom language are instrumental, becomes specialised in relation to the subject. This is the reason for both language teachers —i.e. mentors— and subject teachers to work together in design and implementation. And this was really the main challenge teachers had to face when starting our project.

In terms of curriculum planning, language teachers usually work with textbooks whose objectives are linguistic, whereas subject teachers set objectives that are mostly conceptual and procedural. Traditionally, subject teachers did not take into account language-related objectives, standards, criteria, etc., although these were inherently present in curriculum design. They focused on content. Nonetheless, all teachers must be considered as language teachers, since language has an impact on cognition and cannot exist without content. In CLIL, subject teachers become aware of language in their design as well as language teachers introduce subject-related content in their language lessons with a view to introducing content, anticipating it, or practising subject-related language. Taking this into account and according to Prasetianto (2014), CLIL could be classified into:

- ◆ Hard CLIL (content-led): subject teachers teaching through an additional language.
- ◆ Soft CLIL (language-led): language syllabus incorporating conceptual content.

Just as as there exists a taxonomy for learning-related cognition (Bloom's), which, as seen in previous sections, has been revisited and reinterpreted quite a few times, there equally have been several attempts to classify language-related cognition, in terms of reading comprehension. The best known is Barrett's Taxonomy (1968), which classifies reading comprehension operations in terms of questions, terms and classroom language. Barrett proposes four main categories: (a) literal recognition or recall, (b) inferential, (c) evaluation, and (d) appreciation. Language-related cognition ranges from understanding to critical and

creative thinking. This taxonomy is very useful for language teachers to design or plan language objectives or tasks matching Bloom's categories used for subject-related content. It is based on the way language teachers work upon language comprehension progression and it is a useful tool for CLIL teachers to integrate the language component in their subject. The planning, designing and using of the language will depend on the different tasks graded according to the different cognitive stages. For instance, if learners are asked to identify all the plants appearing in a science-related text, the language objective would belong to the category *literal* (beginning with 'read and identify', 'read and locate'...) and the questions/instructions to be used as classroom language would also be in this category: find, how many?, make a list, etc. This taxonomy category matches Bloom's categories *understand* or *remember*. In the following tables, the four categories above are shown, followed by examples (key words and sample questions). In relation to our project, they served the purpose of guiding language teachers to grade their introduction of language from a cognitive perspective so as to help the subject teachers and meet CLIL needs. Teachers should consider this in order to start formulating language-related goals by means of the Language Triptych (Coyle et al. 2010), which will be addressed in the next section. The tables have been adapted from Barrett (1968), each of them corresponding to one of the four levels mentioned above: literal comprehension (about understanding, recalling, etc.), inferential comprehension (about 'reading between the lines'), evaluation (critical thinking) and appreciation (creative interpretation). Each level comprises categories and key words along with some sample questions that may be used in a lesson:

<p><b>LITERAL COMPREHENSION</b> (Explicit statements) It involves locating the facts and recalling information.</p>	<p><b>KEY WORDS:</b> a) Find... b) Show me... c) Locate... d) Identify the place... e) List... f) Summarise...</p>
<p><b>Recognition or recall of:</b>  DETAILS (names of characters, settings, times...)  MAIN IDEAS (main idea of a paragraph or larger part)  SEQUENCE (order of incidents in a story)  COMPARISONS (likeness or differences among characters, times, place...)  CAUSE AND EFFECT RELATIONSHIPS (reasons for incidents, events or character actions)  CHARACTER TRAITS (find statements that tell what type of a character a person was)</p>	<p><b>SAMPLE QUESTIONS:</b>  1) Where is...? 2) Who did...? 3) How many...? 4) When did...? 5) What are...? 6) What happened when/before/after...? 7) Which are the steps for...? 8) How different are they...? 9) What caused...?</p>

Table 5. Literal comprehension (adapted from Barrett 1968)

<p><b>INFERRENTIAL COMPREHENSION</b> (Synthesis of: literal content, intuition, personal knowledge, imagination) It involves 'reading between the lines'.</p>	<p><b>KEY WORDS:</b> a) Pretend b) Suppose c) Consider d) Imagine (if) e) Figure out</p>
<p>INFERRING SUPPORTING DETAILS  INFERRING MAIN IDEA  INFERRING SEQUENCE  INFERRING COMPARISONS  INFERRING CAUSE AND EFFECT RELATIONSHIPS  INFERRING CHARACTER TRAITS  PREDICTING OUTCOMES  INFERRING ABOUT FIGURATIVE LANGUAGE</p>	<p><b>SAMPLE QUESTIONS:</b>  1) How do you think...? 2) Why do you think...? 3) Is...the same as...? 4) How is...unlike/like...? 5) What does the author mean by...? 6) What events led to...? 7) What makes you think that...? 8) What kind of person was...?</p>

Table 6. Inferential comprehension (adapted from Barrett 1968)

<p><b>EVALUATIVE COMPREHENSION</b> (Critical reading) It involves reaction to the ideas of others.</p>	<p><b>KEY WORDS:</b> a) Assess b) Value c) Judge d) Opinion e) Fair/unfair/right/wrong f) Appropriate</p>
<p>JUDGEMENTS OF REALITY OR FANTASY JUDGEMENTS OF FACTS OR OPINION JUDGEMENT OF ADEQUACY OR VALIDITY JUDGEMENT OF APPROPRIATENESS JUDGEMENT OF WORTH, DESIRABILITY OR ACCEPTABILITY</p>	<p><b>SAMPLE QUESTIONS:</b> 1) How would you evaluate...? 2) What were your reactions to this...? 3) Which of the two alternatives would you select? Why? 4) What did...do that you wouldn't...? 5) Do you agree with what is said about...? 6) What is your opinion of...? 7) Do you approve of...?</p>

Table 7. Evaluative comprehension (adapted from Barrett 1968)

<p><b>APPRECIATIVE COMPREHENSION</b> (Creative reading) It involves an emotional reaction or developing a product into a new form.</p>	<p><b>KEY WORDS:</b> a) Feel b) Hypothesise c) Design d) Invent e) Respond f) Act out g) Expres</p>
<p>EMOTIONAL RESPONSE TO THE CONTENT IDENTIFICATION WITH CHARACTERS AND INCIDENTS REACTION TO THE AUTHOR'S USE OF LANGUAGE REACTION TO THE AUTHOR'S USE OF IMAGERY ELABORATION, TRANSFORMATION</p>	<p><b>SAMPLE QUESTIONS:</b> 1) Can you make up a story...? 2) What would you do if you were a...? 3) How would you illustrate...? 4) How many different titles or endings can you create...? 5) How would you express those feelings in your own words...? 6) How would you change the beginning of the story? 7) Which character do you identify with? Why?</p>

Table 8. Appreciative comprehension (adapted from Barrett 1968)

Before going on to the next section related to CLIL planning and pedagogy, I will analyse the following objective or assessment criterion —assessment criteria refer to whether the learners have attained the previously set goals or objectives—, identify possible tasks



related to it and integrate language-related goals considering the taxonomy above. This is what I did with the group of teachers in the training module about curriculum planning.

Encourage learners to explore, develop and apply scientific ideas and concepts.

Table 9. General goal about Science

It is a Science-related instructional objective, belonging to the third level of curriculum development. In terms of cognition, it could be related to the category ANALYSE (H.O.T.S). It could possibly derive from a general goal belonging to a hypothetical official curriculum (first development level):

Explore the effects of water on a variety of materials.

Table 10. Specific goal about Science

Which possible tasks could teachers design for the students to attain the objective?

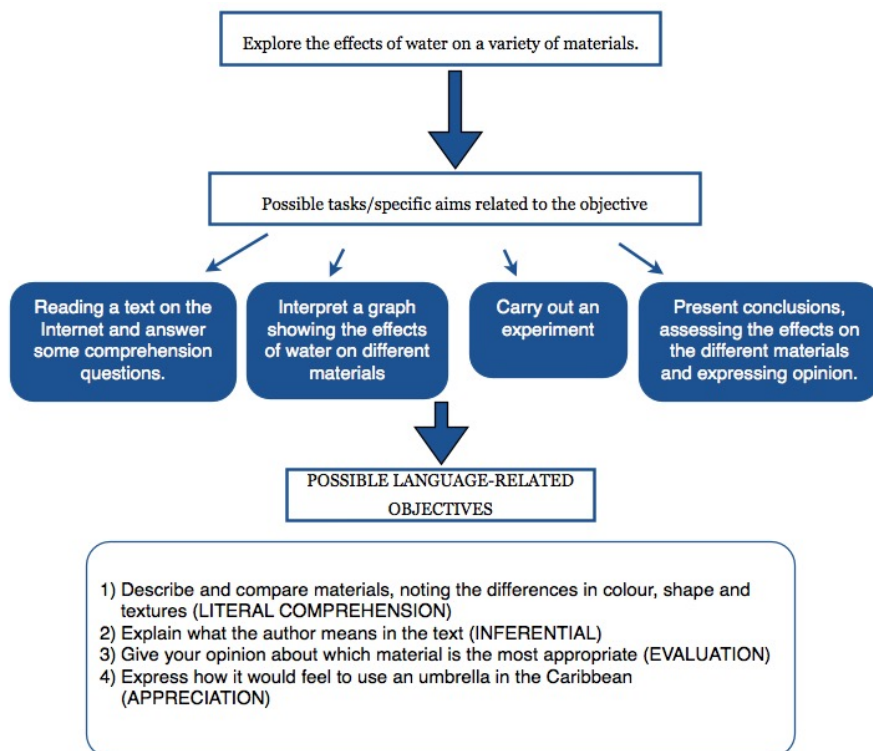


Figure 8. Goal and task development

The point is to relate objectives and tasks and think about the language needed to carry them out. This is just an example to clarify how integrated design works at a cognitive and language progression level. In the next section, I will deal with how to formulate language-related goals taking into account the three types of language existing in CLIL.

### **3.4.2. C for Communication: adding the language component**

As seen in section 3.1.2., in Coyle's four Cs framework (2007), each of the Cs is used as a starting point: cognition, content, communication and culture. As to cognition and content, teachers use Bloom's Taxonomy, as seen in section 3.2. Regarding the C for culture — section 3.3.—, it serves the purpose of introducing the cultural perspective through the development of intercultural competence: self-awareness and awareness of the other in relation to terms such as identity, citizenship, community, collaboration or connection to the world. But, what about languages —C for communication— in CLIL curriculum planning and implementation? In the previous section, I dealt with the role of language in CLIL through its different functions in the subject-related lesson —BICS and specialisation— as well as through Barrett's comprehension-based taxonomy, which sets a connection between cognitive development and language progression. C for Communication in the four Cs framework is a real challenge, because language in CLIL is not the aim but the medium. This is why language learning requires a re-conceptualisation in CLIL:

- ◆ language as comprehensible input;
- ◆ language as specialised (from BICS to CALP);
- ◆ and language as a medium.

Coyle et al. (2010) divided language in CLIL into: language of learning, language for learning and language through learning. This division can be the main instrument for teachers to set language-related goals, contents, standards or criteria in their curriculum planning. And this is in fact what we used in the curriculum planning of our project.

- 1) *Language of learning* is the language the students need to acquire concepts and basic abilities related to the subject. It is content-specific, i.e. language related to a specific topic: specialised language, vocabulary, subject-related expressions or grammar.
  
- 2) *Language for learning* is the language necessary for working in a CLIL environment. New subject-dependent language strategies for pair work, group work, subject-related dynamics, etc. It is related to classroom language. The language used for interaction in a language lesson is not the same as the one used in a Science lab or in a Music lesson.
  
- 3) *Language through learning*: when the students build, organise and formulate their own comprehension, language learning takes place in a deeper and more meaningful way. Students build language out of new learning strategies. Students are able to transfer what they know how to do in their first language to a new scenario.

Thus, teachers enrolled on a CLIL programme have three types of language to plan language integration in their design. How can they do it? In a process of curriculum integration, teachers need to plan carefully what they want their students to attain and act accordingly when designing tasks. After deciding the content, defining it and making decisions as to what students will learn (teaching objectives, learning outcomes, standards, criteria, etc.), they can link content with communication. The following is the procedure given to the teachers (adapted from Coyle et al. 2010):

- 1) What language will the learners need to work with the content? Which specialised vocabulary and phrases? Are the four skills (reading, listening, speaking and writing) integrated? Which grammatical aspects? (LANGUAGE OF LEARNING)
  
- 2) What kind of communication will they engage in? Which functional language will they use? What about the language of tasks and classroom activities? (LANGUAGE FOR LEARNING)

3) Will teachers scaffold learning for the students to work on their own and develop their knowledge of the language? How? Will the students have to use their previous language knowledge (in their first language or in the additional language)? (LANGUAGE THROUGH LEARNING)

Example given to the participating teachers:

Try and set language-related goals in a Science school project in which students are expected to show the relationship between paper consumption and deforestation as well as discover the negative consequences and discuss conservation and recycling methods.

Possible cognitive-based content objectives could be:

- ◆ Understand the relationship between paper consumption and deforestation (UNDERSTAND)
- ◆ Learn how to recycle and take measures to protect the environment. (APPLY)
- ◆ Appreciate the negative consequences on the environment (EVALUATE)
- ◆ Design a plan of action for saving paper to be carried out at their school. (CREATE)
- ◆ Make a poster about the issue. (CREATE)

These objectives should be related to cognitively-graded tasks, which will be designed taking into account language progression and a balance of the four skills. Possible language-related goals:

LANGUAGE OF LEARNING (topic-specific)

- ◆ Understand lexicon related to recycling and deforestation by means of reading or listening to texts related to the topic: paper, production, deforestation, recycling

environmental protection, etc. (READING/LISTENING- Barrett's Inferential Comprehension)

- ◆ Explain processes related to the topic: how paper is made, how the forest is cut down, how this harms the environment, etc. ( SPEAKING- Barrett's Inferential and Appreciation Comprehension)
- ◆ Write suggestions about recycling, protecting the environment, taking action in daily life, etc. (WRITING- Barrett's Appreciation/Creative Comprehension)

LANGUAGE FOR LEARNING (these objectives are more general and are related to class-dynamics and subject-related language classroom)

- ◆ Discuss ideas.
- ◆ Use language for discussion, explanation, argumentation.
- ◆ Defend an argument.

LANGUAGE THROUGH LEARNING (these objectives are related to scaffolded learning, to the students' building their knowledge of language on their own)

- ◆ Use multilingual wiki-glossaries to become familiar with the new lexicon.
- ◆ Watch and listen to a Youtube video in which people explain how paper is made.
- ◆ Present a plan, either in written form or orally, using digital tools.

All the language objectives formulated are related to the cognition and content based ones and refer to the language the students need to attain the learning outcomes. This is the essence of content and language integrated learning.

Going back to the training of the teachers taking part in the project, they gained a lot of expertise through continuous practice on these kinds of curriculum samples. This continuous practice made them ready to learn how to integrate all the elements —the four Cs— to set the project going.

## **3.5. How to Integrate the 4 Cs when Designing Curricula**

### **3.5.1. Designing Curricula**

As seen in section 3.1., the general Act on Education in Spain now in force, although any official curriculum from any country could be used, defines the following curriculum elements, which are common to every school educational project in every autonomous community:

- a) Goals or objectives: they refer to the students' attainment as a result of their planned learning experience.
- b) Competences: they are the skills necessary to apply the knowledge acquired.
- c) Contents: knowledge, abilities, skills and attitudes that contribute to the attainment of goals.
- d) Methodology: organised and planned strategies, procedures and courses of action used by the teachers for the teaching-learning process to take place.
- e) Learning standards and assessable learning results: they make assessment criteria more concrete, specifying and grading performance.
- f) Assessment criteria: they describe what the teachers should assess as well as what the students must attain, in both knowledge and competence terms.

Regarding previous curricula in Spain, the main difference lies in the fact that goals are now general —related to a whole educational stage— whereas in previous curricula they were related to every course. Instead, assessment criteria become a focus. Why? Because there used to be a coincidence in what the intended outcomes were (goals) and which the criteria to assess learning at the end of the learning process were. In other words, goals and assessment criteria were the same. At the moment, goals (in the official curriculum) are formulated in general terms while criteria and assessable standards are designed on a level with contents. Contents are set as nouns whereas assessment criteria (the same as goals) are formulated as infinitives. Assessable standards —more concrete rubric-based version of criteria— are formulated in the present, i.e. in terms of what the students can do.

The design of the official curriculum in Spain is carried out by both the State and the Autonomous Communities, which share responsibility, and it is developed by and adapted to the schools, the teachers and the students in the so-called curriculum development levels (*niveles de concreción curricular*): the legal framework (official curriculum), the school (school educational project) and the classroom (classroom programme/planning). Regarding curriculum development in CLIL, it only takes place at school and classroom level, since there is no official curriculum (first level). It is the school teachers that have to take the official curriculum as a starting point and integrate content and language. In the second development level —the school— the general planning or programme is designed through contextualising goals, standards, criteria, etc. to the school context. If the school is enrolled on a CLIL programme, an integrated approach should be included for it, i.e. general goals, contents, standards and criteria (related to the different areas) will refer to both the subject and the additional language. The source for doing so is the official curriculum —and its regional development— itself. It is a demanding task and involves both the subject teacher and the language specialist. The latter will guide the former so as to include the language-related goals, content, standards and criteria that best fit the subject matter. Let us see an example: imagine that the subject Science Applied to Professional Activity —4<sup>o</sup> ESO— is taught through English. The first thing the CLIL tandem

has to do is plan the whole subject for a school year, integrating both the subject matter and the language —English—. This would be the school-based second level of curriculum development, because it belongs to the general programme comprising all the subjects. However, it is also the first part of a concrete planning, giving way to the third level of development, the classroom. As said above, first, the subject teacher —CLIL teacher— will include and adapt subject-related contents and criteria and, then, the language specialist will add the language-related ones:

<b>4ESO - Science Applied to Professional Activity - Block 1 Basic Techniques</b>		
<b>Contents</b>	<b>Assessment Criteria</b>	<b>Assessable standards</b>
Lab: organisation, materials and procedures.  Use of ICTs for lab work.  Experimental techniques in physics, chemistry, biology and geology.  Applications of science in professional activity.	Use lab materials and products correctly.  Comply with safety and hygiene measures in the lab.  Apply techniques and tools that are appropriate to identify values/sizes.  Contrast hypotheses through experimentation, data collection and result analysis.	The student...  determines the type of tools necessary, according to the kind of experiment;  recognises and complies with safety rules and hygiene measures;  collects and relate data;  determines or identifies measurements of mass, volume or temperature using chemical or physical procedures;  etc.

Table 11. Science Applied to Professional Activity: contents, criteria and standards

As shown in the table, criteria (equivalent to instructional objectives or learning outcomes) are formulated taking cognition into account (Bloom's APPLY to EVALUATE) after the contents have been set. Assessable standards develop the criteria in a more specific way. What about the language component?



4ESO - ENGLISH		
Contents	Assessment Criteria	Assessable standards
Lexicon related to lab procedures and techniques.	Identify general meaning.	The student...
Identification of different text types.	Know and use text comprehension (either oral or written).	understands the main points in oral and written texts;
Formulation of hypotheses about content and context.	Recognise and use lexicon related to the subject matter.	understands what he/she is asked to do;
Description of qualities.	Use lexicon and structures related to the subject matter.	uses lexicon related to lab procedures and techniques;
Expression of logical relations: time, cause, cause-effect...	Produce oral or written texts with specific and varied communicative purposes: presenting, hypothesising, expressing reason...	uses lexicon and structures related to the expression of quantity;
Expression of quantity.		makes structured, previously rehearsed presentations;
		writes brief reports over experiments;
		etc.

Table 12. English: contents, criteria and standards

In the language component Barrett's (1968) progression from literal comprehension to appreciation can be inferred. The four skills are present as well as the language of, for and through learning. Although demanding, this part in CLIL curriculum planning is not complex. It is the general plan for a school year, taking the official curriculum as a starting point. Nonetheless, every plan for a school year for a particular classroom must comprise the design of a number of units. And this is the real challenge in CLIL: the planning of a number of units (usually from 9 to 15, depending on the area or subject). The teacher adapts all the elements into different subject-related topics. It is here that the 4Cs framework operates. In each unit in the plan or programme, the teacher has to formulate integrated objectives (instructional and concrete ones), contents, criteria and standards and then design tasks/projects in every unit so that the students can meet the aims set beforehand. Or the other way round, first think about a final task or project related to the main content, decide possible pre-tasks and formulate objectives, criteria, etc. This is CLIL curriculum planning. The question is how to design, how to plan. And that was the main question for the teachers in the project. In the previous sections, I analysed curriculum planning in terms of every C in the 4Cs framework. As to cognition and content, teachers

use Bloom's Taxonomy and the official curriculum, which states the contents to be learned by students. Regarding the C for culture, it serves the purpose of introducing the cultural perspective through the development of intercultural competence: self-awareness and awareness of the other in relation to terms such as identity, citizenship, community, collaboration or connection to the world. Regarding C for communication teachers formulate objectives, criteria, etc. through the use of the language triptych, considering BICS, CALP, classroom language, etc.

A possible procedure to follow in the use of the 4Cs framework could be (this was the template given to the teachers involved):

- 1) *Start with content. Select and define it. What will be taught? What will the students learn? What are the teaching aims/objectives? What are the learning outcomes?*
- 2) *The second step is explore the thinking skills you can develop according to decisions made above. What kind of questions must the teacher ask in order to trigger cognitive progression? Which tasks will he/she develop to encourage higher order thinking? Which thinking skills will the teacher concentrate on which are appropriate for the content?*
- 3) *What about communication? What language do students need to work with the content? Specialised vocabulary and phrases? What kind of talk will they engage in? Will the teacher need to check out key grammatical coverage of a particular tense or feature? What about the language of tasks and classroom activities? What about discussion and debate?*
- 4) *Integrate the cultural component as a circle which envelops the topic. It is about fostering the development of intercultural competence through the use of technology, collaboration and connection to the world. For instance, share final tasks and projects with other schools.*

### 3.5.2. Exemplification through Samples

In this section I will explain how the teachers got the hang of CLIL curriculum design through the use of samples. I will now analyse the procedure explained in section 3.5.1. through a specific example, the exact example given to the teachers: habitats (adapted from Coyle et al. 2010). Let us imagine that teachers have to plan and design a CLIL unit on habitats in English for secondary students. It belongs to the topics to develop in one school year for a particular group of students and will be one of the units of a general plan (*programación de aula*). When teachers plan their units, they have to design objectives, criteria, contents, standards and number of sessions or periods. The units are later developed or implemented in the classroom through tasks or projects in the different sessions.

The first step is related to content —C for content—. What shall teachers teach in relation to habitats —science-related topic—? Using the official curriculum and the school educational project as starting points, they must decide, prioritise or adapt subject-related content. Possible content related to habitats could be:

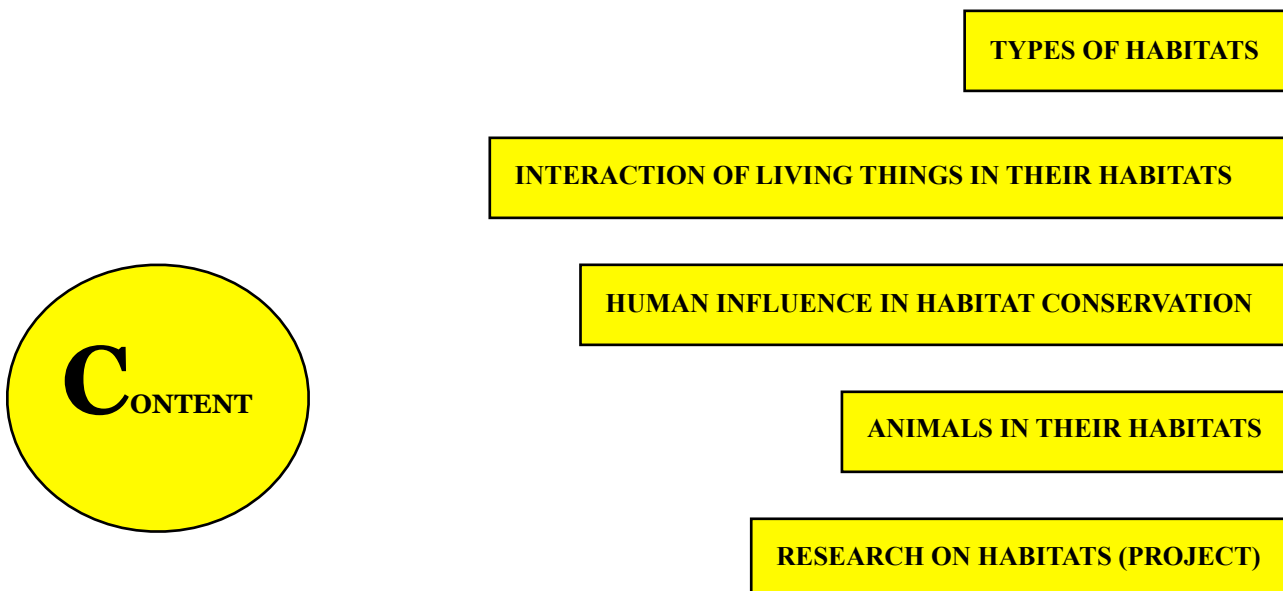


Figure 9. C for Content in the CLIL unit on habitats

The second step is explore the thinking skills –C for cognition– students need to develop. Out of the content above, teachers should formulate objectives/assessment criteria/outcomes using the taxonomy. In other words, they must set objectives from L.O.T.S. to H.O.T.S. in a two-dimensional way: cognition + content:

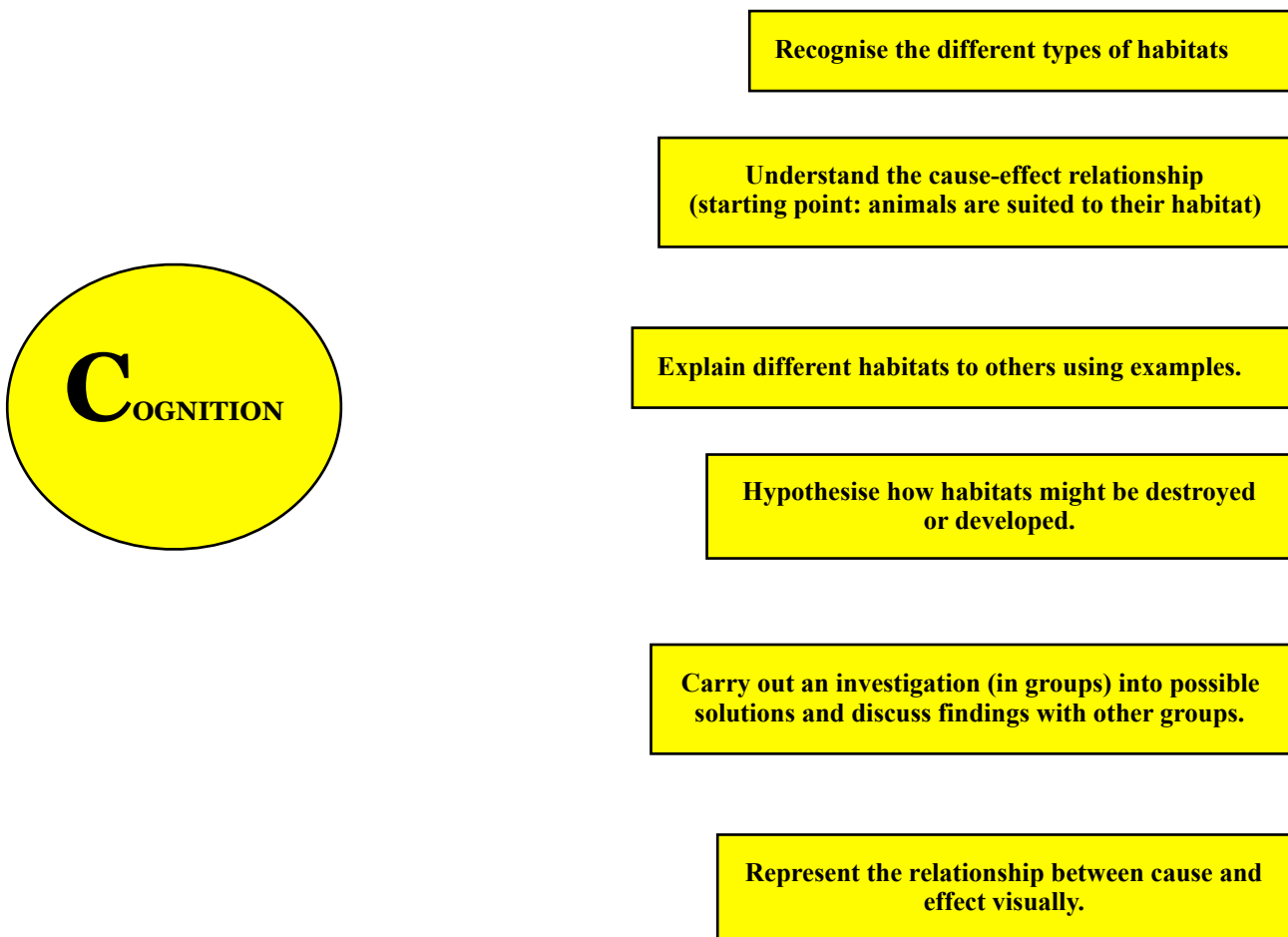
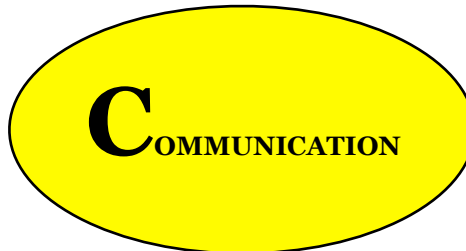


Figure 10. C for Cognition in the CLIL unit on habitats

The three first objectives refer to lower order thinking skills (recognise, understand and explain) whereas the ones introduced by hypothesise, carry out and represent belong to the sphere of higher order thinking skills. The focus is on the development of critical thinking and creativity.

What about languages –C for communication–? Teachers must make use of the language triptych (language of learning –i.e. language related to the topic or language necessary to deal with the topic–; language for learning –i.e.classroom language related

to the subject dynamics—; and language through learning —language built out of autonomous learning or transference from L1—) to formulate language-related objectives. These must be related, on the one hand, to the subject-specific content and, on the other hand, to comprehension and use of the language in both the oral and written medium, taking into account Barrett’s range from literal comprehension to appreciation.



Language of learning	Language for learning	Language through learning
<ul style="list-style-type: none"> <li>- Understand, know and use –orally and in the written medium–lexicon and expressions related to habitats. Examples: bacteria, camouflage, carnivore, classification, competition, cycle, ecology, food chain, photosynthesis, predator, population...</li> <li>- Use future and conditional tenses for the expression of cause/effect, solutions, suggestions...regarding the topic ‘habitats’.</li> <li>- Read and listen to texts related to habitats.</li> <li>- Interpret different types of texts related to the topic for the sake of research.</li> </ul>	<ul style="list-style-type: none"> <li>- Ask and answer using evidence.</li> <li>- Express agreement/disagreement.</li> <li>- Express hypotheses.</li> <li>- Write a simple research report.</li> </ul>	<ul style="list-style-type: none"> <li>- Use dictionaries (paper/electronic) to make a glossary.</li> <li>- Present –orally–projects using digital tools.</li> </ul>

Table 13. C for Communication in the CLIL unit on habitats



The last step is the cultural component. As seen in section 3.3., culture always goes hand in hand with language. The way the students learn a particular content implicitly depends on their cultural perspective, but, in CLIL, teachers must go beyond the

traditional cultural aspects. Developing intercultural awareness means putting different cultures in relation so as to see them all as valuable as well as avoid stereotyping. The best way to do this is collaborating and sharing projects, tasks, activities, experiences with twin schools through technology. The concept of schools connected to the world is the so-called culture-bound CLIL. What should teachers do when designing? Although technology should be present —when necessary— throughout the learning process, the culture-bound use of technology should be primarily used in the last creative product-oriented stages when learning becomes meaningful. For instance, in the objectives set above there are no tech ones (term used in section 3.3.), although some of them (the H.O.T.S. ones) can easily become tech:

- ◆ Visually represent the relationship between cause and effect through an online application (Gliffy or Mindmap) and post it on the class blog (or tweet it on the class Twitter account) so as to share it with a twin school.
- ◆ Debate possible hypotheses about how habitats might be destroyed or developed in an audio forum (VOXOPOP: voice-based e-Learning tool) with a twin school.
- ◆ Carry out an investigation into possible solutions, make a video and upload it onto the school YouTube account for later discussion with other schools.

Another procedure for CLIL curriculum design in the units is thinking first about a content-related final task or project and a primary objective. Then, think about the pre-tasks and language the students will need to be able to attain the final aim. These pre-tasks and language will be related to specific objectives, both language and subject related. In section 3.3., I used a learning experience adapted from Crocket, Jukes & Churches (2011), which will serve the purpose here of sampling a different procedure for planning: the learning experience consists in a lesson integrating Languages, Mathematics, Science and Social Studies in an interdisciplinary way, in which the teacher wants the learners to create a poster by using imaging software. The poster must display information about the

car of their dreams. In addition to pictures and basic information about the car, the poster must also include a graph, a table and a road trip plan relating fuel efficiency statistics to other factors such as distance travelled and fuel costs. After that, the students will present and share their products. Obviously, in order for the students to be able to accomplish that task, they must do pre-tasks facilitating the whole process. These pre-tasks must be related to identification of elements, research, analysis or assessment. The primary objective could be:

*Create/design/produce a poster—using imaging software— about a car, including a graph, table and a road trip plan relating fuel efficiency statistics to other factors, such as distance travelled and fuel costs. (H.O.T.S. create-tech)*

Table 14. Goal for poster task

As said above, in order to accomplish the final task, there are other pre-tasks the students should do. Since every learning experience in the process must be related to an educational objective, teachers could set some possible aims related to the students' previous work. All of them are related to the learning of content and to the knowledge of the digital tools necessary for accomplishing the final task. Progression from L.O.T.S. to H.O.T.S. takes place at different levels:

- Understand the concept ratio/rate (L.O.T.S.)
- Use ratio/rate reasoning to solve real-world and mathematical problems (L.O.T.S.)
- Use tables to compare ratios (L.O.T.S.)
- Solve unit rate problems including those involving unit pricing and constant speed (H.O.T.S.)
- .....
- Do background research on different types of cars and measurements of fuel economy (L.O.T.S.)
- Analyse the relationship between fuel economy and the long-term cost of the car (H.O.T.S.)
- Collect and analyse fuel economy statistics for their car (H.O.T.S.)
- .....
- Familiarise with imaging software for creating posters (L.O.T.S.)
- Use block-poster software to transfer high resolution graphics and pictures to a wall-sized image (L.O.T.S.)
- Integrate visual information (charts, graphs, photographs, videos, maps...) with other information in print and digital texts (H.O.T.S.)

Table 15. Pre-tasks for poster task

Regarding language, as a part of the final task the students will have to present and share their products. As a general language goal teachers could formulate:

*Write and orally present informative/explanatory texts to examine a topic and convey ideas, concepts and information through the selection, organisation and analysis of relevant content.*

Table 16. General language goal for poster task

The intention with this general goal, which is related to the presentation in the final task, is for the students to be able to orally present their posters in a coherent way, showing a logical distribution and organisation of ideas and information relevant to the content. Once the teachers know where they want the students to get to –in language terms– they should think about the instructional or specific objectives in each of the three components that the language triptych comprises: language of learning, language for learning and language through learning:

Language of learning	Language for learning	Language through learning
<ul style="list-style-type: none"> <li>- Understand, know and use –orally and in the written medium– lexicon and expressions related to the topic. Examples: fuel, measurements, ratio, rate, statistics...</li> <li>- Use comparatives for charts and graphs regarding the topic.</li> <li>- Use reason and result clauses for the expression of cause/effect.</li> <li>- Read and listen to texts related to the topic (for research).</li> <li>- Interpret different types of texts related to the topic for the sake of research.</li> </ul>	<ul style="list-style-type: none"> <li>- Introduce a topic, showing organisation of ideas, concepts and information.</li> <li>- Use language for defining, classifying and contrasting.</li> <li>- Answer questions using evidence.</li> <li>- Write a research report.</li> </ul>	<ul style="list-style-type: none"> <li>- Use dictionaries (paper/electronic) to make a glossary.</li> <li>- Present –orally–a poster using digital tools.</li> </ul>

Table 17. Specific language goals for poster task

In curriculum planning terms, this is what teachers should do in all the units integrating the plan for all the students. It is about the transition from the second to the third level of



curriculum development. And this is exactly what all teachers taking part in the research study had to do prior to implementation.

Regarding curriculum adaptation to students with specific educational needs, this is something related to rubric-based standards, which I will deal with in section 3.9. Every objective is related to an assessment criterion and each criterion is developed into different standards, which are equivalent to different levels of attainment. CLIL design is related to task-based and project-based learning, which makes it easy to use with mixed-ability groups.

## **3.6. Putting a Programme Together**

### **3.6.1. The CLIL Class Programme**

In general terms, curriculum development, as a process, is or should be mainly concerned with needs analysis, constant reviewing, devising/designing/planning, developing, implementing and assessing curriculum while making sure that the agents in this process have a high level of commitment to the curriculum.

When educational policy is formulated, the challenge lies mainly in the curriculum orientations, i.e. in the form, content, aims and goals of curriculum. These orientations have a deep impact on the roles of policy-makers, families, teachers and students as they relate to vision and practice, decision making, curriculum planning, development, implementation and assessment. Curriculum design is thus related to a myriad of activities. That is why distinctions among different levels of those activities (needs analysis, policy, design and development, implementation, assessment) as well as the level of curriculum development provide an insight into curriculum products.

Curriculum is both a process and a product, whose development can be viewed narrowly (developing a subject-specific curriculum framework) or broadly (as a continuous process of improvement that takes into account teacher training and assessment programmes).

Curriculum planning is thus concerned with developing general goals, contents, criteria and standards into specific design in terms of subjects, stages, school years, specific groups, etc. This curriculum design, which takes place in three different levels, is implemented in the classroom through specific activities, tasks, projects, etc. and, ultimately, evaluated within a multidimensional approach in which all the elements integrating the teaching-learning process take part: teachers, students, resources, materials, etc.

In section 3.1., the different curriculum development levels were analysed. From a top-down perspective, they range from a supra-macro level — the legal framework— to a micro-nano one —the classroom and the student—. In general terms, by using the School Educational Project as a starting point, every teacher has to design their own class programme or lesson planning (*programación de aula*, in Spanish) consisting of a number of units of work planned for three terms. This is the so-called *third level of curriculum development*, in which everything designed is class or group specific. The class programme is designed for a concrete group of students and can also include individual attention for students with specific needs. A hypothetical example of curriculum development could be:

**Sample Curriculum Objectives (first level - general)**

The Primary School Science Curriculum will enable students to:

- Acquire an understanding of science concepts and principles in an integrated manner and able to relate them with natural phenomena and everyday experiences.
- Apply science knowledge and skills creatively and intelligently in problem solving and decision making.
- Develop further the intrinsic values of science such as inquisitiveness, open-mindedness, intellectual honesty and perseverance.
- Develop scientific and manipulative skills through the discovery-inquiry approach.
- Develop skills in conducting scientific investigations and research.

**Sample Instructional Objectives for 4<sup>o</sup> primaria (second level - school)**

- A) Understand that breathing is a general characteristic of living things.
- A) Recognise different animals in your area.
- B) Know that light can be dispersed.
- B) Study weather conditions in your area.

**Sample Instructional Objectives (third level - the classroom - specific unit)**

- A1) Explain how breathing takes place in humans.
- A2) State the three methods of breathing in animals
- A3) Provide examples with animals in your area.
- B1) Understand that sunlight consists of seven colours.
- B2) Explain the formation of a rainbow.
- B3) Collect data about weather conditions in your area.
- B4) Create a presentation.

Table 18. Curriculum development sample

What happens in CLIL? It only takes place at school and classroom level, since there is no official curriculum (first level). In the sections devoted to integrated curriculum design above, I focused on learning how to integrate the different Cs in a curriculum planning: content, cognition, communication and culture. In section 3.5. I dealt with the procedure of putting them all together and, by means of a practical approach through the samples given to the participating teachers, analysed CLIL curriculum planning as a transition from the second level (general programme) to the third level of curriculum development (class programme). Both CLIL and language teachers have to design a general plan for a school year, taking the official curriculum as a starting point. The plan designed for a school year for a particular classroom must comprise the design of a number of units. And this is the real challenge in CLIL: the planning of a number of units (from 9 to 15, depending on the area or subject). It is here that the 4Cs framework operates. In each unit in the plan or programme, the teacher has to formulate integrated objectives (instructional and concrete

ones), contents, criteria and standards and then design tasks/projects in every unit so that the students can meet the aims set beforehand. Or the other way round, the teacher could first think about a final task or project related to the main content, then decide possible pre-tasks and, ultimately, formulate objectives, criteria, standards, etc. In other words, it is in this level that teachers have to design concrete programmes integrating language and content, in terms of goal formulation and design of activities, tasks or projects. The structure of a class programme is the same for all subjects. The parts every class programme or planning should include are:

- ◆ Justification
- ◆ Social and educational context
- ◆ Key competences
- ◆ Goals
- ◆ Assessment: characteristics, criteria and standards
- ◆ Attention to diversity
- ◆ Plans and projects
- ◆ Units of work for a particular class

In this section I will focus on analysing the third level of development, i.e. the planning of the units of work from the point of view of curriculum design by using templates or planners aligned with the CLIL module formal format. The procedure, templates and planners I used with the teachers taking part in this research study.

As seen above, a class programme/plan comprises a number of units that are required to have the same format. This is why it is recommendable to use templates or planners for designing. These templates should include all the elements necessary for making a CLIL unit comply with the principles of integrated design. In the next section I will analyse a template in terms of curriculum planning, but, first, I will focus on the most important aspects any CLIL unit should be endowed with in order to be effective.

Regarding a unit belonging to a class programme, there are some important elements a teacher should consider when analysing or using a template or planner for CLIL design, besides the title and the obvious identification of topic, timing, level, subjects or materials involved:

- 1) **Prior knowledge:** it is expected that students will have studied the additional language for a number of years before undertaking the unit of work. Teachers, when designing, should insert prior vocabulary or functions students should already know.
- 2) **The Common European Framework of Reference:** a CLIL unit of work should explicitly show the students' CEFR level —from A1 to C2— (Council of Europe 2001a).
- 3) **Subject-related objectives:** Anderson et al.'s *taxonomy table* (2001) —see section 3.2.— will be a useful framework for analysing a unit or course that is currently being taught or for planning a unit or course that will be taught in the future. In the first case, the analysis allows teachers to determine which types of objectives are emphasised and which ones are omitted. This may lead to satisfaction or recognition of the need to modify the course or unit. In the second case, the taxonomy table permits teachers to develop a unit or course that most closely reflects alignment of elements. Thus, the taxonomy table is seen as aiding the transition from curriculum to implementation/instruction. It helps sort out the complexities of the curriculum once it has been decided upon so that teaching is more likely to be successful and assessment is more likely to be appropriate and useful.
- 4) **Language-related objectives:** the curricular planning elements in the design of the unit must include language goals in terms of the three kinds of language seen in section 3.4. (of, for and through) and should include a balanced use of the four skills (listening, reading, speaking and writing).

**5) Contents:** although they must appear in the objectives, they must be formulated separately as nouns and *aligned* with objectives. They will be subject and language related. E.g.:

Objectives:

- Understand how commercials are designed to influence potential customers.
- Create a commercial about a common food product.

Contents:

- Commercials.
- Influence of commercials in potential customers.
- Healthy/nutritious food
- Etc.

**6) Assessment criteria/learning outcomes:** they refer to the results expected. These criteria must be aligned with the goals, i.e. objectives are what teachers expect students to attain and outcomes are concerned with checking whether the students have attained what they were expected to. In the Spanish curriculum in force, assessment criteria are developed into **rubric-based standards** (I will delve into this in section 3.9.), i.e. they are graded so as to reflect different standardised levels of attainment. In this way teachers can cater to different levels, to mixed-ability groups and to students with specific needs. The formative/ongoing and/or summative assessment must link to the learning outcome/objective. The outcome(s) must be specific and measurable and include multiple assessment strategies that are valid and appropriate for the content and cognitive level of the students. Assessments are used to find out what students already know and can do, provide data for teachers to drive future instruction, and provide feedback to students on what they have learned.

**7) Structure:** the structure of the unit is related to task-development. Although I will not deal here with how to design tasks in depth, it is important to consider the fact that they should be designed around several specific stages aligned with how goals and contents

have been previously planned and formulated. According to Cano (2013), there are four clear stages for task development and implementation: introduction, investigation, consolidation and creation. These stages are intimately connected to the cognitive progression in goals. The introduction stage is related to activities/tasks which help the students see what they know about the topic (watch a video, read a story, brainstorming, etc.). The investigation or research stage is related to tasks in which students have to manipulate, research and discover (matching, classifying, in-depth reading, etc.). In the consolidation stage, the students structure what they have learned/discovered by means of organising tasks (mapping, graphic organisers, etc.). In the creation stage, students use H.O.T.S. to analyse, evaluate or create as well as share what they have learned (make a presentation, record a video, make a poster, etc.).

**8) Scaffolding:** as seen in section 3.1.4., scaffolding is one of the main principles in CLIL, related to autonomous learning. It serves the purpose of facilitating learning to all students. In CLIL, more strategies are needed to support understanding of both language and content. One of the biggest challenges of learning a content area through an additional language is how to make sure pupils have sufficient language resources to match the complexity of the concepts they are learning about. That is why careful scaffolding is essential. Students must be given short bits of comprehensible input supported by multi-modal materials such as pictures, charts, diagrams, maps, podcasts, video-tutorials, etc..

**9) Alignment:** there must exist an utter alignment and coherence among objectives, contents, instructional activities/tasks and assessment.

### **3.6.2. Lesson Planning: the CLIL Module Format**

As seen in the previous section, curriculum design is a plan for an individual subject area that supplies the goals, contents, pacing, learning experiences, assessments, and resources, and it is developed into a number of individual unit plans and pacing guides, the so-called third level of curriculum development —i.e. the classroom programme—.

In this section I will analyse a formal format template from the point of view of CLIL curriculum design, taking into account the elements or aspects seen in the previous section. A unit of work refers to the transition from a curriculum map to materials, resources, tasks, projects and activities. It involves the development and alignment of the map into a series of lessons based on the identified subject-related key elements. Planning CLIL curriculum in the third level is usually the most time-consuming activity, not only because transforming general goals and contents into contextualised course and group specific lessons is hard work, but also because there are few ready-made materials which respond to the needs of context-specific units. Mostly often teachers, as curriculum developers, must design their own materials for their lessons. But this is something I will delve into in the next couple of sections —3.7. and 3.8.—.

I will now deconstruct and analyse a planned unit from the point of view of curriculum design in the third level of development:

a) First part: identification

CONTENT SUBJECT: Science
LEVEL: 3° ESO
UNIT: The Solar System
STUDENT CEFR-LEVEL: A2+

Table 19. Identification (Science unit)

The first part of a unit of work is about identification. The elements included here are content subject, level, title and CEFR-level, although teachers could add timing, number of sessions, materials needed, resources., etc. The more specific it is, the more helpful will be for other teachers to use.



## b) Second part: prior knowledge

<p>The subject matter in the unit has been studied by the students in previous years, so they are supposed to have a prior knowledge about it.</p> <p>In language terms, students should already be familiar with the following CALP lexicon: <i>path of the sun, clouds, shade, Moon phases, the rhythm of day and night, the seasons, orientation, cardinal points, maps, compass...</i></p> <p>Students should already be familiar with the following BICS functions: <i>language for defining, for describing and for comparing.</i></p>
--

Table 20. Prior knowledge in the Science unit

The second part indicates the starting point in language terms, considering what the students are supposed to know from previous years on the grounds of curriculum information.

## c) Third part: teaching objectives

SUBJECT-RELATED OBJECTIVES
<ol style="list-style-type: none"> <li>1. Review and identify the main stars in the universe.</li> <li>2. Know the solar system and the stars it comprises.</li> <li>3. Recognise the Moon as a satellite of the Earth and know its phases.</li> <li>4. Understand the movements of translation and rotation as well as their consequences.</li> <li>5. Describe the movements of translation and rotation.</li> <li>6. Relate the movements of translation and rotation to day/night and seasons.</li> <li>7. Research about solar system distances and dimensions.</li> <li>8. Solve problems about hypotheses on the movement of the planets, tidal movements, seasons and Moon phases.</li> <li>9. Hypothesise about the size of the universe.</li> <li>10. Review and practise data collection and data-representation through graphs.</li> <li>11. Collect data comparing the differences in day/night times with a twin school in Scotland.</li> <li>12. Organise data in tables.</li> <li>13. Represent data in a graph –using an online application– and share them online.</li> </ol>

Table 21. Subject-related goals in the Science unit

The formulation of subject-related goals shows the intended cognitive progression in the students' learning experience in this unit. Teachers can verify cognitive progression by placing the numbers of the objectives in the taxonomy table so as to classify goals in their two-dimensional perspective, regarding cognition and content (knowledge). In this way they will know if the intended objectives/outcomes cover the whole cognitive/knowledge spectrum.

		THE COGNITIVE PROCESS DIMENSION					
THE KNOWLEDGE DIMENSION	1. REMEMBER	2. UNDERSTAND	3. APPLY	4. ANALYSE	5. EVALUATE	6. CREATE	
A. Factual Knowledge	1						
B. Conceptual Knowledge	3	2, 3, 4, 5, 6	8	7, 8, 9	9	9	
C. Procedural knowledge			10, 11, 12	8		13	
D. Metacognitive knowledge			10				

Table 22. Cognition-knowledge in the Science unit

As shown in the table, the whole spectrum for both cognition and knowledge is covered. Some goals are placed in more than one cell because they can be related to different cognitive processes. The formulation of subject-related goals can be said to be helpful in terms of aiding the transition from curriculum to implementation, since it clearly guides the design of possible tasks and activities.

What about the cultural and digital components? Objective number 11 shows the project-oriented quality of the unit through collaboration and connection, adding the necessary cultural component which aims at fostering intercultural competence. Also related to this is objective number 13, a tech goal, introducing digital connectivity. The lesson plan could include objectives related to culture in a more specific way: *develop respect and tolerance towards different cultures; understand different ways of living; place value on and respect different opinions; etc.*

As regards language-related goals in the unit:

LANGUAGE-RELATED OBJECTIVES		
LANGUAGE OF LEARNING	LANGUAGE FOR LEARNING	LANGUAGE THROUGH LEARNING
1. Understand, know and use –orally and in the written medium– lexicon and expressions related to the solar system topic: sky, stars, planets, satellites, comets, asteroids, the Earth’s Orbit, translation and rotation, tidal movement, compass, the Moon... 2. Use the present simple to state facts and describe the processes related to the topic: the solar system. 3. Use relative clauses. 4. Read and listen to texts related to the contents in topic. 5. Interpret different types of texts from different sources related to the topic for the sake of research.	6. Use language for describing in the oral and the written medium. 7. Use language for defining in the oral and the written medium. 8. Use language for describing processes in the oral and the written medium. 9. Answer questions using evidence.	10. Use dictionaries (paper/ electronic) to make a glossary. 11. Write and classify information in tables and graphs. 12. Present –orally– data by using digitally-made graphs.

Table 23. Language-related goals in the Science unit

Teachers should bear in mind that this is a CLIL unit, not an English unit. Language goals are related to the learning of contents, to the progression from BICS to CALP and to the language triptych (Coyle et al. 2010). As included in the template, language goals have been divided into the three expected categories (language of learning, language for learning and language through learning), the four skills are present and there is a clear alignment in relation to the subject-related goals. Regarding comprehension (Barrett’s taxonomy), the students are expected to attain not only literal, but also inferential and creative understanding (and later use) of the language. Language objectives clearly reflect the language necessary for the learning of content.

d) Fourth part: contents

<p><i>The solar system. Components, size and distances.</i></p> <p><i>The Earth as a planet and its place in the universe.</i></p> <p><i>The Moon as a satellite of the Earth.</i></p> <p><i>Translation and rotation.</i></p> <p><i>Day/night and the seasons.</i></p> <p><i>Explanatory hypotheses about the movements of the planets and the Sun.</i></p> <p><i>Natural phenomena related to the movement of the Earth and the Moon.</i></p> <p><i>Techniques for observation of stars.</i></p> <p><i>Techniques for orientation.</i></p> <p><i>Data-collection techniques.</i></p> <p><i>Lexicon related to the solar system and the universe.</i></p> <p><i>The present simple.</i></p> <p><i>Relative clauses.</i></p> <p><i>General description, definition and process description.</i></p> <p><i>Tables and graphs.</i></p>
--

Table 24. Contents in the Science unit

After observing the table of contents above, the question is whether contents are aligned with the previous formulation of goals and the answer is yes. Every single content stated above is related to one or more of the objectives set in the previous parts, either subject or language related, or both. For instance, the content *Techniques for orientation* is related to content goals 4, 5, 6 and 8 and language goals 1, 2 and 8; the content *Translation and rotation* refers to content goals number 4, 5, 6 and 8 as well as to language goals number 1, 4, 5, 6, 7 and 8; or the content *Relative clauses* is clearly related to language goal number 3.

e) Fifth part: assessment criteria and standards

ASSESSMENT CRITERIA	POSSIBLE ASSESSABLE STANDARDS
<p>1. Understand and identify the solar system, the main stars in the universe and Moon as a satellite of the Earth.</p>	<p>The student:</p> <ul style="list-style-type: none"> <li>-understands and identifies all the elements;</li> <li>-understands and identifies some of the elements;</li> <li>...</li> </ul>

ASSESSMENT CRITERIA	POSSIBLE ASSESSABLE STANDARDS
2. Understand the movements of translation and rotation and relate them to day/night and the seasons.	The student: –understands the movements and relates them to day/night and the seasons; –understands the movements but does not link them to day/night and the seasons; ... ...
3. Solve problems about hypotheses on the movement of the planets, tidal movements...and hypothesise about the size of the universe.	The student: –solves simple problems about the movement of the planets, tidal movements...; – solves complex problems about the movement of the planets, tidal movements...; –solves problems and hypothesise about the size of the universe; ... ...
4. Collect, organise and represent data in tables and graphs.	The student: –collects data; –collects and organises data; –collects, organises and represents data in simple graphs; –collects, organises and represents data in elaborated graphs; ... ...
5. Understand, know and use –orally and in the written medium– lexicon and expressions related to the solar system topic: sky, stars, planets, satellites, comets, asteroids, the Earth's Orbit, translation and rotation, tidal movement, compass, the Moon...	The student: –understands and use –understands ... ...
6. Use language for defining, for describing in general and for describing processes.	The student: –defines, describes elements and describes processes; –defines and describes processes; –defines; ... ...
7. Complete information in tables and graphs and present data.	The student: –completes information in tables and graphs and present data; –completes information; –completes information partially; ... ...

Table 25. Assessment criteria and standards in the Science unit

As seen in previous sections, there must exist an utter correspondence between teaching objectives and assessment criteria. These ones serve the purpose of checking whether the intended goals have been attained. Criteria are stated in general terms in the same way as objectives and must be aligned with them. For example, assessment criterion number 1 corresponds to content goals 1, 2 and 3; assessment criterion number 5 shows an obvious correspondence with language goal number 1.

Regarding standards (an ambiguous term, since in some countries it is used in the same way as goal), according to the present-day Spanish curriculum, they consist in grading assessment criteria into more specific indicators or benchmarks. In the table above, some possible standards have been added to the criteria just to show how to grade them.

Although standards are included in the official curriculum, as seen in the previous section, it is not necessary to include them in the planning of specific units. It is recommendable to include them in a rubric in the unit implementation (see section 3.9.).

#### f) Sixth part: task and project development sessions

The last part in this section is about how to implement and develop it in the different sessions. Activities and tasks are planned and timed in alignment with each of the objectives and contents programmed beforehand.

The next two sections address task and project design in alignment with goal formulation.

## 3.7. Task-based Learning

### 3.7.1. Fundamentals

#### 3.7.1.1. Introduction

In the previous sections, I focused on the different levels of curriculum development, i.e. the development of the official curriculum into school and classroom based design. In section 3.6., the focus was on how to plan a unit of work in curriculum planning terms within the third level. This section deals with the transition from curriculum to implementation through the analysis of the task-based approach. In other words, I will focus on design of tasks and activities aligned with the previous planning of goals, contents, criteria and standards. As said in section 3.6., there must exist an utter alignment and coherence among objectives, contents, instructional activities/tasks and assessment. The alignment in the formulation of third level curriculum planning helps the transition from curriculum to implementation, since it guides the design of possible tasks and activities. Before delving into the task-based approach, I will analyse some examples given to the participating teachers during the training period. Teachers were supposed to analyse the alignment of the third level curriculum planning with tasks, activities and resources so as to demonstrate the importance of linking curriculum planning to learning experiences. Let us take, for instance, the following math-related instructional goal:

Using plane figures (square, rectangle, triangle, parallelogram, rhombus, and trapezoid), define them.
--

Table 26. Math instructional goal

In the objective, two cognition-related verbs can be found: use, belonging to the category APPLY, and define, usually belonging to the category UNDERSTAND, but here more related to CREATE, since the students have to generate definitions of concepts not studied before out of information they are already familiar with. Which learning

experiences could teachers include in the instruction or implementation process? The following could be an example:

*Students are given envelopes that contain the following paper shapes: square, rectangle, triangle, parallelogram, rhombus, and trapezoid. The names of each shape are written on the paper shape. Working in pairs, students must use their knowledge of points, lines, and angles to write a definition for each shape based on its properties. Each group then chooses one definition to read to the class; the class must guess the shape the group chose based on their own experiences with the shapes.*

Table 27. Task aligned with Math instructional goal

Is there alignment regarding the instructional goal? Yes, there is. The task-based learning experience develops the categories formulated in the instructional goal, in terms of cognition and content. In the first part of the activity, the students manipulate (APPLY) the information necessary. In the second part, they generate definitions out of prior knowledge (CREATE).

Let us now have a look at the following history-related objective:

*Use maps, globes, satellite images, photographs, or diagrams to analyse and explain how different cultures use maps and other visual images to reflect their own interests and ambitions.*

Table 28. History-related goal

This goal shows the cognitive categories APPLY (*use maps, globes, etc.*) and ANALYSE (*analyse and explain how*) as well as a number of multi-modal resources the students are intended to manipulate: maps, globes, satellites images, photographs or diagrams. Examples of tasks could be:



1. *Look at this current world map and compare with the world map below that is similar or the same as one that Columbus used to persuade Ferdinand and Isabella to sponsor his trip to Asia by sea.*
2. *What are the major similarities and differences between this map and the current world political map?*

Table 29. Tasks related to the History goal

The problem with the tasks above is the lack of alignment between the tasks proposed and the goal. The tasks lack the analysis component, second part of the goal. Conversely, the following task is alignment-oriented:

*Show the Columbus map to the students. Have students work together to describe how Columbus might have used the features of the map to structure his persuasive argument to reflect his own interests and ambitions, and why, given their interests and ambitions, Ferdinand and Isabella would have been persuaded by this argument.*

Table 30. Task aligned with the History goal

In this case, there is manipulation of the map and there is reflection and analysis, as stated in the instructional goal. Alignment takes place not only between goal and learning experience, but also between goal and resources used —the map in this case—.

This introduction on alignment between curriculum and instruction/implementation is instrumental —and was instrumental for the participating teachers— in understanding task-design as a process involving all the elements included in any planning, a process which must be endowed with a structure. What does a task-based approach mean and how can it apply to CLIL classes? The CEFR defines a task, cited by Tardieu and Dolitsky (2012: 8),

*as any purposeful action considered by an individual as necessary in order to achieve a given result in the context of a problem to be solved, an obligation to fulfil or an objective to*

*be achieved. This definition would cover a wide range of actions such as moving a wardrobe, writing a book, obtaining certain conditions in the negotiation of a contract, playing a game of cards, ordering a meal in a restaurant, translating a foreign language text or preparing a class newspaper through group work. (CEFR: 10)*

Ellis (2003: 9) defined a task in the following terms:

- A task is a **workplan**.
- A task involves a primary focus on **meaning**.
- A task involves **real-world processes of language use**.
- A task can involve any of the **four language skills**.
- A task engages **cognitive processes**.
- A task has a clearly defined **communicative outcome**.

Considering these definitions, it is easy to think that tasks are intimately connected to CLIL fundamentals (cognition, communication, focus on meaning, etc.). The task-based approach is the best instrument to translate curriculum into implementation, because it makes it possible to design activities aligned with a curriculum, endowed with scaffolded language and content as well as able to cater to mixed-ability groups.

A task in CLIL could be defined as an activity which engages students in understanding, manipulating, producing and interacting in an additional language while their attention is focused on meaning rather than on form. A task is generally preceded by pre-tasks or micro tasks (preparatory, facilitating or scaffolding tasks), focused on the input necessary to carry out the final task. The final task is usually a real product (an interview, a presentation, a video, a poster, a menu, a flyer, etc.). Tardieu and Dolitsky (2012: 8) used the following example:

*For instance, if the final task is a debate that is to take place in front of an audience, where the parents might also be invited, an intermediary task will consist in training the students to express their points of view through pair work activities, for instance. They may work on vocabulary specific to the subject,*

*along with correct pronunciation, in specially designed exercises or micro tasks. A micro task is generally focused on one aspect of the language to be used in the task.*

### 3.7.1.2. CLIL task-designing and mixed-ability groups

In the last example of the previous section, tasks were endowed with an experiential component. Task-design in CLIL is related to attention to diversity, due to its experiential quality, which is related to different levels of attainment in mixed-ability groups. Throughout this chapter, I have mentioned that CLIL is for all students, and is perfectly compatible with students with different levels or with specific needs. Curriculum planning is designed in general terms, but in a flexible manner, so as to cater to the different levels through adaptation. Goals are general, as are contents. Only when a planning needs significant adaptation will this be made and simplified together with the specialists from the department of educational guidance. They are the specialists and know how to guide teachers in their curriculum adaptation. For example, cognitive levels of attainment could be lowered from *creation* to *application* or *understanding* (e.g. from *Create a poster* to *Name the elements you can see in a poster*); or language-related *hypothesising* could be downgraded to *describing* (e.g. *Hypothesise about the climate change consequences* to *Describe what you see in pictures related to pollution*). Otherwise, when no significant adaptation is due to be made, goals and contents will be the same for all the students. In this case, attention to specific needs and to different levels will be carried out in two different moments: in task design and in assessment (see section 3.9.). This section will turn now to the principles of CLIL task-designing in relation to inclusion and attention to specific needs.

**Experiential learning** is one of the principles of the task-based approach. According to Nunan (2004: 12),

*An important conceptual basis for task-based teaching is experiential learning. This approach takes the learner's immediate personal experience as the point of departure for*

*the learning experience. Intellectual growth occurs when learners engage in and reflect on sequences of tasks. The active involvement of the learner is therefore central to the approach, and a rubric that conveniently captures the active, experiential nature of the process is 'learning by doing'. In this, it contrasts with a 'transmission' approach to education in which the learner acquires knowledge passively from the teacher.*

This is related to CLIL contexts, whose main characteristic is learning by doing —i.e. learning content and learning language at the same time— within the framework of cooperative methodologies between students. In section 6.5.2. I will describe the tasks used for monitoring students.

A second aspect in CLIL task-design is **collaborative problem-solving** (Renkl et al. 2002) providing different levels of intellectual challenge for students. Focus is placed on different kinds of learning, rather than on learning disabilities. This is related to Gardner's theory of multiple intelligences (1989), in line with heterogeneity in the levels you can find in the classroom. Tasks can be designed taking into account the different kinds of intelligences, e.g. in a lesson related to shopping in a supermarket, two possible tasks aligned with goals in the category CREATE could be:

- ◆ VERBAL INTELLIGENCE: Write a shopping list for breakfast.
- ◆ MATHEMATICAL INTELLIGENCE: Create a table with prices.

Furthermore, collaborative problem-solving takes into account **constructivism** (Fosnot 1996) insofar as it can help provide appropriate scaffolding for all students to attain the intended aims. **Scaffolding** (see section 3.1.4.) can be individualised according to the different needs.

Scaffolding leads to another aspect, the concept of **autonomous learning** (Murphy 2011), which encourages learners to develop their own capacity to plan, track, monitor and edit their personal progress. The teacher becomes a facilitator through encouraging and supporting rather than directing the learning process.

In order to deal with mixed-ability groups and heterogeneity in the class, tasks must be aligned with **different procedures of assessment** with different indicators and benchmarks. Portfolios and rubrics are useful tools to do so (see section 3.9.).

### 3.7.1.3. Strategies

In the design of tasks, teachers should take into account the cognitive progression from Bloom's Taxonomy so as to endow their design with a structure aligned with their curriculum plan. The final task will belong to the last categories and the pre-tasks and micro tasks will be grouped in different stages regarding cognition. As seen in section 3.6., according to Cano (2013), there are four clear stages for task development and implementation: **introduction, investigation, consolidation and creation**. These stages are intimately connected to the cognitive progression in goals. The introduction stage is related to tasks which help the students see what they know about the topic (watch a video, read a story, brainstorming, etc.). The investigation or research stage is related to tasks in which students have to manipulate, research and discover (matching, classifying, in-depth reading, etc). In the consolidation stage, the students structure what they have learned/discovered by means of organising tasks (mapping, graphic organisers, etc.). In the creation stage, students use H.O.T.S. to analyse, evaluate or create as well as share what they have learned (for instance, make a presentation, record a video or make a poster).

In language terms, tasks could be grouped in three main categories: **presentation** (the students are presented with the language), **manipulation** (students manipulate the language presented so as to get the hang of it) and **production/communication** (students use the language to perform different communication-based tasks).

How can teachers design tasks aligned with curriculum planning? According to Meyer (2010), there exist a number of strategies for designing CLIL-oriented tasks:

- ◆ **Rich input:** Classroom materials should be meaningful, challenging and authentic. Input in CLIL must be multi-modal: texts, video-clips, flash animations, webquests, podcasts, pictures, maps, satellite images, diagrams, mind-maps, etc.
  
- ◆ **Scaffolding:** It is essential for students to receive ample support so as to make sure that they successfully deal with authentic materials and that as much input as possible become intake, i.e. particular amount of input that a learner successfully processes to build up internal understanding of the additional language.
  
- ◆ **Rich interaction and pushed output:** Interaction connects output, internal learner capacities, particularly selective attention and output in productive ways. Learners need to be pushed to make use of their own resources.
  
- ◆ **Adding the intercultural dimension:** In CLIL task-design teachers have to include the intercultural component (see section 3.3.).
  
- ◆ **Make it H.O.T.:** In order to align task-designing with their curriculum plan, teachers must orient it towards a final communication-based creative task.
  
- ◆ **Sustainable learning:** when designing aligned CLIL tasks, teachers must create connections with students' attitudes, experience and knowledge; provide clear structuring; make students share their results; foster autonomous learning; adopt a translanguaging approach putting the different curriculum languages in relation; embrace a CALP-developing lexical approach; and promote spiral learning, i.e. brief exposure to a topic, then revisiting it, which allows students to construct their own understanding on a basic framework.

### 3.7.2. Examples and practice

According to Meyer (2010), the following scheme summarises the main elements in CLIL task design:

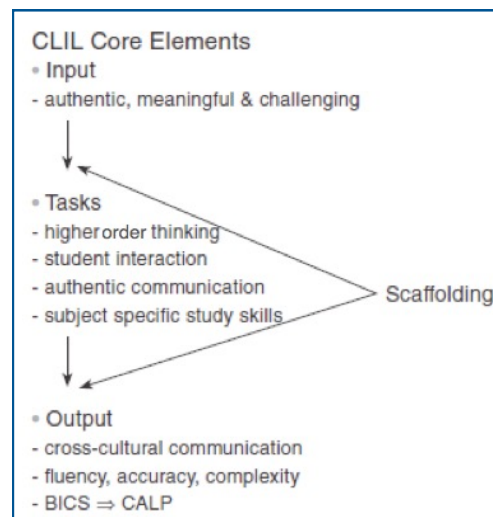


Table 31. CLIL core elements. Source: Meyer (2010)

As seen in the previous section, input must be authentic, meaningful and challenging. Tasks must be designed taking into account the progression of thinking skills (H.O.T.S.), student interaction, authentic communication —i.e. meaningful from the perspective of real life— and subject-specific study skills —content learning—. The teacher must provide the necessary support (scaffolding) for the students to be able to work on their own. The result —outcome intended— should be that students will communicate efficiently from an intercultural perspective, in a fluent way, accurately (accuracy is developed and achieved incidentally) and with more complexity, since language will become more specialised (from BICS to CALP).

Two possible templates for CLIL task-design aligned with third level curriculum planning could be building tasks around a topic. Students show increased achievement when tasks are sequenced and organised around topics:

- 1) Choose a topic.
- 2) Plan your final task.
- 3) Specify the linguistic elements the students will need to do the final task.
- 4) Design facilitating and micro tasks that will be necessary (task-sequencing)
- 5) Specify goals, contents, assessment...

Table 32. Task-design template 1

- 1) Choose a topic (taking into account students' interests, experience and level)
- 2) Plan your final task.
- 3) Determine unit objectives
- 4) Specify contents (language-related and subject-related)
- 5) Plan the process
- 6) Plan assessment

Table 33. Task-design template 2

Meyer (2010) designed the following template:

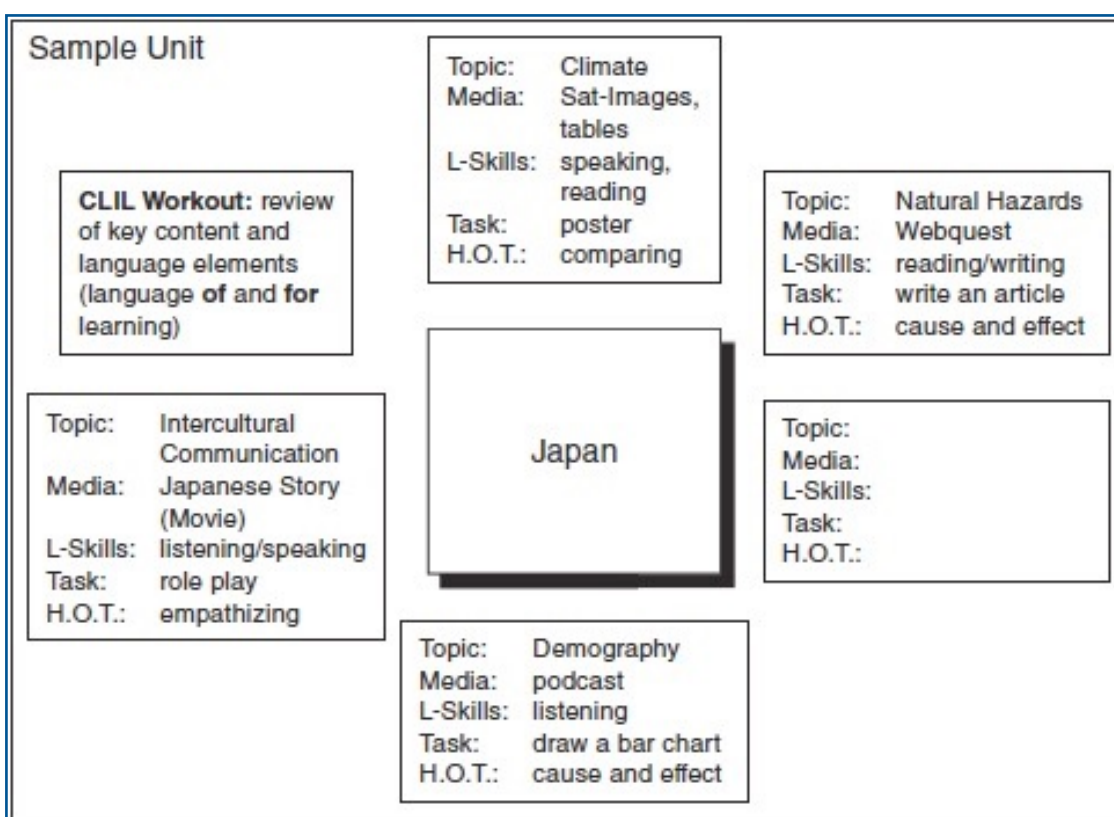


Figure 11. Task-design template 3. Source: Meyer (2010)

It is a template for designing final tasks. A common topic is used as a starting point to think about a possible final task. For instance, the topic Japan could be related to a sub-topic — e.g. natural hazards— with a final task —e.g. the writing of an article—. The media to use would be a webquest; the language skills to work upon would be reading and writing; and the sphere of thinking skills would be H.O.T.S. This template would serve the purpose of designing backwards, both in task-designing terms and curriculum-wise.



The following examples show CLIL final tasks aligned with curriculum planning. They were used in class, as were the ones analysed in section 7.2.1.—the first one is an example of year one and the second one belongs to year two—:

### 1) What kind of place will you live in when you get older?

(from <http://clilnegreira.com/2014/04/06/clil-tips-what-kind-of-place-will-you-live-in-when-you-get-older-suxestions-clil-en-que-tipo-de-lugar-viviras-cando-sexar-mais-velloa/#more-1471> )

Imagine that students are learning the future tense and first conditionals in English as well as the following topics in Geography CLIL: transport, tourism, population and migration.

**Level: CLIL year 1 (3ESO)**

#### Task

The contents you are studying in units 4 and 5 (Social Science/Geography) have to do with transport, tourism, population and migration. In English you are practising description and making predictions through learning comparatives/superlatives, the future tense and the first conditional. Watch the following YouTube videos:

<https://www.youtube.com/watch?v=dy5MIJ4Egvl>

<https://www.youtube.com/watch?v=1Lmd3loW5JI>

They include hypotheses about the future of our planet. In groups of 5, you will have to prepare a prezi presentation in which you will answer the question: What will cities be like 50 years from now? Express your answers in terms of how cities will change, making two or three predictions for each of the following topics:

**Transportation Pollution Crime Advertising Buildings Work Shopping Nightlife**

Then, start working and remember:

- 1) to use the language components seen so far: expression of future tense and first conditional for predictions as well as language for comparing and describing;
- 2) to make use of different media to support your presentation: video, audio, pics...

Once the presentations are finished, you will:

- 1) send them via email;
- 2) present them orally in the classroom;
- 3) be assessed through a rubric.

Table 34. Task: What kind of place will you live when you get older?

## 2) #GOYASLIFE #WAROFINDEPENDENCE VIA TWITTER

(from <http://clilnegreira.com/2014/01/14/clil-tips-goyaslife-warofindependence-via-twitter-suxestions-clil-goyaslife-warofindependence-via-twitter/>)

Is it possible to use Twitter for a creativity-based final task in History CLIL? The answer is YES. Today I am sharing a final task I did with my second-year CLIL students (History CLIL) using Twitter as a means to consolidate History and Language contents. There are some professionals that do not see the benefits of using Social Media Tools, particularly Twitter, to create tasks and activities. In my opinion, it can be a wonderful tool for developing editing skills and narrative structure, for topic discussion, for writing and punctuation improvement and for creation of chronologically-arranged events (a timeline creation is perfect for consolidation of historical contents). I am going to try and show evidence that using Twitter can be fun, learning-boosting and, above all, meaningful.

### TASK

After students learned about Goya's life and the Peninsular War in the CLIL class as well as the expression of the past in narrative and historical texts with me in the English class, I designed a final task in which the students (in two teams) had to construct and tweet a timeline with the most important events related to those two topics. The task was communication-based (written communication) aiming at developing Higher Order Thinking Skills (CREATE), last cognitive stage.

This was the way in which the task appeared on our Moodle: "The teacher will divide the class in 2 teams. Using Twitter, students will have to create two accounts (@CLILteam1 and @CLILteam2) and follow our primary account @CLIL\_negreira). Once created, they will have to design, decide and tweet two different timelines: one for Goya's life and another one for the War of Independence. The tweets will follow a rigorous chronological order and will include @CLIL\_negreira as well as the corresponding hashtag: either #GOYASLIFE or #WAROFINDEPENDENCE, followed by #CLIL.

Table 35. Task: #GoyasLife #WarofIndependence via Twitter

In both examples, connections with curriculum planning in both the CLIL subject and English appear. Input in both of them is authentic, meaningful and challenging. Technology is used with a purpose and the thinking skills aimed at are H.O.T.S. Scaffolding is clearly stated in the first task through explanation and resources, whereas it is restricted to explanation in the second one. Attention to diversity is dealt with through cooperative group work. These are both final tasks, the last step of a learning process. Pre-tasks must be designed in accordance with the templates above.

## 3.8. Project-based Learning

### 3.8.1. Fundamentals

Project-based learning (Solomon 2003; Bender 2012; Larmer & Mergendoller 2010; Sierra 2016) shares most of its characteristics with task-based learning (see section 3.7.): alignment with the curriculum, attention to specific needs, experiential learning, collaborative problem-solving, scaffolding, autonomous learning, etc. It shares as well the same kind of structuring and strategies as the ones in the task-based approach. Nonetheless, instead of using a final task, it is a project that is planned, devised and developed. The main difference is the fact that a project is, by and large, more complex than a final task and involves much more curriculum integration. As seen in section 3.1.3., the concept of curriculum integration is concerned with making cross-curricular connections, connections that will have an impact on curriculum design as well as on lesson planning. A project usually connects more areas than a final task and this is the reason why it is much more demanding in both curriculum and implementation terms.

Project-based experiences consist of a series of tasks that lead to a final project. According to Sierra (2016: 70), *'project work (PW) can be understood as a concatenation or constellation of tasks carried out over a time period'*. It is important not to confuse the term 'project' used in this here with the 'projects' used in ESL books —the so-called project-work section in the textbooks—, because the latter are generally final tasks. Typical examples of projects within the approach dealt with —in the cross-curricular sense— could be: organising an exhibition, a day devoted to something, or a research trip to the supermarket. All of them are ambitious and time-consuming as far as design is concerned.

Project-based learning is a teaching approach that engages students in sustained, collaborative real-world investigations. In project-based teaching, knowledge, thinking, doing and the contexts for learning are inextricably tied. Due to the fact that learning is a social activity, teaching methods can scaffold on students' prior experiences and include a focus on community and culture. Besides, our increasingly more digital and global society

makes educational professionals realise that not only must they prepare students for knowing about or learning new contents, but they must also engage them in tasks that prepare them for this global citizenship. Project-based learning falls within this category of globalised learning. Hence the involvement of a greater curriculum integration.

Projects are organised around a driving question, an inquiry-based context or a topic related to several sub-topics, and students carry out a variety of tasks that seek to meaningfully address this question or topic. Students engage in learning knowledge and skills through an extended inquiry process structured around complex, authentic questions and topics as well as carefully designed products and tasks. This process can last for varying time periods and can extend over multiple content areas.

In CLIL environments, where cognition is integrated with learning and communication, the use of questions is one of the teacher's most important resources. Teacher questioning, which encourages learner questioning, is fundamental to higher-order thinking skills, creativity and linguistic progression. Working with a range of question types for opening up communication in line with the subject demands makes CLIL effective classroom practice (see Barrett's Taxonomy in section 3.4.). The more demanding the questions, the more attention will be needed to ensure that learners can access the language needed to respond to and develop them. The same as the task-based approach, project-based design perfectly fits CLIL principles. In the two following definitions, project work can be connected to CLIL:

1) Thomas (2000: 32) explains that project-based learning requires

*[...] complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over extended periods of time; and culminate in realistic products or presentations.*

In this definition, students are perceived as agents of their own learning, learning that aims to problem-solving creation and decision-making, in terms of cognition.

2) According to Marx et al. (1994: 518), project-based instruction often has a

*[...] driving question encompassing worthwhile content that is anchored in a real-world problem; investigations and artifacts that allow students to learn concepts, apply information, and represent knowledge in a variety of ways; collaboration among students, teachers, and others in the community so that participants can learn from one another; and use of cognitive tools that help learners represent ideas by using technology [...]*

This second definition clearly mirrors the 4Cs framework and even deals with the terms collaboration and community seen in section 3.3.

Regarding the teacher role in CLIL project-based learning, he or she must thoroughly explain every task that is to be accomplished, provide detailed directions for how to develop the project and, when working in the classroom, circulate in order to answer questions and encourage student motivation. In order to create effective units focused on project-based learning, teachers must align the project with the curriculum planning. They must as well try and be flexible because projects might be demanding and attention to different abilities might be needed all the time. Teachers usually become learners and peers with the students. Project-based assessment can take place by means of a combination of objective tests, checklists, and rubrics. Nonetheless, these often only measure task completion. The inclusion of a reflective writing component provides self-evaluation of student learning.

As to the students role in CLIL project-based learning, they usually work in small, collaborative groups. They find sources, research, arrange and rearrange what they learn

and, most importantly, they hold each other responsible for both learning and task-completion, thus monitoring their own learning.

### 3.8.2. Examples and practice

Any of the templates for task-based learning seen in the previous section could be used for project-based design. However, taking into account the importance of cognition-based driving questions, another possible template could be the one proposed by Ravitz et al. (2004), adapted into:

- 1) Begin with the end in mind and plan the expected result.
- 2) Craft the driving question; select and refine a central question.
- 3) Plan the assessment and define outcomes and assessment criteria.
- 4) Map the project: decide how to structure the project, cross-curricular links...
- 5) Manage the process: find scaffolding tools and strategies for successful projects.

Table 36. Template for project-based design

The process is very similar to the one seen in task-design in section 3.7. When designing, teachers should first think about the intended result or product and, then, design backwards in terms of task, language necessary and curriculum planning. The following is an example of a possible project: an initial question/topic such as *Have you ever thought about making a timeline of your own life or of one of your relatives' or neighbours' life?*. This question leads the teacher to a possible final product: an oral presentation with a map, a model or any other visual/digital display; the tweeting of the timeline created; post the timeline on a blog; etc. Possible steps to create the final product could be:

- 1) After reading from an old journal, students will be inspired to learn more about their family and community from the era the journal was published. The teacher provides a selection of websites —cyber-route as scaffolding—. (Cognitive category: UNDERSTAND)

- 2) Students will then keep their own journal so they can pass on information about their community. Students use information for sharing. (Cognitive category: APPLY).
- 3) Students will interview grandparents and parents —or elderly relatives or neighbours— to collect data from their lives. There are Youtube Interview models to use on the classroom Moodle —scaffolding— ( Cognitive category: APPLY).
- 4) In groups this time, students will use the Internet (the cyber-route provided before) to research their town and how it has changed through time and will create a display to share information (Cognitive category: ANALYSE)
- 5) Students will collect data (Cognitive category: APPLY) and create a timeline of the person chosen (Cognitive category: CREATE)
- 6) Final product (Cognitive category: CREATE).

In terms of curriculum planning, the development of this project could be perfectly aligned with instructional goals: cognitive progression from L.O.T.S. to H.O.T.S. and language use from presentation to communication. Regarding curriculum integration, the project could be related to the following areas: Languages, Social Science, Arts and Crafts, ICTs, etc. The project is quite demanding because it involves research work in the community.

The following examples show real CLIL projects —developed in year one and year two respectively during the implementation of our research study— aligned with curriculum planning:

*CLIL PROJECT: Let's Create a GMap*

(from <http://clilnegreira.com/2013/12/14/clil-tips-lets-create-a-gmap-suxestions-clil-imos-crear-un-gmap/#more-1190> )

*“Today I am sharing a project I have just done with my 3ESO-CLIL students (first year in CLIL). Since they are learning Geography in English with their CLIL teacher, I decided to integrate Geographic contents in my language lessons as well. As a language coordinator, what I do is anticipate the language necessary for the CLIL class as well as integrate non-linguistic curricular contents in my lessons, in such a way that the students feel a sense of coherence in what we both do.*

*The following project is H.O.T.S. (Higher Order Thinking Skills) CALP (Cognitive Academic Language Proficiency) oriented. The starting point is the students’ own context and the project is based on content research, development of digital literacy and written language production. This is the way we presented it to our students on our Moodle:*

## 1. INTRODUCTION

*Maybe you won’t believe this, but you are sometimes the protagonist of a reverse travelling experience: instead of you going to the places, it is the other way round, the places go where you are. Crazy, isn’t it?. Well, let’s put it simple: this is something that happens every time you go to the supermarket. When you go there to do the shopping, lots of places come into contact with you. Funny? Not really. Think about it. If you have a look at the origin of the products on their labels, you will realise that a lot of countries you have never been to (let alone locate them on a map!) are on the supermarket shelves and end up being a part of your fridges and cupboards. In this project, we will focus on this reverse travelling experience. Are you ready?*

## 2. TASKS

*The teacher will divide the students in groups and will distribute the kinds of products each group has to do the research about. Then, the groups will do these tasks:*

- 1) Research products in a supermarket.*
- 2) Once the information needed has been collected, each group will make a GMap (students will need a Google account to be able to edit maps with Google Maps).*
- 3) Individually, students will write a brief composition about what they have learned from this experience.*



### 3. PROCESS

*These are the steps students must follow:*

1) *For task 1, you will have to choose one supermarket, go there and start your research study: write down the origin of the products your group has been assigned: fishmonger's, greengrocer's, frozen food, canned food and chocolate and coffee.*

2) *For task 2 (the making of a GMap), each group will geolocate (gmarkers) products on a map and will include the following information: name and brand of the product, basic geographical data (size, population and capital city). Procedure:*

- \* log in to Google Maps*
- \* then click on 'my places' (select the tab 'all' first)*
- \* then click on CREATE MAP*
- \* create a new map*
- \* give a name to your project*
- \* start introducing data*

*Once you finish, export in .kml format and email the file attached to the teacher.*

3) *For task 3, you must write a brief composition (250 words) summing up the process of research and including at least three things you learned from the experience.*

### 4. ASSESSMENT

*This CLIL project will be assessed through a rubric."*

In this example, there is again an initial question-based situation that will trigger the students' research process. The intended products the teacher wants the students (in groups) to create are a GMap and a piece of writing reflecting on what they have learned from the experience. The inclusion of a reflective writing component provides both learning

and self-evaluation. Thus the main principles of project-based work are fulfilled: experiential learning, collaborative problem-solving –attention to mixed-ability groups— and autonomous learning. Scaffolding is also present in the description of the whole process. Regarding curriculum integration, the project could be related not only to English and Social Science, but also to Arts and Crafts and ICTs. In terms of alignment of the project with curriculum planning, the contents dealt with are included in the curriculum for 3º ESO.

Alignment also takes place in the following example:

*CLIL Video Project: History, Food, Music and... YouTube*

(from <http://clilnegreira.com/2014/06/21/clil-video-project-history-food-music-and-youtube-video-proxecto-clil-historia-gastronomia-musica-e-youtube/>)

*This is the 4ESO CLIL project as it appears on our Moodle:*

*The final group project this year will take you a lot of time and work, but it will be worth it. It is going to be about food, music, historical costumes, acting, filming...all of it framed by a historical perspective. In groups, you will film a video in which you (dressed with historical costumes) will appear cooking a history-related recipe as well as giving step-by-step instructions for making that dish and commenting on its relationship to a particular historical period. The main elements of this cross-curricular project will be:*

*\* LANGUAGE*

*The language components you will focus on will be:*

- on the one hand, instructional language related to recipes and processes;*
- and, on the other hand, oral narrative language related to historical narration*

*\* CONTENT*

*You have seen lots of things related to History in Clara's CLIL class. Now it is up to you to decide! Choose one of the periods seen and start creating your project following the instructions below.*

*\* TECHNOLOGY*

*Choose any gadget to film the project (smartphone, iPad, camcorder, digital camera...), then upload it to YouTube and tweet to share.*

*\* INSTRUCTIONS*

*1) The teacher will divide you in groups. First, decide the historical period you want to research about. Use everything you have learned about the period in the CLIL class this year.*

*2) Then, look for a recipe related to the historical period chosen. The following websites can help:*

<http://www.historicfood.com/RecipesIndex.htm>

<http://www.our-food-recipes.com/historic-food-recipes.html>

<http://cookit.e2bn.org/historycookbook/index-20-world-war-2.html>

<http://www.godecookery.com/engrec/engrec.html>

*3) Once you have decided the period and recipe, you will need some music. Ask Kety, your Music teacher, for some help. You will need to use some music of the time as background music in the video. This will help you as well:*

[http://www.naxos.com/education/brief\\_history.asp](http://www.naxos.com/education/brief_history.asp)

*4) What about costumes and hairstyle? You will need to dress up as characters from the period chosen. You can use any kind of material to create your costumes. Have a look at these:*

[http://en.wikipedia.org/wiki/History\\_of\\_Western\\_fashion](http://en.wikipedia.org/wiki/History_of_Western_fashion)

<http://en.wikipedia.org/wiki/Hairstyle>

*5) Since you will have to film yourselves telling an imaginary audience how to elaborate a special dish and commenting on the historical aspects and the music of the time, you will have to prepare an elaborated piece of oral language:*

<http://www.youtube.com/watch?v=WTusWtjcQqg>

*6) Once props, costumes and discourse are ready, decide which things are going to be done and told by each of you and get everything sorted to start filming.*

7) Film your video. Read some rules for video-filming:

<http://lifehacker.com/214043/8-ways-to-shoot-video-like-a-pro>

8) Once filmed, edit your video to upload it to YouTube. Then, tweet the link to it followed by @CLIL\_negreira and the hashtags #CLIL and #CLILYOUTUBE.

*\* ASSESSMENT/AVALIACIÓN*

*The project will be assessed through a rubric.*

This project example is much more ambitious and complex than the previous one. Here, instead of finding an initial question, the teacher creates a whole inquiry-based context for research. Through the elaboration of a history-related recipe, the students will research through relating areas in a cross-curricular way: Language, History, Music, ICTs, Drama, etc. The intended project product is a video and all the previous tasks are perfectly explained. Thus the main principles of project-based work are fulfilled: experiential learning, collaborative problem-solving —attention to mixed-ability groups— and autonomous learning. The whole process appears scaffolded this time, since the students get ample support in each step of the process. Is the project aligned with the curriculum? The project designer makes it explicit in both language and content terms, explaining to the students the legitimate place of the project in the course curriculum:

*\* LANGUAGE*

*The language components you will focus on will be:*

- on the one hand, instructional language related to recipes and processes;*
- and, on the other hand, oral narrative language related to historical narration*

*\* CONTENT*

*You have seen lots of things related to History in Clara's CLIL class. Now it is up to you to decide! Choose one of the periods seen and start creating your project following the instructions below.*

Regarding assessment, in the real examples it is said that the students will be assessed through a rubric. I will deal with assessment in the next section.

## 3.9. CLIL Assessment in the Curriculum

### 3.9.1. Introduction

Despite its massive implementation for more than 25 years, the question of assessment in CLIL has been often cited as being under-researched (Linares et al. 2012; Coyle et al. 2010; Barbero 2012). Most of the existing research has prioritised the analysis of the role of language as well as of language proficiency (Wewer 2014). Only recently some studies focusing on different assessment-related aspects have emerged: relating motivational factors to assessment for learning in the CLIL classroom (Lofft Base 2016); or dealing with instruments in CLIL assessment (Barbero 2012; Massler et al. 2014).

All in all, although assessment in CLIL has been dealt with from a theoretical point of view in a number of publications (Marsh 2005; Coyle et al. 2010), the truth is that it has become a difficult area for the teachers involved in multilingual projects due to the lack of guidelines in practical terms. Teachers find it difficult (Calvo & San Isidro 2012) to both formulate integrated assessment criteria and standards and design tools. Furthermore, CLIL assessment practices, means and methods, need to be suitable for the specific educational context to which they are applied. What is valid and good practice in one context, may not be appropriate elsewhere. This is the reason why I included assessment as one of the key areas to work on with the participating teachers, considering conceptualisation, formulation in curriculum terms and tools. I will now explain what this section comprised for teachers.

Prior to start analysing assessment in terms of CLIL curriculum and lesson planning, it is important for teachers to reflect upon the concept of assessment and assessment tools. This will be instrumental so as to understand assessment in CLIL as integrated as it was for the teachers involved in the project. This section was the last training module for them.

When trying to provide an answer to the question *How do we know that students have learned what they should know?*, the first thing that comes to mind is tests. Evaluation in

the form of tests, which traditionally aimed to assess knowledge, has been the main assessment tool in education for years and its traditional lack of heterogeneity, attention to mixed abilities and multiple intelligences has made it rather limited. Schools usually test students using standardised tools that primarily focus on measuring recall and understanding (L.O.T.S.) and then consider the results a complete picture of their students' learning (Crocket et al. 2011). However, they should focus on measuring the students' capacity for analysing, assessing, hypothesising or creating (H.O.T.S.). The truth is that, although testing and exams are perfect tools to assess insofar as they are well designed so as to measure different capacities and abilities, the concept of assessment has changed in the course of years, and teachers must now resort to different tools to be able to cope with all the purposes of evaluation:

- Check whether learning takes place.
- Know about students' improvement.
- Reinforce the teaching-learning process.
- Assess materials and resources.
- Check teachers' work as teachers.
- Keep the school good working.
- [...]

Taking into account this multi-purpose concept of assessment and considering what has been dealt with in sections 3.7. and 3.8., tasks and projects are useful tools for evaluation in general and for CLIL assessment in particular. This approach to assessment allows students to carry out collaborative and real H.O.T.S.-based tasks or projects which focus on process and product as well as show the way learning takes place in this century. It is also related to the concept of global, continuous and ongoing assessment (McAlpine 2002). Tasks and projects are clear and make the students, their peers and the teachers been involved. Does this approach have an impact on curriculum planning? The answer is yes. Criteria and standards are to be formulated around the final tasks and projects. Which are the main characteristics in this multi-purpose assessment approach?

1) Process or product assessment? Real-life tasks and projects serve the purpose of assessing both the process and the product. According to Crocket et al. (2011: 3), students *'must become discerning and creative consumers of information'*. In the present-day digital reality, the application of H.O.T.S. in the context of real-world, real-life and real-time tasks is of paramount importance:

- ◆ For 21st century students, the world is just one click away. Real-life tasks can show a connection to technology —see section 3.3.—.
- ◆ Tasks and projects are intimately connected to the students' exposure to large amounts of multi-format information, which is *'in constant flux and readily available'* (Crocket et al. 2011: 3).
- ◆ For tasks to be relevant and motivating, they must be realistic.
- ◆ Tasks and projects must be relevant and relevance has to do with both the aim of the task/project and the media/materials/resources needed to carry it out. Crocket et al. (2011: 5) state that *'we must elevate the connection between instruction in school and the world outside if we hope to increase the relevance of the learning that takes place'*.
- ◆ A task as a report is an adequate means of assessment (involving specific literacy), although a podcast, a videocast or a comic can also be perfectly suitable.

2) H.O.T.S.-based? Crocket et al. (2011) state that final tasks and projects (see sections 3.7. and 3.8.) must be planned so as to assess H.O.T.S. as well as to measure the students' fluency and literacy. Pre-tasks, facilitating tasks, assessment tasks and tests must be designed to assess L.O.T.S. and H.O.T.S. The problem with some tests is that

they only assess L.O.T.S., as it happened in traditional models of assessment, even if they take place at the very end of the learning experience. A test aiming to assess previous knowledge could be focused on remembering and understanding, but a final test should be designed to assess H.O.T.S. Some key words to introduce questions in exams/tasks/projects which will be aligned with the criteria and standards for assessment could be:

L.O.T.S.	H.O.T.S.
List (remember) Define (remember) Identify (remember) Name (remember) Describe (remember) Comment (understand) Explain (understand) Exemplify (understand)	Compare (analyse) Analyse (analyse) Evaluate (evaluate) Judge (evaluate) Check (evaluate) Design (create) Build (create) Devise (create) Critique (evaluate) Plan (create) Develop (create)

Table 37. Verbs introducing L.O.T.S. and H.O.T.S. in tests

3) Collaboration is an essential part of the students' daily life. In communication terms, students develop their literacy through a number of means: they text messages (SMS, MSN, WhatsApp, etc), chat, videochat, tweet or share projects through Googledocs. It could be useful to teach them how to track their own learning and that of their peers by integrating those things into the design of tasks and assessment.

4) Feedback: traditional assessment used to grade students with a mark, nothing else. If there is no feedback, assessment cannot be considered as a learning activity (Hattie & Timperley 2007).

5) Transparency (Jonsson 2014): the students must perceive what they do in class as something legitimate, something with a purpose. Teachers should ask themselves before starting designing a couple of questions regarding assessment: how often are students provided with clear assessment criteria for the tasks they carry out? and how often are rubrics and portfolios used?



This approach to assessment does not contradict the use of formal testing, when well-designed and aiming to measure different capacities, skills, abilities, different levels. Testing is an important element in the global and ongoing assessment procedure together with other tools. In fact, an important part of this study was measuring students results in the different languages through standardised tests.

Testing can be internal —school and class related— or external —organised by authorities to measure different competences by the end of a particular stage or to monitor a specific pilot programme—. In the case of Spain, the Ministry of Education, Culture and Sport, collaborates with regional education bodies to evaluate the education system. The National Institute for Education Evaluation (*Instituto Nacional de Evaluación Educativa*, INEE) was established in 1990 as the central government body responsible for the evaluation of non-university education. INEE reports to the Spanish Parliament annually, using various system evaluations: general diagnostic evaluations; international student assessments, such as PISA; results of the National System of Education Indicators (*Sistema Estatal de Indicadores de la Educación*); and the report of the State School Board (*Consejo Escolar del Estado*), a participatory body of key education stakeholders. The objectives of system evaluations are to improve the quality and equity of education, guide education policy and increase the transparency and effectiveness of the education system.

Evidence on the education system can be used to help decision-makers develop informed policies leading to improve student outcomes. As said above, schools are expected to participate in internal and external evaluations. Internal evaluations are carried out by school staff with support from regional education authorities. External evaluations, the responsibility of education bodies in each of the regional governments, should consider students' socio-economic and cultural backgrounds, as well as the school's environment and resources. A development plan is prepared for each school, based on evaluation

results. Internal and external evaluations should be complementary to provide a broader perspective of evaluation and assessment and focus on improving student outcomes.

Despite the external assessment development above and contrary to expectations, there is no formal external testing or assessment guidelines on the CLIL programmes, which have been around in the country since the end of the 90s. There have been a few assessment-based analyses undertaken by universities and some administrations for the sake of research. However, there is no official nationwide external testing, and this, together with the fact that integrated assessment (as happened with integrated design) and the required tools for it are complex areas for CLIL teachers, are the main reasons for the focus of this section to be on CLIL assessment in both curriculum and lesson planning.

### **3.9.2. Assessing CLIL in the Curriculum**

Regarding assessment, what should teachers do in CLIL? Should they assess content? Language? Both? Although there are some studies dealing with integrated assessment (Serragiotto 2007), provision is not clear regarding this. The first thing that comes to mind is whether it is legal for a teacher of Mathematics, Science, Physical Education or Arts and Crafts to assess the language component —additional or foreign language component— in his or her class. Language criteria are always included in every area in any curriculum, because language is always the vehicle to learn. Besides, every area or subject must contribute to the development of the different key competences, including the language and communication competence. It is true, however, that there exists some provision in different regions encouraging only content-related criteria, but language is always going to be considered in curriculum terms. The more instruments for assessment teachers use, the more multi-purpose, accurate, integrated and fair their evaluation will be. The more informed the families are in terms of criteria for assessment and qualification, the better the procedure will work. It is essential to make it clear that there is a difference between assessment criteria —indicators related to curriculum planning— and qualification criteria —the percentage given to every task, activity, project or test, which will result in a grade or mark at the end of a learning period—.

I will focus first on the second level of curriculum development. In section 3.1., I dealt with the official curriculum in Spain and defined the different curriculum elements that are common to every school educational project. Within those elements, those related to assessment can be found:

- ◆ Assessment criteria: they describe what the teachers should assess as well as what the students must attain, in both knowledge and competence terms.
- ◆ Learning standards and assessable learning results: they make assessment criteria more concrete, specifying and grading performance.

In the official curriculum now in force, goals are formulated in general terms while criteria and assessable standards are designed in alignment with contents. Contents are set as nouns whereas assessment criteria (the same as goals) are formulated as infinitives. Assessable standards —more concrete rubric-based version of criteria— are formulated in the present, i.e. in terms of what the students can do.

As I have shown throughout chapter 3, regarding curriculum development in CLIL, it only takes place at school and classroom level, since there is no official curriculum (first level). It is the school teachers that have to take the official curriculum as a starting point and integrate content and language. In the second development level —the school— the general planning or programme is designed through contextualising goals, standards, criteria, etc. to the school context. If the school is enrolled on a CLIL programme, an integrated approach should be included for it, i.e. general goals, contents, standards and criteria related to the different areas will refer to both the subject and the additional language. The source for doing so is the official curriculum and its regional development. It is a demanding task and involves both the subject teacher and the language specialist. The latter will guide the former so as to include the language-related goals, content, standards and criteria that best fit the subject matter.

Going back to the example already analysed in section 3.5. —the subject Science Applied to Professional Activity —4° ESO— is taught through English—, in the same way as goals and contents are formulated, in terms of assessment, the subject teacher —i.e. CLIL teacher— must include and adapt subject-related criteria and assessable standards and, then, the language specialist adds the language-related ones:

<b>4ESO - Science Applied to Professional Activity - Block 1 Basic Techniques</b>	
<b>Assessment Criteria</b>	<b>Assessable standards</b>
Use lab materials and products correctly.  Comply with safety and hygiene measures in the lab.  Apply techniques and tools that are appropriate to identify values/sizes.  Contrast hypotheses through experimentation, data collection and result analysis.	The student...  determines the type of tools necessary, according to the kind of experiment;  recognises and complies with safety rules and hygiene measures;  collects and relate data;  determines or identifies measurements of mass, volume or temperature using chemical or physical procedures;  etc.

Table 38. Assessment criteria and standards for Science Applied to Professional Activity

As shown in the table, criteria (equivalent to instructional objectives or learning outcomes) are formulated taking cognition into account (Bloom's APPLY to EVALUATE). Assessable standards develop the criteria in a more specific way. How is the language component integrated?

4ESO - INGLÉS	
Assessment Criteria	Assessable standards
Identify general meaning.	The student...
Know and use text comprehension (either oral or written).	understands the main points in oral and written texts;
Recognise and use lexicon related to the subject matter.	understands what he/she is asked to do;
Use lexicon and structures related to the subject matter.	uses lexicon related to lab procedures and techniques;
Produce oral or written texts with specific and varied communicative purposes: presenting, hypothesising, expressing reason...	uses lexicon and structures related to the expression of quantity;
	makes structured, previously rehearsed presentations;
	writes brief reports over experiments;
	etc.

Table 39. Assessment criteria and standards for English

The language component in the table above shows Barrett's progression from literal comprehension to appreciation (Barrett 1968). The four skills are present as well as language of, for and through learning (Coyle et al. 2010). This part in CLIL curriculum planning is a complex one as teachers must elaborate a plan or programme for a whole school year.

When talking about the transition to the third level –assessment in the lesson planning–, which I will delve into in the next section, it is important to remember that assessment takes place in a multi-level way, i.e. in the planning of criteria and standards in every unit as well as in the tools and design of the different tasks, projects, activities and tests. Every CLIL teacher should bear in mind the following assessment-related fundamentals and strategies (San Isidro 2009b):

- ◆ Assessment must be ongoing.

- ◆ Teachers should use instruments where 1) students' work is registered and 2) more criteria other than content could be used, such as cognition, communication and community.
- ◆ Correction should not be penalised when assessing, although it should be considered as an instrumental aspect regarding classroom interaction.
- ◆ Assessment must mirror classroom practice (alignment).
- ◆ Assessment must be transparent. Students need to know which the criteria and standards are.
- ◆ Assessment must take into account the processes involved in additional language learning.
- ◆ Assessment in CLIL is integrated. How? By integrating descriptors, as in:

<p>In the question "Why did Rome fall?"...</p> <p>1) Content descriptors could be: military problems; rise of Christianity/Islam; decadence; division of the Empire...</p> <p>2) Language descriptors could be: past tense; existential 'there'; lexicon (Empire, Romans, barbarians...); structure (intro/main body/conclusion; paragraphs ...); functions, cause/effect, sequencing...</p>
--

Table 40. Descriptors for the question *Why did Rome fall?*

With regard to strategies:

- ◆ Use portfolios (Paulson et al. 1991; Newby et al. 2004-2007; Bamond 2015) to store students' work as an essential element for assessment.
- ◆ In content-related tests aiming to measure primarily content learning, reduce verbal information in the students' answers by using: multiple choice, summaries and mind-mapping, visual and graphic elements, etc.
- ◆ In order to cater to different levels, adapt exams/tests (from a language point of view) and simplify instructions.
- ◆ Use rubric-dependent tasks and projects as assessment tools (Stevens & Levi 2005, 2013).
- ◆ Provide students with glossaries and word banks so that they can carry out the task/project or do the test under optimal conditions.

### 3.9.3. CLIL Assessment in the Lesson Planning

As said in the previous sections, assessment in CLIL is integrated and tasks and projects can be perfect tools to carry it out. When designing a class programme or plan, teachers have to think about a final task or project related to the main topic to later design the unit around it. The question is how to assess through using tasks and projects as tools. There are some key questions teachers should address before designing integrated rubric-based procedures:

1) What is **the role of assessment in the third level of CLIL curriculum** development?

When dealing with assessment in the classroom, regarding both design and practice, teachers can use three different types of assessment suitable for CLIL, which match the fundamentals and strategies dealt with previously. These three types of assessment are regularly used in the curricula of Canada and Australia for general teaching and learning practice (<http://www.education.vic.gov.au/school/teachers/support/Pages/module2.aspx>):

a) *Assessment of learning*

Assessment of learning refers to those assessments (oral, performance and written as well as assessments combining two or more of these models) that occur at or near the end of an instructional unit, term or semester. They provide students with opportunities to synthesise their learning and demonstrate how well they have learned the essential skills, procedures and concepts presented during a given instructional period.

b) *Assessment for learning*

Designed specifically to help students improve their learning. Characteristics:

- It is responsive to all learners by identifying areas of strength and need;
- It is descriptive, not evaluative;
- It uses quality feedback;
- It is ongoing;
- It causes students to reflect upon their work and learning.

c) *Assessment as learning*

Students monitor their own learning and progress through reflection: diaries, portfolios, rubrics, tracking sheet, group work, etc. It involves students in structured self and peer examination of their work.

2) **Feedback:** as seen in 3.9.1., assessment cannot exist without effective feedback (Crocket et al. 2011):

- ✦ It is provided in a timely manner.
- ✦ It is accurate, descriptive and will help students develop independent learning habits.
- ✦ It is given to students either in words or through any other means such as tutorials, graphs, mindmaps, visuals, etc.
- ✦ It includes statements of students' strengths and weaknesses as well as guidance on how to improve.
- ✦ It describes attainable student learning goals.
- ✦ It requires students to focus on the task.
- ✦ It must involve students and may involve peers.

3) Besides, when a CLIL teacher faces assessment, he or she has to cope not only with a multi-purpose what-to-learn —the curriculum expectations in terms of the 4Cs— but also with an integrated how-to-learn component:

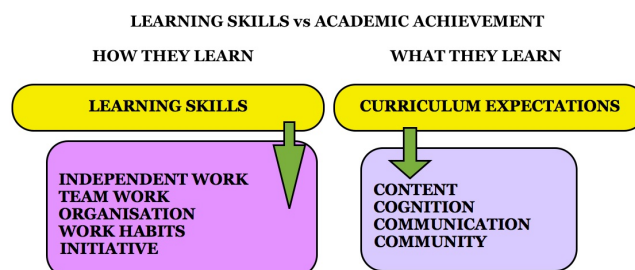


Figure 12. Learning skills vs academic achievement in CLIL



In other words, assessment must integrate independent as well as collaborative mixed-ability group-work (Gillies 2003) —typical of tasks and projects— at the same time as criteria and standards will be formulated taking the following four categories into account:

<b>CATEGORIES</b>	<b>DEFINITION</b>
<b>CONTENT</b>	The acquisition of subject-specific content and understanding of its meaning.
<b>COGNITION</b>	The use of critical and creative thinking skills and/or processes.
<b>COMMUNICATION</b>	The conveying of meaning through various forms.
<b>COMMUNITY</b>	The use of knowledge and skills to make connections within and between various contexts, including multiple cultural perspectives, technology...

Table 41. Categories for assessment in CLIL

4) Following the previous pattern, teachers should design or formulate assessment criteria in relation to each of the categories and aligned with the different kinds of tasks: paper and pencil tasks (write), performance tasks (do) and communication tasks (say). Every category can be related to each type of tasks, since teachers can assess content, communication, cognition or community in either a performance, a paper and pencil or a communication task.

### 3.9.3.1. The CLIL Rubric

As seen above, it has been only recently that research on tools for CLIL assessment has emerged (Massler et al. 2014; Barbero 2012; Bamond 2015). Assessment in CLIL is a complex process, due to the integrating nature of its design. So far I have analysed the presence of CLIL in the curriculum and described the procedure to formulate criteria in alignment with categories and tasks. What about developing those criteria into concrete standards? Rubrics (Stevens & Levi 2005, 2013) are a useful tool for CLIL integrated assessment. They are a set of guidelines for measuring student achievement based on

criterion-referenced standards that reflect learning expectations. They are instrumental in CLIL assessment because:

- ◆ They integrate assessment of, for and as learning.
- ◆ They serve the purpose of attending to diversity in the classroom.
- ◆ They outline criteria for tasks and projects.
- ◆ They provide informative feedback about strengths and areas that need improvement.

As regards teachers, rubrics can be used for diagnostic assessment for learning and assessment of learning ( Del Río & San Isidro 2016). They can also be used for anecdotal and evaluative feedback. As to students, by means of rubrics, they can identify what to pay attention to —assessment as learning— as well as spot and solve the problems of their own work —self-assessment— and the work of others —peer assessment—.

When developing task-specific or project-specific CLIL rubrics (see template below), teachers have to be aware of the following elements:

- ◆ Criteria: what they are going to assess (related to every CLIL category).
- ◆ Standards: criterion-referenced different levels in which every criterion could be divided in agreement with students' performance. Each level can be graded as a mark or as qualitative feedback.
- ◆ Descriptors: the characteristics of students' achievement based on each criterion.
- ◆ Qualifiers: numbers, qualities, etc. used for grading or for providing qualitative feedback.

CATEGORIES	50-59% (LEVEL 1)	60-69 % (LEVEL 2)	70-79% (LEVEL 3)	80-100% (LEVEL 4)
<b>Category: COMMUNICATION</b>	<b>STANDARDS</b>			
<b>Criteria:</b>	<b>The student...</b>			
Express and organise ideas and information (e.g., clear expression, logical organisation) in oral, graphic and written forms, including media forms  Communicate for different audiences and purposes (e.g. use of appropriate style, voice, point of view) in oral, graphic and written forms, including media forms	* expresses and organises ideas and information with <i>limited</i> effectiveness.  * communicates for different audiences and purposes with <i>limited</i> effectiveness.	* expresses and organises ideas and information with <i>some</i> effectiveness.  * communicates for different audiences and purposes with <i>some</i> effectiveness.	* expresses and organises ideas and information with <i>considerable</i> effectiveness.  * communicates for different audiences and purposes with <i>considerable</i> effectiveness.	* expresses and organises ideas and information with a <i>high degree</i> of effectiveness.  * communicates for different audiences and purposes with a <i>high degree</i> of effectiveness.

**QUALIFIERS**

**DESCRIPTOR**

Table 42: CLIL Rubric template. Adapted from Del Río & San Isidro (2016)

The levels are related to the way the students perform the task or project and serve the purpose of assessing. Performance is graded in each category and the result is elicited after integrating results in each of them. For rubric design, teachers can use any digital template (Powerpoint, Keynote, Google forms, Zoho...) or resort to online rubric generators, such as Rubistar –<http://rubistar.4teachers.org/>– or iRubrics – <http://www.rcampus.com/indexrubric.cfm>–

### 3.9.3.2. Examples and practice

In this last section I will analyse real CLIL rubrics related to specific tasks or projects seen in sections 3.7. and 3.8. :

1) In section 3.7.2. I analysed two of the final tasks used in this research study: *What kind of place will you live when you get older?* and *#Goyaslife #Warofindependence via Twitter.*

Their corresponding rubrics (taken from the links provided in that section) are:

	LEVEL 1 C	LEVEL 2 B	LEVEL 3 A	TOTAL SCORE
<p><b>COGNITION</b></p> <p>Create a prezi presentation, showing their capacity for description, comparison, analysis and assessment;</p> <p>Customise prezis showing creativity.</p>	<p>Students present their prezis with a plain format (uncustomised) and basic info, with only description and neither analysis, assessment nor comparison.</p> <p>Students include basic predictions.</p>	<p>Students show creative skills through basic customisation: they include from 1 to 5 widgets, pics, videos, audio files...</p> <p>They express more than basic information through description, comparison, analysis and judgement.</p>	<p>Students show utterly customised prezis: they include more than 5 widgets, pics, videos, audio files...</p> <p>Students convey complete information and their prezis show ideas logically connected.</p> <p>Students analyse information, judge it, assess it, compare it, etc.</p>	
<p><b>CONTENT</b></p> <p>Learn CLIL geographical contents (transportation, population...) as well as Prezi use.</p>	<p>Students show basic knowledge of Prezi as well as basic content learning, only including enumeration of facts.</p>	<p>Students show more than basic knowledge of Prezi use.</p> <p>Students show understanding and can apply their knowledge.</p> <p>They use some links to support the facts.</p>	<p>Students show their mastery of Prezi use.</p> <p>Students research into geographical contents, including explanation and adding links to support the facts.</p>	
<p><b>COMMUNICATION</b></p> <p>Show language accuracy and their capacity for written communication.</p>	<p>Students can use the written language, but they lack elaboration.</p> <p>Students use words or phrases.</p> <p>They make some serious grammar mistakes.</p>	<p>Students use written language in a more elaborated way through the use of sentences.</p> <p>They make few grammar mistakes, although some of them are rather serious.</p>	<p>Students use elaborated sentences and minitexts.</p> <p>They do not make any serious grammar mistakes.</p>	
<p>Show language accuracy and their capacity for oral communication.</p>	<p>Students can use the oral language, but they lack elaboration.</p> <p>Students use words or phrases.</p> <p>They make some serious grammar mistakes.</p>	<p>Students use oral language in a more elaborated way through the use of sentences.</p> <p>They make few grammar mistakes, although some of them are rather serious.</p>	<p>Students use elaborated sentences and minitexts.</p> <p>They do not make any serious grammar mistakes.</p>	
<p><b>COMMUNITY</b></p> <p>Make connections between different time periods.</p>	<p>Students show few connections between the present and the future.</p>	<p>Students show some connections between both periods (3 to 6)</p>	<p>Students show connections between both periods (more than 6)</p>	

Table 43. CLIL rubric 1

The rubric above assesses the four CLIL categories: criteria are established in general terms and later made explicit through standards, whose descriptors and qualifiers are number-related or quality-related. In the category cognition, what is assessed is the student's creativity (customisation), which is standardised through numerical descriptors.

Content is assessed through knowledge about geographical contents learned and the skills in using the app —Prezi—. Communication is assessed through two criteria (referring to oral and written language). Mistakes are not penalised, but the rubric puts value on the lack of them. Community is here restricted to the capacity of students to make connections between their present-day era and a hypothetical future one. The important thing with this rubric is its capacity for clearly identifying strengths and weaknesses. The levels are C (Pass), B (Good) and A (Very good) in each of the categories and weak and strong points can be related to all of them. Criterion-referenced standards clearly make the rubric useful for different abilities. In general terms, this tool allows teachers to integrate the different components in order to assess performance related to a CLIL integrated task.

The following rubric shows criteria and standards corresponding to the Twitter activity:

	LEVEL 1 C	LEVEL 2 B	LEVEL 3 A	TOTAL SCORE
<p><b>COGNITION</b></p> <p>Tweet a historical timeline, showing their capacity for analysis and assessment.</p> <p>Customise a Twitter account showing creativity.</p>	<p>Students present accounts and timelines with a plain format (uncustomised) and basic info, with neither analysis, assessment nor comparison.</p>	<p>Students show creative skills through basic customisation.</p> <p>Students express more than basic information through analysis and judgement.</p>	<p>Students show utterly customised accounts and timelines.</p> <p>Information is complete and their tweets show logically connected ideas. Students analyse information, judge it, assess it, compare it, etc.</p>	
<p><b>CONTENT</b></p> <p>Learn CLIL historical facts (Goya's life and the War of Independence or Peninsular War)</p> <p>Learn about Twitter use.</p>	<p>Students show basic knowledge of Twitter as well as basic content learning, only including enumeration of events and dates.</p> <p>Students tweet from 10 to 20 times.</p>	<p>Their timelines show more than basic knowledge of Twitter use.</p> <p>Students show they have gone into research more deeply. They use some links to support the facts.</p> <p>Students tweet from 21 to 50 times.</p>	<p>Students show their mastery of Twitter use as well as complete research into historical contents, including explanation and adding links, widgets and pictures to support the facts.</p> <p>Students tweet more than 50 times.</p>	
<p><b>COMMUNICATION</b></p> <p>Show language accuracy in written communication.</p>	<p>Students can use the written language, but they lack elaboration.</p> <p>Students use words or phrases.</p> <p>They make some serious grammar mistakes.</p>	<p>Students use written language in a more elaborated way through the use of sentences.</p> <p>They make few grammar mistakes, although some of them are rather serious.</p>	<p>Students use elaborated sentences and minitexts.</p> <p>They do not make any serious grammar mistakes.</p>	

	LEVEL 1 C	LEVEL 2 B	LEVEL 3 A	TOTAL SCORE
<p><b>COGNITION</b></p> <p>Tweet a historical timeline, showing their capacity for analysis and assessment.</p> <p>Customise a Twitter account showing creativity.</p>	<p>Students present accounts and timelines with a plain format (uncustomised) and basic info, with neither analysis, assessment nor comparison.</p>	<p>Students show creative skills through basic customisation.</p> <p>Students express more than basic information through analysis and judgement.</p>	<p>Students show utterly customised accounts and timelines.</p> <p>Information is complete and their tweets show logically connected ideas. Students analyse information, judge it, assess it, compare it, etc.</p>	
<p><b>CONTENT</b></p> <p>Learn CLIL historical facts (Goya's life and the War of Independence or Peninsular War)</p> <p>Learn about Twitter use.</p>	<p>Students show basic knowledge of Twitter as well as basic content learning, only including enumeration of events and dates.</p> <p>Students tweet from 10 to 20 times.</p>	<p>Their timelines show more than basic knowledge of Twitter use.</p> <p>Students show they have gone into research more deeply. They use some links to support the facts.</p> <p>Students tweet from 21 to 50 times.</p>	<p>Students show their mastery of Twitter use as well as complete research into historical contents, including explanation and adding links, widgets and pictures to support the facts.</p> <p>Students tweet more than 50 times.</p>	
<p><b>COMMUNICATION</b></p> <p>Show language accuracy in written communication.</p>	<p>Students can use the written language, but they lack elaboration.</p> <p>Students use words or phrases.</p> <p>They make some serious grammar mistakes.</p>	<p>Students use written language in a more elaborated way through the use of sentences.</p> <p>They make few grammar mistakes, although some of them are rather serious.</p>	<p>Students use elaborated sentences and minitexts.</p> <p>They do not make any serious grammar mistakes.</p>	
<p><b>COMMUNITY</b></p> <p>Make connections through various contexts.</p>	<p>In their tweets students show few connections between Goya's life and the Peninsular War (less than 3)</p>	<p>In their tweets students show some connections between Goya's life and the Peninsular War (3 to 6)</p>	<p>In their tweets students show connections between Goya's life and the Peninsular War (more than 6)</p>	

Table 44. CLIL rubric 2

Once again, criteria are established in general terms and later made explicit through standards, whose descriptors and qualifiers are number-related or quality-related. The category cognition is assessed by means of criteria related to the student's creativity (customisation) and their capacity for analysis and assessment. Standards range from lack of customisation and basic information to full customised design and analysis. Content is assessed through knowledge and analysis of historical concepts as well as of Twitter use. Communication is assessed through standards ranging from simple wording to sentence and text elaboration. Mistakes are not penalised, but the rubric puts value on the lack of

them. Community is here restricted to the capacity of students to make connections between various historical contexts. Criterion-referenced standards clearly make the rubric useful for different abilities and valid for CLIL assessment.

2) In section 3.8.2., I analysed the project *CLIL Video Project: History, Food, Music and... YouTube*. In the link provided for it in that section, its assessment rubric can be found:

	LEVEL 1 C	LEVEL 2 B	LEVEL 3 A	TOTAL SCORE
<p><b>COGNITION</b></p> <p>Create a YouTube video, showing their creativity as well as their capacity for application, assessment and analysis.</p>	Students present their videos in a rather basic format (lack of elaboration regarding props and costumes) with little information, with neither analysis nor assessment. No attention to dresses or hairstyles or any other details.	Students show creative skills: they include props, costumes and hairstyles that perfectly match the content. Information is presented through through analysis and assessment.	Students show their creative skills through their elaborated videos: they include well-designed props, costumes and hairstyles that match the content. Information is complete and they show logically connected ideas. Students analyse and assess information.	
<p><b>CONTENT</b></p> <p>Learn historical facts from a specific period as well as video-filming and YouTube use.</p>	Students show basic knowledge of the period chosen, only telling 1-3 facts from the period chosen.  Students do not pay attention to video-filming rules.	Students show more than basic knowledge of video-filming and YouTube use as well as the fact that they have gone into research more deeply. They include 3-6 historical facts from the period chosen.	Students show their mastery of video-filming and YouTube use as well as complete research into historical contents. They mention more than 6 historical facts from the period chosen connecting food, music, history and costumes.	
<p><b>COMMUNICATION</b></p> <p>Show language accuracy and coherence as well as their capacity for oral communication.</p>	Students use simple sentences showing a lack of connectors, basic use of narrative language and some serious grammar mistakes.	Students use more elaborated language through the use of longer sentences and the structure suggested in the videotutorial.  They show good and balanced distribution of turns.  They show few grammar mistakes, although some of them are rather serious.	Students use elaborated sentences and minitexts, logically connected, showing a balanced distribution of turns, a good distribution of ideas through connectors, a coherent and cohesive structure and an absence of serious grammar mistakes.	
<p><b>COMMUNITY</b></p> <p>Make connections through various contexts.</p>	Students show few connections between the recipe-making and the historical period (less than 3).	Students show some connections between the recipe-making and the historical period (3 to 6).	Students show connections between the recipe-making and the historical period (more than 6).	

Table 45: CLIL rubric 3

Criterion-referenced standards show number-related or quality-related descriptors and qualifiers. The category cognition is assessed by means of criteria related to the student's creativity (props used) and their capacity for analysis and assessment ideas. Standards range from basic format and information to fully elaborated videos and analysis. Content is assessed through knowledge of historical facts as well as of video-filming. Communication is assessed through standards ranging from sentence use to logically connected texts. Mistakes are not penalised, but the rubric puts value on the lack of them. Community is here related to the capacity of students to make connections between various historical contexts and descriptors and qualifiers are formulated in numbers.

The CLIL rubric formula can be easily integrated into classroom practice and can serve the purpose of self-assessment and peer assessment. The rubric is the final part of alignment between goals, contents, assessment criteria, tasks/projects and standards and puts in place every single element seen regarding CLIL curriculum planning and design.

This section is the last training module participating teachers went through before starting the project.

### **3.10. Conclusion**

The focus of this chapter has been CLIL design and pedagogy. Teachers taking part in the project were previously trained through the different modules. As said at the beginning of the chapter, with a view to making the longitudinal study on which this dissertation is based successful, I took into account two research studies I carried out previously (Barreiro & San Isidro (2009) and Calvo & San Isidro (2012)) and, together with the teachers involved in the project (see chapter 6), decided to create training pedagogical modules covering the main areas related to CLIL theory, design and implementation. The above-mentioned studies concluded that, according to teachers' opinions, pedagogy-based teacher training is the *sine qua non* for successful CLIL.



As seen in the different sections described, the different modules were designed considering different blocks of contents:

1) Integrated curriculum planning and design, using the four Cs framework (Coyle 2007; Coyle et al. 2010): teachers were taught how to design their curricula and plan their lessons integrating every C: cognition, content, communication and culture.

2) Task-based learning and project-based learning (Sierra 2016): teachers were taught how to align their planning with task and project design.

3) Integrated assessment: teachers were given templates and tools so as to be able to integrate the four CLIL dimensions —the four Cs— in their assessment procedures.

Chapter 3 describes the core methodological components used in our two-year project. Gaining an insight into the pedagogy used will serve the purpose of understanding the analysis of its impact on students' results and attitudes (see chapter 7).

## CHAPTER 4: CLIL AND RESEARCH RESULTS: LITERATURE REVIEW

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Chapter 2 addressed key concepts in the literature regarding bilingualism, its relationship to education as well as factors influencing language learning directly connected to the focus of this thesis. Chapter 3, on the other hand, centred on conceptualising Content and Language Integrated Learning —CLIL— through the analysis of curriculum design and pedagogy. In this chapter I will deal with the research literature specifically related to the design and analysis of our longitudinal study, which, as explained in section 2.3.1., is focused on:

- 1) The triangulation-based analysis of students', families' and teachers' perceptions of language learning —related not only to both environmental and additional languages but also to CLIL implementation— through measuring students' and families' attitudes and motivations along with families' and teachers' opinions during the course of two years.
- 2) The analysis of students' results in the three curricular languages —Galician, Spanish and English—and in the CLIL subject —Social Science— through tests held in three different moments between 2012 and 2014.
- 3) The analysis of data related to students' oral code-switching elicited from monitoring integrated tasks during two years.

As seen in section 3.1.1., when trying to conceptualise CLIL as an approach or a model, one easily comes across a multifaceted vision dependent on different perspectives — languages, content, culture, context, cognition, technology, etc.— which makes it rather difficult to provide a straightforward definition. However, if we take a look at what the research literature says about the concept and its effects on language and content learning, the fact that it has become marmite amongst academics is immediately obvious.

According to Marsh et al. (2005: 5), the term CLIL was adopted in 1994 as a generic ‘*umbrella*’ term to refer to

*diverse methodologies which lead to dual-focused education where attention is given both to topic and language of instruction. It is used to describe any educational situation in which an additional (second/foreign) language is used for the teaching and learning of subjects other than the language itself.*

Coyle (2007: 545) defined it as an ‘*integrated approach where both language and content are conceptualised on a continuum without an implied preference for either*’. From its very beginning CLIL has been referred to as a set of pedagogical practices that are changing educational parameters insofar as it involves a less compartmentalised view of the curriculum as well as a bigger focus on meaningful tasks through the use of additional languages (Coyle 2007; Coyle et al. 2010; Del Río & San Isidro 2016; San Isidro 2016). The truth is that CLIL gives the students the chance to use the language in a more authentic and meaningful context so that their attention is focused on the content while language becomes a means or an instrument to reach an end. According to Marsh (2005), a learning context of this kind increases not only the student’s exposure to the additional language, but also develops the student’s cognitive abilities.

Initially, CLIL was ‘*heralded as the potential lynchpin to tackle the foreign language deficit on our continent*’ (Pérez Cañado 2016a: 2). However, the numerous attempts to characterise this approach have sparked off ongoing and thought-provoking debate regarding its relation to:

- ◆ preceding bilingual immersion programmes (Pérez Cañado 2012);
- ◆ its being considered not just a descendant of other bilingual programmes (Pérez Cañado 2012; Pérez-Vidal 2013);
- ◆ its conceptual ‘*vagueness*’ (Bruton 2013: 588) vs. its being a ‘*well-recognised and useful construct for promoting L2/foreign language teaching*’ (Cenoz et al. 2013:16);

- ◆ or its relation to immersion programmes aimed at protecting minority or regional languages (Somers & Surmount 2011; Cenoz et al. 2013).

Prior to starting our research project back in 2012, there already existed a plethora of research studies related to CLIL theory and implementation. Pérez Cañado's wide angle analysis of CLIL research in 2012 was a starting point for me when designing the longitudinal research study that underpins this thesis. She provided a comprehensive and unbiased critical analysis of earlier literature: 1) giving a detailed summary of previous immersion programmes CLIL is considered to descend from —Canadian Immersion, North American bilingual education and European international schools—; 2) providing a detailed analysis of the state of the art through characterising the heterogeneous CLIL panorama; and 3) analysing research outcomes from a geographical perspective, grouping research by areas: Northern, Central, Eastern and Southern Europe. In her analysis, Pérez Cañado concluded that *'solid empirical studies have been sparse'* (2012: 329). In a more recent article (Pérez Cañado 2016b), she updated her previous review and analysed CLIL-related literature via three main parameters: characterisation, implementation and research. With a view to introducing the different sections in this chapter, I will use Pérez Cañado's (2016b) threefold perspective and give a general overview of CLIL research before moving on to the different sections.

As regards characterisation, CLIL has been seen as a *'well-recognised and useful construct for promoting L2/foreign language teaching'* (Cenoz et al. 2013:16) which, despite the myriad of differences and context-dependent nuances in implementation, has shown, as seen in chapter 3, a massive range of commonalities (Coyle 2007; Coyle et al. 2010; San Isidro 2009b, 2016). In recent years, this view has changed and some research has turned to show a more negative and somewhat dismissive view of CLIL conceptualisation (Paran 2013; Bruton 2013), in terms of it being vague and too heterogeneous. The truth is that CLIL has adapted to the variegated contexts of the European language diversity and, despite the fact that it is inextricably connected to its predecessors and bears a relation to minority language immersion programmes, it has an

entity on its own and is easily identifiable as a set of educational practices (Coyle 2007; Navés 2009; Lorenzo 2007; Pérez-Vidal 2013).

Nonetheless, the heterogeneity-turned-into-vagueness conceptualisation above (Bruton 2013) is debatable. The fact that CLIL is usually linked to and identified with the previous bilingual education models might be explained by some misconceptions leading to confusing interpretations of this approach. Although CLIL shares characteristics with its predecessors (Cenoz & Ruiz de Zarobe 2015; Somers & Surmount 2011), Canadian immersion or American bilingual programmes *'bear little resemblance to the study of English through the 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'* (Gallardo del Puerto et al. 2009: 65), a statement also supported by Lasagabaster and Sierra (2010).

Pérez Cañado (2012: 327), when differentiating CLIL in Spanish bilingual and non-bilingual communities, puts CLIL on a par with immersion programmes stating *'regarding the amount of CLIL experience, [...] bilingual communities have been working with it for more than 25 years'*, although minority language immersion programmes in Spain existed way before CLIL. Similarly, Lorenzo (2007: 28), claims that CLIL is *'considered the European label for bilingual education'*, a statement that comes across as surprising, considering the existence of bilingual programmes in Europe a long way before the coinage of CLIL, playing a weak hand on minority (regional) language immersion programmes. Interestingly, in line with the previous statements, Somers and Surmount (2011) and Cenoz et al. (2013) state that CLIL is equally used to teach regional and minority languages which are official in certain communities.

Despite the fact that CLIL is a language-diversity-oriented approach, the truth is that English has become the majority language most widely used in its implementation. As said above, according to Cenoz et al. (2013:16), CLIL is a *'well-recognised and useful construct for promoting L2/foreign language teaching'* (Cenoz et al. 2013:16). All these different

views on the question of whether to put different labels under the same umbrella or not has been a hot topic in the literature. Citing Dalton-Puffer et al. (2013),

*The words immersion and CLIL live the lives of words in natural languages: they have histories, migrate from one discourse to another, acquire connotations and generally have fuzzy boundaries.*

Generalising its conception to any type of bilingual immersion programme can result in an amalgamation of utterly different things. Putting minority language immersion programmes on a level with CLIL can become a sensitive issue, since the focus and goal of minority language learning is protecting and developing the language. Furthermore, minority language immersion programmes existed way before CLIL and were based on different methodological parameters as well as different educational scenarios. The CLIL approach is dual-focused (Marsh 2005) because it is about learning content through a foreign or additional language, which acts as a vehicle. The goal is complementing foreign language learning through extending the use of foreign language across the curriculum. On the other hand, minority language immersion programmes are language-focused and aim at the survival of the minority language. There should be a clear delineation between CLIL and other approaches so that its characterisation can be more straightforward.

As far as CLIL implementation is concerned, Pérez Cañado (2016b) raised the issue of self-selection, lack of homogeneity and elitism when it comes to forming CLIL groups. The truth is that, in the initial stages of CLIL, students enrolled in the different programmes through a selection process —which considered their results in the foreign language— or on a voluntary basis —out of their own motivation to learn (through) a foreign language—. This resulted in highly motivated groups of students with a good language competence showing huge differences in comparison to the non-CLIL groups. Quite a few research studies have shown CLIL students outperform non-CLIL counterparts regarding the foreign language, L1, content learning, etc. In most of them, comparability is affected by the lack of homogeneity in the groups (see sections 4.1., 4.2., 4.3., 4.4. and 4.5.). Nowadays, provision is different not only in the different countries but also in the different regions.

There are places in which CLIL, although still being experimental, has become school-focused. This means that it is the school that enrolls on a CLIL programme and, in doing so, all students have to take part in it (for instance, Galicia or Valencia in Spain). Conversely, CLIL has still a long way to go to become mainstream and still relies excessively on students' self-selection.

When considering CLIL research, in the course of the last couple of decades, existing research has been following the law of the pendulum regarding the beneficial effects of CLIL on language and content learning. From the initial enthusiastic views on CLIL effects (Marsh 2002; Coyle 2007; Coyle et al. 2010; Dalton-Puffer 2007; Dalton-Puffer & Smit 2007; Lasagabaster 2008; San Isidro 2009a, 2010; Calvo & San Isidro 2012; or Navés 2009), *'the pendulum has swung to the other extreme'* (quoting Pérez Cañado 2016b: 2) questioning the validity of the research conducted from an opposite perspective, based on the lack of homogeneity as well as on multifaceted problems in its implementation (Pérez Cañado 2012; Paran 2013; Bruton 2015; or Rumlich 2017). Pérez Cañado (2016b) identified the *'lacunae'*, pinpointed and classified a number of *'caveats and deficiencies'* in the existing literature:

- ◆ As to the samples, their homogeneity should be guaranteed (Dalton-Puffer et al. 2010);
- ◆ Consideration of variables such as motivation, type of school, English proficiency, etc.;
- ◆ Other dependent variables such as L1 and content knowledge should be considered too;
- ◆ Research design should be longitudinal as they are scarce (Lasagabaster and Ruiz de Zarobe 2010);
- ◆ CLIL and non-CLIL groups should be compared and contrasted;
- ◆ Combination of quantitative and qualitative methods (Madrid & Bueno 2005);
- ◆ Multiple triangulation;
- ◆ Statistical methodology.

These caveats have been taken into account in the design of our research project (see chapters 6 and 7), which is a mixed-methods longitudinal study comparing two groups of students (CLIL vs. non-CLIL) and considering a number of variables using triangulation and statistical methodology.

Mapping the review of the literature presents a significant challenge due to not only its multifaceted and variegated nature and factors such as the focus of the study but also the degree of comparability between the samples and their homogeneity or the instruments used. All of them affect the spectrum of validity and reliability. For the sake of later analysis of results, I have grouped and analysed research literature related to CLIL in five different topics corresponding to the five different sections:

- ◆ the impact of CLIL on stakeholders' perceptions, attitudes and motivations;
- ◆ the impact of CLIL on additional language learning;
- ◆ the impact of CLIL on L1;
- ◆ the impact of CLIL on content learning;
- ◆ and, finally, code-switching in CLIL.

The research literature conducted in the Galician context will be analysed separately, in chapter 5.

#### **4.1. The impact of CLIL on perceptions, attitudes and motivation**

As seen in section 2.3., one of the goals of this thesis is the triangulation-based analysis of students', families' and teachers' perceptions of language learning through measuring students' and families' attitudes and motivations as well as families' and teachers' opinions during the course of two years. In sections 2.3.2.1. and 2.3.2.2. I analysed the conceptualisation of attitudes and motivation as well as the components and variables of the attitudinal/motivational analysis.



Generalising researchers' findings regarding the views and beliefs certain groups hold about their own CLIL realities (Dalton-Puffer and Smit 2013: 549) is difficult, because 1) CLIL learning contexts are different, and 2) CLIL implementation varies depending on the socio-cultural settings as well as on the educational policies of the countries involved (Coyle 2008). However, regarding the benefits of CLIL implementation, according to Lasagabaster and Doiz (2015) researchers seem to agree that high levels of motivation are perceived among students: *'one of the most powerful findings of CLIL groups centers on increased motivation in both learners and teachers'* (Coyle 2006: 11, as cited in Lasagabaster & Doiz 2015). Similarly, according to Lorenzo et al. (2010), studies into CLIL stakeholders' perceptions seem to have garnered positive views as far as foreign language learning.

In this section I will focus on reviewing the research literature specifically dealing with the impact of CLIL on stakeholders' perceptions, attitudes and motivation.

Dalton-Puffer (2007, 2011) suggested that there seems to be insufficient research investigating students' perceptions on how they view their CLIL teachers' language problems and use of corrections in instruction. These concerns suggest that the supply, training and perceptions of CLIL teachers would also need to be a focus in research.

Seikkula-Leino's (2007) study on CLIL learners' affective performance and attitudes in Finland, revealed that, despite students enrolled on CLIL programmes being more motivated towards learning using a foreign language, they sometimes felt incompetent and inadequate in learning due to the complexities and difficulties of learning conceptually through a foreign language. Hence, Seikkula-Leino (2007: 338) claimed that *'learning CLIL can be so challenging that the maximal outcome of content learning is not always reached'* suggesting there is a need to consider student attitudes toward CLIL programmes.

Also in Finland, in Merisuo-Storm's (2006, 2007) studies, on comparing CLIL students and non-CLIL counterparts, the CLIL strands were found to hold more positive attitudes towards language learning than their peers.

By means of qualitative analyses at the primary level, the studies conducted by Romu and Sjöberg-Heino (1999) and Södergard (2006) revealed quite encouraging results with Finnish students showing positive attitudes, satisfaction and increased levels of confidence. Also within the realm of qualitative analysis, Mehisto and Asser (2007) conducted a study into stakeholders' perspective (school principals, teachers and families) in Estonia using semi-structured interviews, questionnaires and lesson observation. Results showed high levels of satisfaction, commitment and engagement in all stakeholders. In a similar fashion, Wiesemes' (2009) study on students and teachers in 8 schools in the United Kingdom revealed that CLIL enhanced motivation, although the lack of appropriate initial matching leads to question the findings.

In Austria, Ackerl (2007) used four types of lexical tests as well as questionnaires with learners and teachers involved in CLIL experiences. A greater intrinsic motivation of the CLIL students surfaced in the results together with teachers' satisfaction with CLIL practice.

Czura et al. (2009) analysed the outcomes resulting from a qualitative study on CLIL, based on classroom observation and interviews with students and teachers in Poland. Results revealed that teachers showed professional satisfaction as they felt more involved, committed and eager. On the other hand, students showed positive attitudes but complained about the low standard of content subjects, the traditional methodology used and the unsystematic code-switching in the classroom.

In Italy, Coonan (2007) used interviews, focus-group sessions and even teacher daily logs to analyse the perceptions of 33 secondary school teachers. Results showed that CLIL positively affected not only the way students learned content, but also their motivation and

their degree of attention in lessons. Also in Italy, Infante et al. (2009) interviewed 11 experienced CLIL teachers using questionnaires and follow-up telephone conversations dealing with their professional background. Results showed that teachers' views on CLIL implementation were positive on the grounds of its effectiveness and methodological advantages.

Pladevall-Ballester's (2015) study is undoubtedly very relevant to this thesis as it provides an overview of the students', CLIL teachers' and parents' perceptions after a year of CLIL implementation in five primary schools in Catalonia, elicited by means of opinion-based questionnaires and interviews. Results showed that children in this study were satisfied with the experience in general terms. Parents' perceptions were rather unrealistic as they were either too enthusiastic or showed that they were afraid that CLIL might be detrimental to the children's L1 or their content learning. Teachers' opinions offered a more realistic picture of what CLIL in primary school involves. Despite their general satisfaction with the experience and their enthusiasm and hard work, teachers highlighted their concerns and frustrations, mainly derived from the lack of institutional and peer support and lack of time.

Due to the nature and context of this thesis, I will focus now on research conducted in the Basque Country, due to 1) its similarities with the Galician context, and 2) the type of analyses carried out, in line with one of the focal areas of this dissertation. In the Basque Country a number of studies have shown evidence of successful CLIL (Alonso et al. 2008; Gallardo del Puerto et al. 2009; Lasagabaster 2008, 2009; Lasagabaster and Sierra 2009; Ruiz de Zarobe 2010), proving that: 1) it positively affects foreign language learning; 2) it is not detrimental to content learning; and 3) most importantly, due to its relation to this section, it fosters favourable attitudes towards trilingualism.

The effect of CLIL in students' motivation in secondary schools in the Basque Country has also been tackled in more recent studies (Sierra 2011; Lasagabaster 2011; and Doiz et al. 2014), all of them confirming pedagogical benefits of CLIL students when compared to non-CLIL with regard to their degree of motivation to learn English. Lasagabaster (2011)

revealed that CLIL students were more motivated in relation to the degree of interest, their instrumental motivation, their attitudes towards learning English at school and the effort they made (see section 2.3.2.2.). In Doiz et al.'s (2014) study, CLIL students showed more intrinsic motivation, instrumental orientation and interest in foreign languages and cultures (see section 2.3.2.2.).

A more recent research study conducted by Lasagabaster and Doiz (2015) shed new light on results on a longitudinal basis. In a similar fashion to previous studies, they analysed and compared the levels of motivation in CLIL and non-CLIL classes, this time in 5 secondary schools in the Basque Country. They used questionnaires using scales already used by Gardner (1985) and Schmidt and Watanabe (2001). Contrary to expectations, CLIL did not seem to have long-term positive effects on students' motivation towards English, and motivation was maintained in the non-CLIL cohorts. Conversely, motivation to learn subject matter was maintained in the CLIL group.

Literature review suggests some key points to consider:

1) Research studies have constantly shown that stakeholders involved in CLIL show positive views and attitudes as well as higher motivation regarding the foreign language. Although there is plenty of literature dealing with teachers' perceptions, there does, however, seem to be a need for research dealing with families' views and attitudes as well as with students' views and perceptions, not only in relation to the foreign language but also regarding other parameters: attitudes towards the learning situation, towards content learning, towards the methodology used, towards the teacher, etc.

2) Lasagabaster and Doiz's (2015) study revealed different results that do not tally with previous literature. Motivation towards the foreign language might not be sustained in the long term, and that is why the authors suggested the need for future research from a longitudinal qualitative perspective.

3) Existing literature seems to disregard the impact of CLIL on attitudes towards L1, something very important in communities with two co-official languages, in which one of those languages is a minority one (Lasagabaster 2009; Lasagabaster & Sierra 2009). This could open a niche for future research and I will deal with it in section 5.4. when dealing with research specifically related to the Galician context.

## **4.2. The impact of CLIL on additional language learning**

In our longitudinal study (see chapters 6 and 7) we measured students' performance in the foreign language —English— as well as in the other two languages —Spanish and Galician— through standardised tests in three different moments with a view to analysing the impact of CLIL on language learning and development. In this section, I will review literature devoted to analysing the impact of CLIL on students' competence in the foreign or additional language.

The CLIL approach is believed to improve foreign language competence without negatively affecting students' L1 or content learning (Lasagabaster & Ruiz de Zarobe 2010; Mehisto, Marsh & Frigols 2008). As said above in the introduction to this chapter, despite the fact that CLIL is a language-diversity-oriented approach, the truth is that English has become the majority language most widely used in its implementation. This could possibly be put down to the need for intercomprehension among the people living in the different Member States in the European Union, which has arguably made policy-makers prioritise it in the different educational systems.

The number of research studies on the impact of CLIL on foreign language proficiency is indisputably higher than the ones we find in relation to L1 or content learning. In general terms, CLIL students tend to outperform their non-CLIL counterparts (Dalton-Puffer 2011; Pérez Cañado 2012). The reasons for this might be explained by 1) the fact that CLIL students' exposure to the foreign language is invariably longer than their counterparts', as they attend CLIL lessons on top of the regular foreign language lessons (Merino & Lasagabaster 2015); and 2) the lack of initial matching in the samples as students usually

enrol on CLIL programmes voluntarily, i.e. they are highly motivated towards language learning and their competence in the foreign language is usually higher.

There are quite a few studies that prove that CLIL students outperform their non-CLIL counterparts. In Germany, Zydatiβ's (2007) research study, CLIL students showed significant differences regarding overall competence in the foreign language. The tests used focused on grammar, lexicon along with communicative and subject-related literacy. In Austria, Ackerl (2007) used lexical tests to measure vocabulary acquisition. Results showed that CLIL students outperformed their non-CLIL counterparts and that male learners did better than their female counterparts. Järvinen's research (1999, 2005) in Finland focused on the acquisition of subordination and relativisation in English. Despite homogeneity in the samples was not guaranteed, he claimed that the CLIL group outperformed their counterpart as they were able to produce more complex and accurate sentences. There are studies, however, that show no significant difference between CLIL and non-CLIL groups as far as global competence in the foreign language is concerned, such as the one conducted in Sweden by Airey (2004).

Spain makes an interesting case for research, considering the different socio-linguistic contexts in the different regions. For the sake of the analysis of the data in this research project, it is particularly interesting to focus on CLIL implementation in communities with two co-official languages, as I did in the previous section, in relation to stakeholders' attitudes (the Basque Country or Catalonia). In the Basque Country, for example, a number of studies have shown evidence of successful CLIL (Alonso et al. 2008; Gallardo del Puerto et al. 2009; Lasagabaster 2008, 2009; Ruiz de Zarobe 2010), proving that 1) it positively affects foreign language learning; 2) it is not detrimental for content learning; and 3) and it fosters favourable attitudes towards trilingualism.

Similarly, in Catalonia, in line with previous results, Navés and Victori (2010), in an outcome-related study, have shown positive effects of CLIL on general proficiency. Also in

Catalonia, another interesting study on CLIL students' written production was conducted by Roquet and Pérez-Vidal in 2015 (see below).

Moving from general competence results onto more specific ones, research has shown, that results vary depending on the different skills. Admiraal et al.'s (2006) study in the Netherlands and Roquet's (2011) in Spain stated that differences are not significant in all language skills.

Regarding speaking, CLIL students do significantly better than their non-CLIL counterparts (Admiraal et al. 2006; Lasagabaster 2008, 2011; Lorenzo et al. 2010; San Isidro 2010), which might be explained by the fact that CLIL students play a more active role when using a foreign language and tend to do better when negotiating meaning (Mariotti 2006).

As far as listening is concerned, results are not as categorical. Some studies have shown positive effects (Lasagabaster 2008, 2011; Lorenzo et al. 2010; San Isidro 2010; Serra 2007), but we find studies showing no significant difference between CLIL students and their non-CLIL counterparts (Navés 2011). Stotz and Meuter's (2003) study on the effects of oral competence (listening and speaking) with primary students showed rather inconclusive results.

As to reading, studies —although scarce— have shown positive results (Admiraal et al. 2006; Lasagabaster 2008). Research showing evidence on listening and reading seems to be lagging behind as far as the number of publications is concerned.

As regards writing, according to Merino and Lasagabaster (2015), CLIL students usually show more lexical and morphosyntactic resources as well as a greater pragmatic awareness. These skills could explain the very positive results found in the research literature (Lasagabaster 2008; Lorenzo et al. 2010; Dalton-Puffer 2011). In Catalonia, Rocket & Pérez-Vidal (2015) analysed the differential effects of two learning contexts, formal instruction and content and language integrated learning, on the written production

skills of intermediate-level Catalan Spanish adolescent learners of English as a foreign language. Superiority of the CLIL cohort was not confirmed, despite improvement in the case of CLIL group is shown. Results were only significant in the domain of accuracy.

Since the nature of this study is longitudinal, it is instrumental to gain an insight into the nature of results in the existing empirical research studies. In general, results elicited in this type of studies are less abundant and they have shown the same trend as the ones obtained in cross-sectional studies (Dalton-Puffer and Smit 2013). Longitudinal studies have shown that CLIL students outperform their non-CLIL counterparts (Grisaleña et al. 2009; Ruiz de Zarobe 2008; Sylvén 2010).

In Sweden, Sylvén (2004) gauged the effects of CLIL on incidental vocabulary acquisition through lexicon tests over the course of two years, showing that CLIL students outperformed their peers.

Admiraal et al. (2006) conducted a longitudinal study with secondary education students who had been enrolled on CLIL programmes through English for four years. Results were positive in the oral and reading skills, and no negative effects were found either on L1 or content learning. Nevertheless, the study lacked initially homogeneous cohorts and statistical analysis.

A more recent study related to, and relevant for one of the focal areas of this thesis — impact of CLIL on the three curricular languages— is the one conducted by Merino and Lasagabaster (2015), a longitudinal research study with 285 lower secondary students (CLIL vs. non-CLIL). Two test rounds —T1 and T2— were delivered at the end of the school years 2010-2011 and 2011-2012. The students' competence in English, Basque and Spanish was assessed and the four language skills were taken into account. Results in the foreign language did not agree with previous research. CLIL students, with an initially higher average score, as expected, outperformed their counterparts. Nonetheless, both groups showed a similar improvement from T1 to T2. Authors put this down to the



time factor, i.e. to the fact that the study was longitudinal as distinct from the studies they analysed previously —cross-sectional—. They stated that, since CLIL success is dependent on the number of years of implementation, longitudinal studies must stretch over longer periods of time. This tallies with the current trend of researchers in Germany who claim for comprehensive longitudinal model-based evaluations as well as a perfect control of the variables when conducting research on CLIL programmes (Rumlich 2016). Regarding results in Basque, they found no detrimental effect. Despite the fears shown in previous literature (Cenoz 2009, Lasagabaster & Sierra 2009) about the possible negative effect resulting from minimising exposure to Basque, development is similar in both cohorts. Students' competence in the third language analysed, Spanish, also seemed unaffected, in line with previous literature (Admiraal et al. 2006; Serra 2007).

In general, the studies reviewed show positive results regarding the impact of CLIL on foreign language learning. However, the analysis of the literature seems to suggest the need for longitudinal studies stretching over longer periods of time.

Some of the studies reviewed above analyse effects of CLIL on L1 and content learning besides the foreign language. I will now review literature dealing with the effect on L1 or environmental languages, which in our research project were Galician and Spanish.

### **4.3. The impact of CLIL on L1: interdependence and translanguaging**

As seen in section 2.3.3., language learning is inextricably connected to the relationship between, and influence of the different languages, above all, in a multilingual setting such as the one I used for research. A number of aspects related to learners' first and second languages influence and shape their additional language learning. Those aspects include the linguistic distance between the different languages, the learners' level of proficiency in their first language(s) and their knowledge of the additional language, the dialect(s) used, the status of the students' language in the community —majority vs. minority language— and the societal attitudes towards the learners' first language (see section 4.1. and chapter 5).

In multilingual education in general, and CLIL in particular, two or more languages interact in a person's mind, influencing each other both positively and negatively. The languages are not separate units but interlinked in the brain, where transfer from one language to the other can take place (Cook 2003). Cummins (1979) postulated the linguistic interdependence hypothesis, which states that in bilingual development, language and literacy skills can be transferred from one language to another.

In line with the interdependence hypothesis above, in CLIL it is important for research to focus not only on the impact on the foreign language learning but also on its effect on and relationship with the environmental language(s). According to Pérez Cañado (2012), *'the L1 and content knowledge of the subjects taught through CLIL should be worked in as independent variables'*. However, the effects of CLIL on L1 have not been so widely researched possibly due to the fact that researchers have been more interested in analysing results regarding the vehicular language in CLIL implementation. In general, result-oriented studies are scarce and have found no remarkable differences (Admiraal et al. 2006; Serra 2007; Sylvén 2010).

Merisuo-Storm's (2006, 2007) longitudinal research in Finland compared L1 literacy skills of CLIL students and their non-CLIL counterparts. Results showed no statistically significant differences between cohorts.

As seen in section 4.2., Admiraal et al. (2006) conducted a longitudinal study in the Netherlands with secondary education students who had been enrolled on CLIL programmes through English for four years. Results were positive regarding the foreign language, and no negative effects were found either in L1. The study lacked, however, initially homogeneous cohorts and statistical analysis.

In Finland, Bergroth (2006) studied the effects of CLIL on L1 (Finnish), L2 (Swedish) and L3 (English) as well as content learning (Mathematics). Regarding the effect on L1, the

author concluded that L1 was not threatened by dual-focused education. Also in Finland, Seikkula-Leino (2007) analysed the impact of CLIL on students' L1 and content learning. Although the CLIL group outstripped their peers, results were not significantly different.

As seen in section 4.2., Merino and Lasagabaster (2015) conducted a longitudinal research study measuring the students' global competence in English, Basque and Spanish, considering the four language skills. Regarding results in Basque, they found no detrimental effect. Despite the fears shown in previous literature (Cenoz 2009, Lasagabaster & Sierra 2009) about the possible negative effect related to limiting exposure to Basque, development resulted similar in both cohorts. Interestingly, students' competence in Spanish seemed to be unaffected as well, in line with previous literature (Admiraal et al. 2006; Serra 2007).

All the studies mentioned so far are related to the impact of CLIL on L1 (as well as on the foreign language dealt with in the previous section) from the perspective of language development, but not from the perspective of the development of the language to express knowledge or content. A different but really fascinating research topic in the existing literature is, on the one hand, the impact of CLIL on the language(s) used to express content —academic language— and, on the other hand, the question as to how to assess that language. A language test does not usually address content-related language. Gablasova (2014) mentioned four common different ways of assessing bilingually-educated students. The first one is to assess students in L2, which means not only that students do not have to transfer their knowledge into their L1, but also that teachers cannot determine if it is the lack of knowledge or the low level of L2 that prevents them from demonstrating their knowledge (Hofmannová et al. 2008; Lindholm-Leary and Borsato 2006; Short 1993). The second one has to do with assessing students in their L1. This creates difficulties for them, especially when looking for vocabulary (Abedi, Hofsetter and Lord 2004; Airey 2010). The third possibility is translanguaging (see section 2.3.4.2.), i.e. using a mixture of both languages to make content knowledge available to students

(García 2009). Finally, testing in both languages could be an option (cf. Airey 2010; Hincks 2010; Järvinen 2010; Stohler 2006).

Gablasova's (2014) study took into account four different aspects of formal academic language: (a) accuracy; (b) fluency; (c) appropriate academic format; and (d) appropriate vocabulary, and compared the results between two groups of students —L2-instructed students and L1-instructed students— who had gained the same knowledge. Both groups were balanced regarding proficiency. Although testing took place in L1 (Slovak) and L2, her conclusions were more focused on L1. Results showed that CLIL and non-CLIL students performed equally well in L1 in relation to formal definitions, accuracy and speech rate. But CLIL students underperformed with respect to the proportion of informative speech and lexical choice. The difference between L1 and L2 answers in the CLIL group might indicate problems in transferring literacy skills from one language to another. According to Gablasova, additional studies are needed for a better understanding of CLIL and its impact on academic language and the expression of knowledge.

Although the effect of CLIL on L1 is under-researched, the existing literature seems to indicate, in general terms, that CLIL does not have a detrimental effect. Some research studies based on teachers' perceptions agree with this view or even show more positive considerations towards CLIL impact on L1 (Barreiro & San Isidro 2009; Calvo & San Isidro 2012). However, some critical voices (Lorenzo et al. 2010) point out that some teachers view CLIL as a menace to L1.

All in all, more outcome-oriented longitudinal research is needed so as to elicit solid analyses. As seen in section 4.2., as a focal area of this thesis, besides measuring foreign language performance and content learning, I analysed students' competence in Spanish and Galician through standardised tests in three different moments. This measurement was conducted with a view to analysing the impact of CLIL on global language learning and development, in line with the interdependence hypothesis mentioned above (see chapters 6 and 7).

#### 4.4. The impact of CLIL on content learning

As seen in the previous section, regarding research *'the L1 and content knowledge of the subjects taught through CLIL should be worked in as independent variables'* (Pérez Cañado 2012). The analysis of content-learning together with language-related results is a crucial part of this research project.

Several studies carried out in different European countries and regions have shown that there are no differences between CLIL and non-CLIL students. In Germany, Wode (1999) analysed results in History and Geography using statistics. No significant differences were found as CLIL and non-CLIL cohorts performed similarly content-wise. In Finland, Jäppinen's (2006) longitudinal study in Finland examined the effects of CLIL on thinking and content-learning processes with more than 600 students from 2001 to 2003. The assessment was carried out in the students' L1 through four test rounds. Results showed no differences between both groups. This suggests that both cohorts underwent a similar evolution. Conversely, younger CLIL learners revealed some cognitive development difficulties in more abstract scientific topics. These difficulties were not found in the eldest CLIL participants, among whom even better results than non-CLIL students were sometimes found. This led the author to consider the link between age and content in CLIL:

*This suggests that, in the beginning, in CLIL environments, teachers have to consider very carefully the contents to be taught through a foreign language with younger learners. They have to make a choice between what is vital to be taught in the mother tongue and what is wise to teach through the foreign language. With young learners, it would be good if the topics taught through a foreign language related mainly to the immediate environment of the learner. Later, on the other hand, when thinking processes have developed, the use of a foreign language as a medium of learning seems to be an advantage in cognitional development. (Jäppinen 2005: 163, as cited in Merino 2016)*

As mentioned in the previous sections, Admiraal et al. (2016) conducted a longitudinal study in the Netherlands with secondary education students who had been enrolled on CLIL programmes through English for four years. Results were positive in the oral and reading skills, and no negative effects were found in L1. With regard to content learning, they found no negative effects either. Nevertheless, and as mentioned above, the study lacked initially homogeneous cohorts and statistical analysis.

In Finland, Seikkula-Leino (2007) analysed the impact of CLIL on students' L1 and content learning. Although the CLIL group outstripped their peers, results were not significantly different.

Stohler (2006) used videotaped lessons for analysis of content learning in Switzerland and found no statistically significant differences between CLIL and non-CLIL students, although the samples used were too heterogeneous.

Regarding studies showing that CLIL proves positive when learning content, the research conducted by the Ikastola network, a network of Basque-medium schools (IEEIT 2003, as cited in Merino 2016) in the Basque Country, showed that CLIL students attained higher results in content-based exams in both Basque and English.

In Serra's (2007) longitudinal study in Switzerland, CLIL students outperformed their mainstream counterparts in Mathematics. Similarly, in Zydati's (2007, 2009) research studies in Germany, CLIL students show significant differences regarding subject-related literacy and content learning, respectively.

Van de Craen et al. (2007b) contrasted learning of Mathematics in CLIL and non-CLIL students in Belgium. CLIL students outstripped their counterparts in the overall results. The authors put it down to CLIL students showing a greater cognitive development.

A recent study conducted in Spain by Fernández-Sanjurjo et al. (2017) does not tally with the previous literature. In their study, the main objective was to assess if students learning Science through English would outperform their non-CLIL counterparts as regards content acquisition. The paper analysed a sample of 709 6th grade Primary Education students enrolled in public schools in the Principality of Asturias (Spain). A test to assess students' knowledge in Science and a context questionnaire (measuring participants' socio-economic status) were designed. The main finding is that non-CLIL students performed slightly better than the CLIL cohorts. The authors claimed that the structure of bilingual programmes may need revisiting, as the poorer performance of the participants in the study may indicate that the integration of content and language is not being fully achieved.

Considering literature dealing with stakeholders' opinions and perceptions, several studies carried out in different European countries and regions have shown that 1) there are no differences between CLIL and non-CLIL students when it comes to learning content (Mariotti 2006; Svenhardt et al. 2007) and 2) CLIL has a positive effect (Coonan 2007; Grisaleña et al. 2009; Barreiro & San Isidro 2009; Lorenzo et al. 2010).

In summary, considering the existing research literature related to the impact of CLIL on content learning, both outcome-oriented and opinion-elicitation studies seem to suggest that CLIL either makes no impact on the learning of subject matter or shows a positive effect. Only one study so far —Fernández-Sanjurjo et al. 2017— has shown negative results as regards content learning, possibly because the model analysed lacked the collaboration characteristic of CLIL environments, which is a *sine qua non* for CLIL success (Pavón et al. 2014), as CLIL subjects in primary education are usually taught by the language specialists to the detriment of content.

All in all, the number of studies on content learning seem to lag behind if we consider research on attitudes or foreign language learning. Solid longitudinal test-based research seems to be needed to be able to reach definitive conclusions.

## 4.5. Code-switching in CLIL

A different and not less important focus of this dissertation is the analysis of data related to students' oral code-switching elicited from monitoring integrated tasks during two years. Although there are quite a few research papers dealing with code-switching regarding teacher-student interaction or teachers' use of L1 in the CLIL environment (Lasagabaster 2013, 2017; Gierlinger 2015; Lin 2015), I will focus on the research literature dealing with students' code-switching.

As explained in section 2.3.4.2., code-switching is usually described as a bilingualism-related activity in which more than one language —most typically the learner's' first language and an additional language— are used either *intrasententially* or *intersententially* (Cook 2001; García 2009). Traditionally, code-switching has not been positively appreciated in additional or foreign language classrooms where the learners' target language and first language are separate and divided. This consideration might be explained by the general belief that switching from one language to another is the mere result of having a partial or incomplete proficiency of the target language (Reyes 2004).

Levine (2011: 23-29) suggested an ecological perspective, which emphasises a holistic framework to language learning, which tallies with the conception of language learning found in the Common European Framework of Reference for Languages (Council of Europe 2001a). This perspective considers that language learning should not be taken as a series of isolated components but as a global approach, which considers both the setting and the context. In the process, factors leading to code-switching and code choice have to be taken into consideration. Levine (2011: 33) also suggested that foreign language learners should be helped to develop an awareness of when and why to code-switch since code-switching is a normal creative aspect in a bilingual classroom. Levine (2011: 7) underlined the fact that the classroom is part of the *'real world'* since it contributes to an individual learner's maintenance of his/her own sense of identity and cultural belonging through the use of L1. Therefore, he concluded that code-switching offers an authentic communication resource in the school social interaction arena.



Over the last decades there has been a great interest in code-switching in the foreign language classroom. The most prominent code-switching classroom research has been carried out in the immersion programmes of North America and Canada with a view to 1) finding out the role code-switching has in the classroom, and 2) finding out when, by whom, how often and how much code-switching is used as well as what the ratio between L1 and L2 is (Mesthrie et al. 2009; Muysken 2001; Dagenais 2008; Levine 2011; Lin 2013).

Conversely, when dealing with this topic in the European context, in relation to CLIL and multilingual settings, the interest above seems to be different, given that research has focused on other topics (the ones dealt with in the previous sections in this chapter). Cenoz and Gorter (2011) pointed out that multilingual practices in the classroom have been under-researched. Lasagabaster (2013) claimed that research on these multilingual practices in CLIL environments is almost non-existent. A CLIL classroom is a multilingual setting where learners usually share at least one common language. Therefore, according to Pérez-Vidal (2002), when facing highly demanding tasks, it is natural for students to use the whole of their linguistic repertoire, which includes their knowledge of L1.

Marsh et al. (1999) considered it is crucial to analyse how different languages can be used within the classroom. According to these authors, code-switching could be considered a key pedagogical skill. In line with this, Pérez-Vidal (2002) advocated students' code-switching as a normal feature of the CLIL classroom.

Existing literature has been mostly related to teachers' use of L1 in CLIL lessons, because teachers' code-switching makes an important case for study as it is related to methodology and to the ecological translanguaging approach to teaching. However, contrary to this, the number of studies addressing CLIL teachers' code-switching use are thin on the ground and mostly difficult to compare (Coonan 2007; Costa 2011; Grandinetti et al. 2013; Lasagabaster 2013; Llinares and Whittaker 2009; Méndez & Pavón 2012; Nikula 2010; Wannagat 2007; Viebrock 2012). An overview of them reveals the following features:

- ◆ Firstly, the majority of the studies base teachers' beliefs on code-switching on qualitative interviews or questionnaires without any reference to classroom data, and therefore may run the risk of presenting a perspective whose results do not adequately portray the complexity of the classroom code-switching context (Lasagabaster 2013; Méndez & Pavón 2012; Viebrock 2012).
- ◆ Secondly, some studies, although based on a mixed-methods approach, investigate teachers' language use without making their code-switching a major issue (Nikula 2010).
- ◆ Lastly, there are other studies that, although providing a considerable amount of code-switching instances, do not provide any deeper or systematic significance to this phenomenon (Grandinetti et al. 2013).

Gierlinger (2007) observed that the use of L1 in CLIL settings varied considerably and depended on teachers' assessment of the classroom context. The author listed some facts regarding the use of the L1 and L2 in CLIL classes:

- ◆ The use of L1 varied considerably and depended on teachers' assessment of the classroom context. There was no fixed rule as to how much the L1 should be used.
- ◆ L1 was used as a clarification tool to avoid misunderstandings and to gain a better understanding of the content. L1 and L2 were both used to achieve the best conceptual match for their students.
- ◆ L1 was considered an important supportive means for beginners.
- ◆ L1 was used to give a summary or to point out the major aspects of a topic.

- ◆ L1 was occasionally used for instructions or disciplinary measures.

Similarly, Costa (2009) observed that teachers resorted to L1 as a better way for them to explain the rules. In a different study, Coonan (2007) concluded that there were no clear-cut rules concerning code-switching between L1 and L2 in CLIL environments.

All in all, what is almost impossible to find is research literature tackling students' code-switching in CLIL environments through classroom data, which is exactly the third focal area in my dissertation. I will comment on two studies that seem quite relevant to the subject of this dissertation: Redinger (2010) and Gil et al. (2012).

Redinger (2010) analysed code-switching in teachers and students in a multilingual setting —several schools in Luxembourg—. Different languages were used for different subjects. The student-related sample consisted of 8 girls and 13 boys. The majority of the students were Luxembourgish nationals and the other nationalities represented in the class were Serbian (2), Macedonian (1), Russian (1), Italian (1), German (1) and French (1). Redinger's pragmatic analysis of teacher-initiated and student-initiated code-switching revealed that language choice inside the classroom was heavily influenced by the context as students and teachers code-switched so as to achieve various context-related goals such as interpersonal relations, clarifying curriculum content and/or managing classroom discourse. Concerning students' language behaviour, results showed it was linked to their teachers' level of tolerance towards classroom code-switching. The analysis of naturally-occurring classroom interactions revealed that students not only resorted considerably more to Luxembourgish in lessons taught by high-tolerance teachers but also engaged more extensively in classroom interactions.

On the other hand, Gil et al. (2012) studied the purposes for which the L1 and L2 were used orally by students and teachers in a mainstream CLIL secondary education context —Technology in English— compared to foreign language instruction in the Balearic Islands

(Spain). Data were gathered using questionnaires addressed to students and teachers, oral interviews to instructors and observations of class sessions. The findings showed some differences in the languages chosen to speak according to pedagogical functions and real-life functions. Results showed that the foreign language was much more used for pedagogical functions, whereas L1 was more resorted to with real-life functions, especially in the case of the students. Moreover, both teachers and students made a greater use of the foreign language for expressing specialised subject-matter lexicon, even when speaking in the L1. In CLIL lessons there were more instances of oral code-switching by both the teacher and the pupils, possibly due to the greater difficulty in coping with content in English.

The almost non-existent research literature on students' code-switching in CLIL environments through the use of classroom data makes it almost impossible to draw some conclusions about the impact of CLIL on classroom code-switching, but it makes it clear that it must be a niche research should fill. Analysing how and how much CLIL students resort to code-switching can be a variable that researchers should make use of in order to gain a deeper insight into the effect of CLIL on language learning and development.

## 4.6. Conclusions

In this chapter, I have mapped and reviewed the research literature related to CLIL by means of grouping the different studies into five different topics which are relevant to this thesis. Those five topics correspond to the five different sections:

- ◆ the impact of CLIL on stakeholders' perceptions, attitudes and motivations;
- ◆ the impact of CLIL on additional language learning;
- ◆ the impact of CLIL on L1;
- ◆ the impact of CLIL on content learning;
- ◆ and, finally, code-switching in CLIL.

The main conclusions we can draw from the existing research literature could be outlined as follows:

- ◆ Considering the impact of CLIL on stakeholders' perceptions, attitudes and motivations, I have come across three important questions. Firstly, research studies show that stakeholders involved in CLIL show positive views and attitudes as well as higher motivation regarding the foreign language. Although there is plenty of literature dealing with teachers' perceptions, there does, however, seem to be a need for research dealing with families' views and attitudes as well as with students' views and perceptions, not only in relation to the foreign language but also regarding other parameters: attitudes towards the learning situation, towards content learning, towards the methodology used, etc. Secondly, Lasagabaster and Doiz's (2015) study has revealed different results that do not tally with previous literature. Motivation towards the foreign language might not be sustained in the long term, and that is why the authors suggest the need for future research from a longitudinal qualitative perspective. And finally, existing literature seems to disregard the impact of CLIL on attitudes towards L1, something very important in communities with two co-official languages, in which one of those languages is a minority one. This could open a niche for future research and I will deal with it in section 5.4. when tackling research specifically related to the Galician context.
- ◆ As regards the impact of CLIL on additional language learning, in general, the studies reviewed show positive results regarding the impact of CLIL on foreign language learning. However, the analysis of the literature seems to suggest the need for longitudinal studies stretching over longer periods of time.
- ◆ Concerning the impact of CLIL on L1, although it is under-researched, the existing literature seems to indicate, in general terms, that CLIL does not have a detrimental effect on L1. Some research studies based on teachers' perceptions agree with this view or even show more positive considerations towards CLIL impact on L1 (Barreiro & San Isidro 2009; Calvo & San Isidro 2012). However, some critical voices (Lorenzo et al.

2010) point out that some teachers view CLIL as a menace to L1. All in all, more outcome-oriented longitudinal research is needed so as to elicit solid analyses.

- ◆ Regarding the impact of CLIL on content learning, both outcome-oriented and opinion-based studies seem to suggest that CLIL either makes no impact on the learning of subject matter or shows a positive effect. Only one study —Fernández-Sanjurjo et al. 2017— has shown negative results as regards content learning. The model analysed in this study is characterised by lacking the collaboration characteristic of CLIL environments, which is a *sine qua non* for CLIL success (Pavón et al. 2014), as CLIL subjects in primary education are usually taught by the language specialists to the detriment of content. However, the number of studies on content learning seem to lag behind if we consider research on attitudes or foreign language learning. Solid longitudinal test-based research seems to be needed to be able to reach definitive conclusions.
  
- ◆ As to code-switching in CLIL environments, the almost non-existent research literature on students' code-switching through the use of classroom data makes it almost impossible to draw some conclusions about the impact of CLIL on classroom code-switching, but it makes it clear that it must be a niche research should fill. Analysing how and how much CLIL students resort to code-switching can be a variable researchers should make use of to gain a deeper insight into the effect of CLIL on language learning and development.

I have deliberately left the analysis of the limited and insufficient research literature conducted in the Galician context for chapter 5 so as to link the setting of the context to the design of our research.

## CHAPTER 5: SETTING THE CONTEXT

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### 5.1. Language Policies in the European Union

Studies on bilingualism or bilingual education programmes are closely connected to the question of language policy and planning, as is the object of this dissertation. Language policy can be defined as a complex system of activities which operate on both the language level as well as the political and social levels, i.e. it is related to planning language status and learning. Language planning as a professional field in terms of policy-making and academic bibliography is relatively new. Its main contribution is the understanding of the role of languages as instrumental in building national identities. Ruiz (1990: 13) defined it as *'the organised search for solutions to social language problems'*. Wright (2007) enumerated three aspects which underpin its conception:

- ◆ *how languages are used as a principle for organisation and as a driving force in building national identities;*
- ◆ *what is happening as a consequence of the globalisation process;*
- ◆ *and the need for protecting minority languages.*

These three aspects show how complex the influence of language policy is on both nations and individuals. It is only by observing language policy-making in terms of its role in identity-building, globalisation and protection of minority languages that we can realise the complexity of preserving social stability on the part of governments when they design language policies.

Although historically nations have used —and some still do— language policies to favour an official language at the expense of others, the globalisation process taking place in our present-day world has made some countries design language policies aiming to protect and foster regional and minority languages. Currently, preservation of cultural and language diversity has become a top-priority question for many writers, scientists, artists or

politicians. According to UNESCO, half of the 6.800 languages now spoken in the world will disappear in the course of the present century, due to a diverse range of factors such as the number of speakers in a speech community, geographical dispersion or the socio-economic weight of speech communities. And it is the design of language policies that can mitigate or exacerbate the above-mentioned disappearance process.

Furthermore, globalisation is opening a process of inexorable integration of markets, nations and technology (Friedman 1999). Nonetheless, the process is not new and has been taking place for a few decades. What is new is the degree of global contact between the different languages and cultures. Through the vertiginous technological advance, the meaning of language policy has turned into a synonym for the economic and cultural relationship among people. We are now living in a world that, despite the walls some politicians seem to be willing to build, is seeing its borders fall down and is experimenting with the creation of an intricate network system inevitably leading us towards the so-called global conscience and to the question: will our Tower of Babel give way to a global language or, on the contrary, will language policy design in the different countries protect and preserve their own languages?

Interestingly, Tsuda (1994, 2008) presented two different conceptions or paradigms currently existing in relation to language policies :

- a) The widespread use of English as a global and international language and as a language for science or technology. This paradigm could pave the way for ideological globalisation and internationalisation, monolingualism and homogeneous world culture.
  
- b) Opposed to the previous conception emerges what Tsuda calls the paradigm of the ecology of languages, comprising respect for human rights, equality in communication, plurilingualism and language and culture preservation.



It is within the scope of the second conception that we can place the language policy with which the European Union intends to overcome the linguistic and cultural barrier existing among the different Member States. This multilingual and multicultural situation justifies the interest in promoting language learning and language diversity, an interest that has resulted in the consideration of the question of language policy and planning as a key point in the European Union agenda.

From the 1990s, under the shield of the European Union, the Council of Europe has been particularly active in international language planning. Among its aims are the protection and promotion of regional or minority languages. The *European Charter for Regional or Minority Languages* is an excellent example of language policy and planning intervention at a supra-national level (Council of Europe 1992). Interestingly, in this document, education is said to play a major role in the promotion and protection of regional and minority languages.

Developing every individual's language repertoire (Spolsky 2004: 55) —the so-called *plurilingual* competence (Council of Europe 2001a)— and highlighting the social value of language diversity has been at the core of the Council of Europe's language policy. Multilingual (*plurilingual*) education challenges monolingual attitudes and embraces all types of language learning, ranging from L1 and language(s) of schooling to foreign languages, regional and minority languages. The activities of the Council of Europe demonstrate the renewed interest in language policy and planning. Despite the fact that this view moves away from nationalist monolingual ideologies and their emphasis is on multilingualism, Wright (2007: 170) highlights that the Charter for Regional or Minority Languages

*relies on traditional nation-building strategies, promoting the use of a language in relations between the citizen and state institutions and as the medium of education and the media to preserve or revitalize it.*

These developments show that, although the focus of language policies and planning have shifted from monolingualism to multilingualism in recent years, education remains one of the principal domains where language planners ultimately manage, and to some degree control, language use and language attitudes —the subject of this thesis—. By and large, the maintenance of regional, and minority languages constitutes a major aim of language policy in Europe.

Nonetheless, when considering the fostering of plurilingual competence, another issue, which is as crucial as language maintenance, comes to the fore: intercomprehension among people from different countries. This dual focus of European language policies has made an indisputable impact on education, which has embraced multilingualism and has turned it into one of the cornerstones of the European Union policy.

Policy targeting multilingual education has resulted in a number of publications that have set the roadmap for its development in the different countries. The European Commission's *White Paper on Education and Training*, which came to light in 1995 (European Commission 1995), raised the key issue that language policies of every Member State should include the 1+2 formula (Marsh 2002; Pérez-Vidal 2008), i.e. every European citizen should master two other languages in addition to their mother tongue. Provision-wise, the *White Paper* paved the way and, in 2001, made the Council of Europe's focus on the role of education in language materialise in the creation and publication of the *Common European Framework of Reference for Languages* —CEFR—, a document whose primary goal was setting an international standard for describing language ability. The same year, the *European Language Portfolio* (ELP) was published, allowing language students to record their language skills and cultural experiences (Council of Europe 2001b). In 2003, the document *Promoting Language Learning and Linguistic Diversity: An Action Plan 2004-2006* was released (Commission of the European Communities 2003). This plan stressed the importance of life-long language learning and included different types of language learners (e.g. adults, students in higher education institutions and learners with special needs). In 2005, the document *A New Framework*

*Strategy for Multilingualism* was published (Commission of the European Communities 2005), which was considered to be ‘*the first step towards promoting multilingualism in a wider context*’ (Commission of the European Communities 2008a: 4). In 2008, two documents on multilingualism deserve to be mentioned: *An Inventory of Community Actions in the Field of Multilingualism and Results of the Online Public Consultation*, a staff working paper that accompanies *Multilingualism: an asset for Europe and a shared commitment* (Commission of the European Communities 2008a, 2008b). While the latter set out the policy approach to multilingualism, the former created a framework by mapping out the courses of action taken in this field by the various Commission departments, paying particular attention to cross-cutting aspects of multilingualism. With a view to adapting funding to the new circumstances, the *Plan 2004-2006* mentioned above was later changed into *The European Lifelong Learning Programme 2007-2013* (European Commission 2006) and *Erasmus+ 2014-2020* (European Commission 2013) aiming to support multilingualism through bringing the various European education and training initiatives under a single umbrella. Erasmus+ is linked to the document *Strategic framework - Education & Training 2020* (European Commission 2009), which sets the main goals for education. The EU’s endeavours in terms of policy and funding make sense in the light of its firm commitment to multilingual education.

Most European educational systems are now giving increasing importance to language learning and, at a steady pace, plurilingualism seems to be making its way through. Besides policies protecting minority languages, early foreign language learning has become commonplace in most of the Member States, as has CLIL. The European Union resolutely tries to keep the balance between two fundamental needs. On the one hand, the fostering of intercomprehension and, on the other, the protection and preservation of languages at a disadvantage.

## 5.2. Spanish Challenges towards Multilingualism

Language policies carried out in multilingual Spain as a whole and in its constituent bilingual autonomous communities —i.e. those where another language besides Spanish is official— merit special attention in order to understand the context of this research study. Throughout the last three decades, since the respective autonomous institutions were created, a wide range of language policies have been implemented. The particularities of these policies are concerned with specific sociolinguistic contexts, the civic and political resources engaged in implementing them, and the diverse historical and ideological backgrounds the issue of language has in every place. Spain makes a very interesting case for study not only due to its complexity but also because it allows us to reflect on the interaction between the law and the changing political contexts at both the local and national levels. In other words, the existence of a common provision versus diverse regional statutes makes us realise the contrasting historical and sociolinguistic backgrounds at each of the regions,

Spanish is the official language of the country, but the issue of language policy is an important one in Spain by virtue of the recognition of other languages as co-official both in the Constitution of 1978 and in the regional statutes of 6 communities: Catalonia, the Basque Country, Galicia, the Balearic Islands, Valencia and Navarre. In these regions, the local language and Spanish coexist as official languages and a system of bilingual education operates. This recognition is the keystone of Spanish linguistic and cultural diversity. In the last couple of decades, Spain has been facing the challenge of combining this preservation-focused language policy —aimed at the use and the standardisation of minority languages— with the new needs related to multilingualism. This is the reason for research in the bilingual regions to be still direly needed so as to analyse the impact of CLIL on attitudes towards, and use of the other languages (Doiz, Lasagabaster & Sierra 2014).

I will now focus on just giving a general overview of CLIL implementation in the different regions of Spain with a view to both gaining an insight into its variegated picture and transitioning into the Galician context in the next section.

As regards CLIL in Spain, it started being implemented by the end of the 1990s with no national provision and through different directives in both the monolingual and bilingual regions. Its exponential growth and the massive uptake on the part of schools and students has made Spain become one of the leading countries in both CLIL implementation and practice given the awareness of the importance that learning foreign languages has in a globalised society (Coyle 2010). CLIL has become one of the cornerstones to both support multilingualism and enhance the learning of foreign languages. Nonetheless, the overall picture is quite varied as each region can regulate and design (Guillamón-Suesta & Renau 2015) its own provision based on its needs and interests, provided that it complies with the requirements in the legal framework set by the state educational law (Lasagabaster & Ruiz de Zarobe 2010).

One of the earliest undertakings to introduce CLIL in Spain was the creation of the Bilingual and Bicultural Project by the Spanish Ministry of Education and Science together with the British Council back in 1996, which was based on an integrated English and Spanish curriculum (Coba Arango 2010). It started in Madrid, but it was later extended to other regions. This pilot experience was considered to be the starting point and, possibly, the triggering effect for independent CLIL programmes in the different Spanish regions. At the moment it co-exists with the CLIL programmes of the different education departments in non-bilingual communities.

As regards regions with two co-official languages, Catalonia can be considered as one of the pioneering regions to implement CLIL in public schools throughout the *Orator Project and the Foreign Language Experimental Plan*, which took place between 1999-2008 (Navés & Victori, 2010). In Catalonia, Catalan, the language of instruction, together with Spanish, are the majority languages, and English is taught as the main foreign language in

mainstream education, with the recent introduction of CLIL programmes in some schools (Roquet & Pérez-Vidal 2015).

The Basque Country, more relevant to our research study due to its arguable similarities to the Galician model (see section 5.3.) has also made huge efforts in order to combine English, Basque and Spanish in schools. According to Lasagabaster and Ruiz de Zarobe (2010), the provision approved by the Basque government to encourage multilingualism towards CLIL can be summarised into the following projects: Early Start to English, INEBI (English through Content in Primary Education), BHINEBI (English through Content in Secondary Education) and the Plurilingual Experience for Secondary Education and Baccalaureate. The most distinctive characteristic of its large-scale implementation is that it pursues enhancing multilingualism in a bilingual community as well as promoting the learning and use of the minority language. In the Basque Country two different modalities of CLIL are followed at present. In one of them English is taught by English language teachers through content-based units related to curricular areas (Social Sciences, Physical Education, Maths, etc.). The second modality involves teaching content subjects in English (History, Natural Sciences or Computer Science).

The region of Navarre, which is located near the Basque Country and presents some Basque-speaking areas, has also undertaken some CLIL pilot projects (Navés & Muñoz 1999; Heras & Lasagabaster 2015).

The Balearic Islands first mentioned the possibility of teaching parts of the curriculum in primary and secondary education through a foreign language in 2002 (Conselleria d'Educació i Cultura 2002a; 2002b). Regulations were developed to unify the previous provision and promote a widespread implementation of CLIL programmes (named European Sections in the Islands) in all stages of public education (Pérez-Vidal & Juan-Garau 2010).

The Valencian Community also presents a bilingual background in which both Spanish and Valencian are co-official. Support for CLIL has witnessed a dramatic increase in the last few years (Navés and Muñoz, 1999; Pérez-Vidal, 2002).

With regard to monolingual regions, the characteristics of CLIL implementation vary in the different communities as provision and funding are different in all of them. An interesting case is Madrid, which set up its programme in 2004, as separate from the previous Bilingual and Bicultural Project with the British Council.

A different scenario is that of Andalucía and its *Plan de Fomento del Plurilingüismo* (2005). Its origin can be traced back to 1998 when bilingual experiences began, first with French and then with German. In the so-called bilingual and plurilingual schools, the languages used for CLIL are now English, Italian and Portuguese, in addition to French and German. The *Plan de Fomento del Plurilingüismo* also mandates an early start of the first foreign language in pre-school and the introduction of a second foreign language in 5th grade (Lorenzo et al. 2010).

The previous analysis of the European language policy and the general overview of the Spanish scenario brings us to set the context of our research: the Galician case.

### **5.3. Setting the Context: the Galician Case**

With a population of around 2.8 million inhabitants, Galicia is a Spanish north-western autonomous community with specific linguistic and cultural hallmarks since two official languages are spoken: Galician, the regional language and closely related to Portuguese; and Spanish, the only official language from the 16th to the 19th century. Over time, its status has changed due to the political situation within Spain, ultimately affecting speakers' attitudes and the use of both languages (Hermida 2001; Loureiro-Rodríguez 2007; Loureiro-Rodríguez et al. 2013; Nandi 2016a, 2016b). As a majority language, Spanish has always enjoyed high status while Galician has been considered a non-standard and much stigmatised *dialect* from the 15th century to Franco's dictatorship (1939–1975), remaining

a linguistic variety mainly used by lower-class people living in the rural areas. The advent of democracy in 1978 transformed the linguistic conditions of Galicia, raising the status of Galician to that of *language* and declaring it co-official together with Spanish. Kronenthal (2003: 11) stated that the regional language

*enjoys a considerable amount of institutional support within the political confines of the Autonomous Community. The Galician Autonomy Statute of 1981 declared Galician to be "Galicia's own language" and conferred on it the status of an official language alongside Castilian Spanish. The Statute granted all citizens the right to know and use Galician, and stipulated that the Galician Government must guarantee its use in all areas of activity and promote knowledge of it. The Lei de Normalización Lingüística (Galician Linguistic Standardization Act) of 1983 declared Galician to be the official language of the regional administration and its associated bodies and granted citizens the right of recourse to the law to safeguard their linguistic rights. It contained provisions relating to the promotion of Galician culture, to the media, to the use of Galician in dealings between the regional administration and the public, to its use in the judicial system and within local authorities and with regard to place names. It also stipulated that Galician be taught as a compulsory subject at all levels of education, and that the number of hours given to the study of Galician must equal those given to the study of Spanish, with the aim of making pupils equally competent in both languages by the end of their studies.*

However, the relationship between the Galician language and its diglossic and low-prestige features is a common point in research carried out in respect of the language (Hermida 2001; Loureiro-Rodríguez 2007; Loureiro-Rodríguez et al. 2013; Nandi 2016a, 2016b). The challenges experienced since the initial recognition of ‘*other Spanish languages*’ (Article 3.2 of the Spanish Constitution of 1978) show the eagerness to avoid the disappearance of Galician through language policies aiming to protect it. Nevertheless, this linguistic situation has been arousing controversy for years. For example, with regard to education, there is considerable debate among adopting bilingualism or parents choosing the language they want their children to learn and in which they should be taught all subjects. This affects the teachers —not everyone can teach their subjects in both languages— and publishing companies. In Galicia, groups such as We Want Galician or



Bilingual Galicia, organise street protests for big decisions made by the local Galician government officials.

What seems to be clear is that language policy must be based on the protection and use of Galician, not only because of its diglossic situation extensively reported in the studies above but also because it is an unquestionable heritage of humankind. The point here is how to harmonise this language policy based on protection and preservation with the inclusion of other languages in the curriculum, in line with European guidelines on plurilingualism.

In order to understand the presence of Galician in schools, I will now provide a general reference to the provision. From the end of the 1970s, the teaching and learning of Galician has been regulated through different laws and directives (described below). This has made it possible for it to be taught in schools within the official curriculum framework by means of an immersion educational policy aimed at language preservation, development and standardisation.

The presence of Galician in schools was regulated in the Decree 135/1983 (Xunta de Galicia 1983), later modified in Decree 247/1995 (Xunta de Galicia 1995) and extended in Decree 124/2007 (Xunta de Galicia 2007a). According to García Negro (2000) Decree 247/95 fell short of reaching the goals it had been passed for, i.e. full linguistic competence in Galician by the end of compulsory education as well as a growing number of young users of the language. Decree 124/2007, on the other hand, ensured education in Galician for toddlers as well as for primary school children whose mother tongue was Galician, and set a minimum of a third of total class time in Galician in predominantly Spanish-speaking areas with the intention of gradually spreading the use of Galician. As to primary and secondary education, both compulsory and post-compulsory, it aimed at 50% class time in Galician, at least. It meant a gain compared to the previous 247/1995. In fact, the Final Report of the High Level Group on Multilingualism (2007) praised the Galician language

policy by stating that Galicia was a good practice laboratory relevant to the EU's aim of promoting multilingualism across the Union.

From the late 1990s to 2010, the regulation of the extension of the use of Galician in the curriculum was taking place at the same time as CLIL was gradually embraced and regulated (see below). There seemed to be a clash of interests: protection of Galician versus the introduction of foreign languages as vehicles for learning other subjects. This dual focus in language policy led the Galician Educational Department to publish, in June 2010, a decree on Plurilingualism —Decree 79/2010 (Xunta de Galicia 2010)—. This officially brought the use of foreign language as vehicular into public education, setting out that one third of subjects must be taught in a foreign language —mainly English— with the two remaining thirds taught in Galician and Spanish. The decree aroused a lot of controversy due to extensive belief 1) that the Galician language was going to play a minor role in the educational system; and 2) that teachers were not ready for such a change. Linguists and teachers considered that it is was not possible to establish this trilingual model because of a lack of teachers qualified to teach in English (Calvo & San Isidro 2012). Campaigners pointed out that, in practice, the English 33% would simply switch to Spanish medium. Experts claimed that it was bad practice to bring English into the education process alongside the two co-official languages —Galician and Spanish—, and that the move would severely undermine the success that the Galician language model had enjoyed to date (*Ditame do Consello da Cultura Galega* 2010). The Partido Popular (the ruling party) strongly disapproved of the decree passed in 2007 by the previous coalition government (PSOE–BNG) because they considered that the Galician language was imposed on children, and that the right to choose which language Galician children were taught in was undermined.

All in all, despite initial protests, the Decree on Plurilingualism came into force and foreign languages officially became vehicular, splitting CLIL implementation into two different models:

1) The **bilingual sections**, existing prior to the passing of Decree 79/2010 (Xunta de Galicia 2010), consist in teaching subjects in a foreign language. They can be implemented at any school level and students enrol voluntarily. In schools with bilingual sections there are CLIL and non-CLIL students. They were initially called European sections and their beginnings date back to the late 90s, when 20 secondary schools started piloting CLIL. Regulation has taken place in different stages as has its exponential growth and massive uptake:

a) Directives 18th April 2002 (Xunta de Galicia 2002), 26th May 2003 (Xunta de Galicia 2003) and 10th June 2005 (Xunta de Galicia 2005) regulated functioning of European sections. Selection of students was dependent on their results in the foreign language.

b) Directives 31st May 2006 (Xunta de Galicia 2006) set up the criteria required for CLIL implementation in primary education.

c) Directives 18th April 2007 (Xunta de Galicia 2007b) and 12th May 2011 (Xunta de Galicia 2011) unified functioning criteria and requirements. Any student could and can take part in a bilingual section as no grade is required.

It is this model the one used for research in this dissertation as it is the one that allows comparing CLIL and non-CLIL students. The number of schools taking part in bilingual sections in the school year 2016/2017 is 708, with almost 4.000 sections covering more than 50.000 students in both primary and secondary education (information provided by the Galician Educational Department).

2) The **plurilingual schools**, which were the result of Decree 79/2010 (Xunta de Galicia 2010), implement CLIL as a school project. All students in the school are taught one-third of the subjects through a foreign language —mostly English—. The rest of the subjects are taught through Galician and Spanish. The number of schools taking part in the plurilingual

programme in the school year 2016/2017 is 282, covering more than 40.000 students in both primary and secondary education (information provided by the Galician Educational Department). The large number of students in this second model —with not even half of the schools that implement bilingual sections— is explained by the fact that all students are CLIL students in plurilingual schools.

With the introduction of CLIL in its educational system, the Galician context makes a compelling case for research into language attitudes and use as it has been facing the challenge of developing and implementing a twofold language planning policy:

—On the one hand, a 30-year language policy based on the progressive increase of the presence of Galician in the curricular system, aiming at its standardisation, protection and use, not only because of its diglossic situation but also because it is an indisputable heritage of humankind.

—On the other hand, CLIL has been gradually introduced in the curricular system on an experimental basis for almost two decades. As seen in sections 5.1. and 5.2., the same as in the rest of Spain, the introduction of foreign languages as vehicles for teaching non-linguistic curricular subjects has had a large effect on language policy design.

In the next section I will focus on analysing the research specifically related to the impact of CLIL undertaken in Galicia.

## **5.4. Previous Research in the Galician Context**

In chapter 4, I analysed the research literature and draw the following conclusions considering the 5 parameters which are the focus of this dissertation:

- Research studies have shown that stakeholders involved in CLIL show positive views and attitudes as well as higher motivation regarding the foreign language. Although there is plenty of literature addressing teachers' perceptions, there does, however, seem to be

a need for research dealing with families' views and attitudes as well as with students' views and perceptions, not only in relation to the foreign language but also regarding other parameters: attitudes towards the learning situation, towards content learning, towards the methodology used, towards the teacher, etc. Lasagabaster and Doiz's (2015) study has revealed different results that do not tally with previous literature. Motivation towards the foreign language might not be sustained in the long term, and that is why the authors suggest the need for future research from a longitudinal qualitative perspective.

- As regards the impact of CLIL on additional language learning, in general, the studies reviewed show positive results regarding the impact of CLIL on foreign language learning. However, the analysis of the literature seems to suggest the need for longitudinal studies stretching over longer periods of time.
- Concerning the impact of CLIL on L1, although it is under-researched, the existing literature seems to indicate, in general terms, that CLIL does not have a detrimental effect on L1. Some research studies based on teachers' perceptions agree with this view or even show more positive opinions about CLIL impact on L1 (Barreiro & San Isidro 2009; Calvo & San Isidro 2012). However, some critical voices (Lorenzo et al. 2010) point out that some teachers view CLIL as a menace to L1. All in all, more outcome-oriented longitudinal research is needed so as to elicit solid analyses.
- Regarding the impact of CLIL on content learning, both outcome-oriented and opinion-based studies seem to suggest that CLIL either makes no impact on the learning of subject matter or shows a positive effect. However, the number of studies on content learning seem to lag behind if we consider research on attitudes or foreign language learning. Reliable longitudinal test-based research seems to be needed to be able to reach definitive conclusions (Dalton-Puffer 2011; Pérez-Cañado 2012).

- As to code-switching in CLIL environments, the almost non-existent research literature on students' code-switching through the use of classroom data makes it nearly impossible to draw some conclusions about the impact of CLIL on classroom code-switching, but it makes it clear that it must be a niche research should fill. Analysing how and how much CLIL students resort to code-switching can be a variable that researchers should make use of to gain a deeper insight into the effect of CLIL on language learning and development.

Research on this field in the Galician context has been scarce, most of it being descriptive analyses based on teachers' perceptions about CLIL implementation:

1) The first study on CLIL in Galicia was conducted in 2008 by San Isidro (2009a). An opinion-based survey was sent to 316 primary and secondary teachers in 114 schools implementing CLIL. According to teachers' perceptions, students improved performance in the three curricular languages —foreign language, Galician and Spanish— as well as in content learning. Furthermore, they improved their motivation towards learning foreign learning.

2) The only study based on empirical research was conducted by San Isidro (2010), who measured and analysed student's competence in English by using standardised tests. The study was carried out in ten schools with bilingual sections (see section 5.3.) across Galicia, in May 2009. The schools, from the four provinces in the region, decided to take part in the testing voluntarily: four in A Coruña, four in Pontevedra, one in Lugo and one in Ourense. The selection of the schools was discretionary and decided considering the following criteria:

- ◆ the ten schools had CLIL students enrolled in the experimental programme for two years;
- ◆ the schools had control groups—in regular curricular learning of English—;

- ◆ five of the schools belonged to urban areas and the other five were placed in rural contexts.

The participants were 287 CLIL and non-CLIL students —154 CLIL vs. 133 non-CLIL students— in the fourth year of secondary education. In each school two groups of students took the test: one CLIL group —enrolled on a CLIL programme for two years— and one non-CLIL group. The conclusions drawn from the study were:

- 1) CLIL cohorts outperformed their non-CLIL counterparts in a global English skill test, after being enrolled on a CLIL programme for two years.
- 2) No significant statistical differences were found regarding results between male and female CLIL students.
- 3) Significant context-related differences were found as to oral skills between CLIL students in rural and urban areas.

CLIL students' outperforming their non-CLIL counterparts might be related to the lack of initial matching of the samples, as well as with the fact that CLIL students' self-selection involved a higher degree of competence and motivation.

3) Another two studies (Barreiro & San Isidro 2009; Calvo & San Isidro 2012) focused on large-scale descriptive analyses of teachers' perceptions and students' results in secondary and primary education, respectively. In both of them, an online questionnaire was sent to the teachers and schools participating in the CLIL programme in primary education. Teachers and management boards had to fill it in as part of their official annual report and two main parameters were taken into account in the design:

- ◆ Opinion-based items;
- ◆ Students' results in the curricular languages (L1, L2 and L3) and the CLIL subjects.

The samples in Barreiro and San Isidro (2009) were:

- ◆ 604 secondary education teachers
- ◆ 100 secondary schools
- ◆ 302 bilingual sections
- ◆ 7223 students

The samples in Calvo and San Isidro (2012) were:

- ◆ 269 primary education teachers
- ◆ 85 primary schools
- ◆ 216 bilingual sections
- ◆ 7863 students

Both studies were concerned with a descriptive analysis of the results elicited from the questionnaire. The same as in any descriptive study, the main goal of this analysis was to provide a general idea about the variables studied. Most parts of the questionnaire were made up of 'closed-ended' items related to:

- A) Teachers' opinions on the attainment of goals.
- B) Teachers' opinions on the degree of difficulty in curricular development.
- C) Teachers' opinions on students' performance.
- D) Teachers' opinions on support and collaboration.
- E) Teachers' opinions on training needs.
- F) Students' results in the foreign language, Galician, Spanish and CLIL subject.

In both studies, teachers' perceptions were really positive about students' attitudes and performance in the three languages and content learning. Nonetheless, both emphasised the need for research based on measuring results. None of the studies above is longitudinal either, which clearly highlights the need for long-term and small-scale outcome-oriented analyses.



4) In 2011, San Isidro again addressed teachers' perceptions and students' results. The CLIL students targeted were finishing the first year of compulsory secondary education in the school year 2010-2011 and took part in either the bilingual sections —experimental CLIL— or the plurilingual schools —mainstream CLIL— (see section 5.3.). The analysis dealt with a descriptive and mostly quantitative analysis, aiming at eliciting data related to attitudes and results (grades) in the different curricular languages and CLIL subjects. As to students' results, they were contrasted considering the kind of CLIL programme (experimental vs. mainstream). The school year 2010-2011 was the first time mainstream CLIL started being implemented, so this was the reason why the first year of compulsory secondary education was chosen in order for the contrast of results to be possible between the two kinds of CLIL programmes. Two types of data were collected: the opinion of 348 teachers taking part in CLIL programmes; and CLIL students' results obtained in languages and CLIL subjects. As explained above, students were all in the first year of compulsory secondary education in two types of schools: those offering experimental CLIL (86 schools, 4370 students) and those offering mainstream CLIL (25 schools, 1336 students). In order to undertake the study, a variation of an official online questionnaire was used (Barreiro & San Isidro 2009). Two main parameters were taken into account in the design: opinion-based items; and students' results in both the curricular languages (L1, L2 and L3) and the CLIL subjects.

Although results were not taken as conclusive, they were very positive considering both teachers' opinions and students' results. The majority of teachers polled thought 1) that CLIL made students improve their communicative competence in all languages and 2) that it did not hinder the learning of non-linguistic contents. When comparing teachers' opinions with students' results in both kinds of programmes, the expected outcome surfaced: experimental CLIL students outperformed mainstream CLIL students. A correlation of language results was found for both cohorts. For each of the contrasted groups the results in the three languages were the same. Although the results of mainstream CLIL groups were lower, nothing seemed to indicate that mainstreaming CLIL could be negative for the

development of plurilingual competence. Nonetheless, it is important to pay attention to the fact that this analysis referred only to the school environment, and not to the social use of both co-official languages. It remains to be seen whether the problem of the diglossic use of Galician will be affected by mainstream CLIL.

Furthermore, more than 80% of the respondents stated that, through CLIL, students improved their competence in L1. The majority of teachers thought that the more languages students learned, the better they did in each of them. Considering the students' results in the three languages, there seemed to exist a correlation in the grades students attained. Nothing appeared to indicate any adverse effect on L1 (either Spanish or Galician). In fact, the majority of the teachers polled thought that the effect of CLIL on L1 was a beneficial one.

According to teachers' opinions, the effect of CLIL on learning non-linguistic content was a positive one. The majority of respondents thought that there existed a clear relationship between CLIL and the students' development of different learning strategies. Likewise, the majority of teachers held the view that CLIL students improved their learning abilities in the CLIL subject as well as their language abilities regarding the use of the foreign language in the CLIL subject. When comparing opinions with students' results, grades seemed to confirm what teachers thought. In fact, results showed a striking contrast with those found in languages: there were no significant differences between experimental and mainstream CLIL students regarding results in the CLIL subject. Mainstream CLIL students showed less statistical dispersion in their results than their experimental CLIL counterparts.

5) Using data gathered from the Educational Department, the same as Barreiro and San Isidro (2009) and Calvo and San Isidro (2012), González (2015) conducted a similar analysis on results, but on a longitudinal basis. He analysed students' results —grades— in Spanish and Galician in 44 classrooms belonging to 13 schools in two different school years. He found no significant difference between the CLIL cohorts and their non-CLIL counterparts.

Most of the research carried out in the Galician context so far has focused on teachers' perceptions and the analysis of students' grades. In general terms, results tally with the those analysed in chapter 4. Nonetheless, research undertaken in the Galician context reveals some of the lacunae identified by Pérez Cañado (2016b):

- ◆ the lack of homogeneity in the samples;
- ◆ the lack of longitudinal analysis;
- ◆ and the lack of mixed methods analyses.

With this context in mind, I addressed the design of the research in this dissertation, which I will explain in the next chapter.

## CHAPTER 6: RESEARCH DESIGN AND DEVELOPMENT

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### 6.1. Introduction

This thesis encompasses a two-year longitudinal mixed methods study on two groups of students, their families and teachers. It is focused on stakeholders' attitudes and perceptions as well as on students' language competence and content learning within a multilingual CLIL environment, a medium-sized rural high school in Galicia (Northern Spain):



Figure 13. Map

As seen in chapter 5, most of the research carried out in the Galician context so far has focused on quantitative analyses of teachers' perceptions and the analysis of students' grades. Although, in general, results tally with those analysed in chapter 4, research carried out in Galicia has revealed some of the lacunae identified by Pérez-Cañado (2016b): the lack of homogeneity in the samples; the lack of longitudinal analysis; and the lack of mixed methods analyses. Due to the multifaceted focus of this thesis, I have opted for a longitudinal study based on a mixed methods approach with a view to addressing complex issues for which neither a 100% quantitative nor a 100% qualitative approach would suffice. According to Johnson, Onwuegbuzie and Turner (2007), a mixed methods

approach is seen as a spectrum, with the degree of mixing being dependent on the research question(s).

After reviewing the CLIL-related research literature (see chapter 4) and identifying the research needs, I decided to set the three focal areas of this dissertation:

- 1) The triangulation-based analysis of students', families' and teachers' perceptions of language learning —related not only to both environmental and additional languages but also to CLIL implementation— through measuring students' and families' attitudes and motivations along with families' and teachers' opinions.
- 2) The analysis of students' results in the three curricular languages —Galician, Spanish and English— and in the CLIL subject —Social Science— through tests held in three different moments between 2012 and 2014.
- 3) The analysis of data related to students' oral code-switching elicited from monitoring four integrated tasks between 2012 and 2014.

With regard to the previous large-scale quantitative analyses on CLIL undertaken in Galicia (see section 5.4. in chapter 5), most of them were conditioned by the students' being selected in terms of their high competence in English. My intention with this thesis, however, was to monitor a small group of mixed-ability students observing their attitudes and perceptions and those of their families' and teachers' as well as measuring their progress over two school years. The core goal was delving into the reality of the classroom and the nuances of a specific context.

As a researcher, this thesis has been a journey from the perspective of policy-making and curriculum planning to the analysis of what happens in and outside of the classroom, the everyday teaching and learning experiences and the support from the colleagues taking

part in the project. It is a small sample, but the multifaceted analysis has allowed me to validate the participating stakeholders' results, voice and views.

As regards the procedure and instruments, I conducted participant observation through questionnaires, tests, interviews and tasks during two school years (2012-2014) while I was a teacher in the above-mentioned school. Prior to the start of the CLIL programme, I held various meetings with the families and students explaining the fundamentals of CLIL and the implications of enrolling on the programme. With regard to the teachers involved, we held a number of focus sessions to agree on their training needs before starting the programme and we jointly designed training modules covering the main aspects of the CLIL approach: curriculum planning, lesson planning and assessment (see chapter 3).

Given the emphasis on curriculum integration and the common methodology used in the teaching of the different curricular languages, the programme was to be designed as thoroughly as possible so that, on the one hand, pedagogical practice could be based on the knowledge of theoretical foundations and, on the other hand, the analysis of that practice could be valid. This is the reason why the methodology-related training of the teachers involved was necessary and took place before the CLIL programme started. The initial training made me gain an invaluable insight into their experiences and perceptions.

After setting up the research goals and questions, this chapter provides a description of the sample of this study as well as the various procedures, methods and tools used, directly connected to the focal areas of the thesis on language attitudes, outcomes, opinions and code-switching. The chapter then turns towards a discussion of the data collection tools as well as various considerations on the validity of the research.

## **6.2. Research Goals**

The research goals of this thesis are:

**1) Measure stakeholders' attitudes and motivations towards language learning as well as their perceptions on CLIL on a longitudinal basis.**

The context of this research is a point of paramount significance so as to understand its relation to and impact on the existing and developing attitudes and motivations towards language learning in the different curricular languages, as it is a multilingual setting. As seen in chapter 4 (section 4.2.), research studies have constantly shown that stakeholders involved in CLIL show positive views and attitudes as well as higher motivation regarding the foreign language. Although there is plenty of literature dealing with teachers' perceptions, there does, however, seem to be a need for research addressing families' views and attitudes as well as with students' views and perceptions, not only in relation to the foreign language but also regarding other parameters: attitudes towards the learning situation, towards content learning, towards the methodology used, towards the teacher, etc. Conversely, Lasagabaster and Doiz's (2015) study has revealed different results that do not tally with previous literature. Motivation towards the foreign language might not be sustained in the long term, and that is why the authors suggested the need for future research from a longitudinal qualitative perspective, which is precisely one of the goals of this thesis.

**2) Gather empirical information regarding language competence in the three languages used for learning —Galician, Spanish and English— on a longitudinal basis.**

In other words, the goal is to analyse if there are statistically significant differences between CLIL and non-CLIL students regarding their competence in the different languages. As previously analysed in chapter 4 (section 4.3.), in general, research studies show positive results relating to the impact of CLIL on foreign language learning. However, the analysis of the literature seems to suggest the need for longitudinal studies stretching over longer periods of time.

Regarding the effect of CLIL on L1, although it is under-researched, the existing literature seems to indicate, in general terms, that CLIL does not have a detrimental effect. Some research studies based on teachers' perceptions agree with this view or even show more positive considerations towards CLIL impact on L1 (Barreiro & San Isidro 2009, Calvo & San Isidro 2012). However, some critical voices (Lorenzo et al. 2010) point out that some teachers view CLIL as a menace to L1.

All studies seem to point to the fact that more outcome-oriented longitudinal research is needed so as to elicit robust analyses, as it is the case with the second goal of this thesis, focused on analysing the impact of CLIL on global language learning and development.

**3) Gather empirical information in relation to content learning on a longitudinal basis**, i.e. analyse if there are statistically significant differences between CLIL and non-CLIL students as regards learning Social Science. Considering the existing research literature related to the impact of CLIL on content learning, both outcome-oriented and opinion-elicitation studies (see chapter 4, section 4.4.) seem to suggest that CLIL either makes no impact on the learning of subject matter or shows a positive effect. Only one study so far (Fernández-Sanjurjo et al. 2017) has shown negative results as regards content learning. The model analysed in this study is characterised by lacking the collaboration characteristic of CLIL environments, which is a *sine qua non* for CLIL success (Pavón et al. 2014), as CLIL subjects in primary education are usually taught by the language specialists to the detriment of content. All in all, the number of studies on content learning appear to lag behind if we consider research on attitudes or foreign language learning. Solid longitudinal test-based research seems to be needed to be able to reach definitive conclusions (Dalton-Puffer 2011; Pérez-Cañado 2012). In the programme analysed in this thesis, which is based on teacher training and teacher collaboration as well as complies with the main principles of CLIL design and implementation, the goal is to see if content learning is affected or not.



#### **4) Observe CLIL students' oral code-switching on a longitudinal basis.**

As seen in chapter 2 (section 2.1.2.), research seems to support the view that bilingualism positively influences mechanisms of cognition in terms of mental flexibility, executive control and creativity, on the grounds of the bilinguals' metalinguistic ability and their capacity for code-switching. This is something relevant for our study. The students that took part in our research were bilingual (Spanish-Galician) and the methodology used required the use of different learning skills, problem-solving, understanding of things from different cultural perspectives and development of higher order thinking skills.

As seen in chapter 4 (section 4.5.), the almost non-existent research literature on students' code-switching in CLIL environments through the use of classroom data makes it nearly impossible to draw some conclusions about the impact of CLIL on classroom code-switching, but it makes it clear that it must be a niche that research should fill. Analysing how and how much CLIL students resort to code-switching can be a variable that researchers should make use of in order to gain a deeper insight into the effect of CLIL on language learning and development. The analysis of student-initiated code-switching presented in this thesis attempts to reveal to what extent classroom code-switching functions as a learning strategy.

### **6.3. Research Questions**

Since this thesis draws on methods from several research fields and reports findings from a questionnaire, interview, test and task-based analysis, research questions will be grouped around the three focal areas (see section 6.1.) and its related goals (see section 6.2.):

<p><b>FOCAL AREA 1</b></p>	<p>The triangulation-based analysis of students’, families’ and teachers’ perceptions of language learning –related not only to both environmental and additional languages but also to CLIL implementation– through measuring students’ and families’ attitudes and motivations along with families’ and teachers’ opinions.</p>
<p><b>GOALS</b></p>	<p>1) Measure stakeholders’ attitudes and motivations towards language learning as well as their perceptions on CLIL on a longitudinal basis.</p>
<p><b>RESEARCH QUESTIONS</b></p>	<p><b>RQ1:</b> Does CLIL have any impact on students’ attitudes and motivations towards language learning?</p> <p><b>RQ2:</b> Does CLIL have any impact on parents’ attitudes and motivations towards language learning?</p> <p><b>RQ3:</b> What are teachers’ perceptions on CLIL implementation and results?</p>
<p><b>FOCAL AREA 2</b></p>	<p>The analysis of students’ results in the three curricular languages –Galician, Spanish and English–and in the CLIL subject –Social Science– through tests held in three different moments between 2012 and 2014.</p>
<p><b>GOALS</b></p>	<p>2) Gather empirical information regarding language competence in the three languages used for learning –Galician, Spanish and English– on a longitudinal basis.</p> <p>3) Gather empirical information in relation to content learning on a longitudinal basis.</p>

<p><b>RESEARCH QUESTIONS</b></p>	<p><b>RQ4:</b> Are there any significant differences between CLIL and non-CLIL students regarding foreign language learning on a longitudinal basis?</p> <p><b>RQ5:</b> Are there any significant differences between CLIL and non-CLIL students regarding L1 learning on a longitudinal basis?</p> <p><b>RQ6:</b> Is CLIL providing a framework for language learning on a plurilingual basis?</p> <p><b>RQ7:</b> Are there any significant differences between CLIL and non-CLIL students regarding content learning on a longitudinal basis?</p>
<p><b>FOCAL AREA 3</b></p>	<p>The analysis of data related to students’ oral code-switching elicited from monitoring four integrated tasks between 2012 and 2014.</p>
<p><b>GOALS</b></p>	<p>4) Observe students’ oral code-switching on a longitudinal basis.</p>
<p><b>RESEARCH QUESTIONS</b></p>	<p><b>RQ8:</b> When does code-switching in CLIL students’ talk occur and what is its role?</p> <p><b>RQ9:</b> Are there any significant differences between CLIL and non-CLIL students as regards code-switching?</p>

Table 46. Focal areas, goals and research questions

### 6.4. Sample

The multifaceted nature of this thesis (see sections 6.1. and 6.3. in this chapter) is related to the fact that it aims to gain a deep insight into the effects of a language policy and the implementation of a CLIL model on a particular educational context, from the perspective of the different stakeholders —students, families and teachers— that make up the sample.

### 6.4.1. Students

As the study was longitudinal, students taking part in the research started S3<sup>1</sup> in the school year 2012-2013 and did S4<sup>2</sup> in the next one. Regarding methodology, the only difference between the two groups analysed (CLIL vs. non-CLIL) was the fact that the CLIL cohort was learning Social Science through English. Nonetheless, despite the fact that, in the meetings held prior to the start of the project, we made it clear to the families and students themselves that enrolling CLIL would make a difference, the truth is that the same methodological components were used with both groups: curriculum integration through task and project-based learning, multilingual approach to language learning, use of other curricular content in the English class and the international character of projects — Erasmus-funded projects, trips abroad or eTwinning—.

Two types of samples were used for the different focal areas (see section 6.3. above):

1) As regards focal areas 1 and 2, two groups of students —CLIL group and control group — took part in the longitudinal study. A total of 44 students —20 CLIL and 24 non-CLIL, who considered themselves bilingual —Spanish-Galician— and claimed they could use both languages in any situation. Nonetheless, 95% of them used Galician as an L1 in the educational environment as well as with family and friends (see the description of the attitudinal/motivational questionnaire in section 6.5.3.1. below).

Considering their participation in the CLIL programme, none of the students were selected in terms of grades or behaviour and, although enrolment was voluntary, sign-up only took place after three information meetings with families and students, which aimed to make the project appealing to all students. The information given focused, on the one hand, on classroom practice —task and project-based learning (see chapter 3), the value of learning through an additional language, the lack of difficulties in doing so, etc.— and, on the other

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<sup>1</sup> Third year of compulsory secondary education (3º ESO in the Spanish education system).

<sup>2</sup> Fourth year of compulsory secondary education (4º ESO in the Spanish education system).

hand, on the international component of the project, including several trips abroad, as a way of luring the kids into participation. It was all about creating motivation and positive expectations about the programme. Since places were limited, applications were processed in strict order of receipt. The result was the CLIL group being an intendedly varied representation of mixed abilities and interests, the same as the non-CLIL counterpart (see below). Something commonly found in research literature is results being highly dependent on CLIL students having a high proficiency in the additional language — mostly English—. Nonetheless, my intention when designing the project could not be further from it as I wanted to monitor a small group of students with different abilities and measure their progress during a period of time —two school years— with a view to delving into the reality of the classroom and the nuances of a specific context.

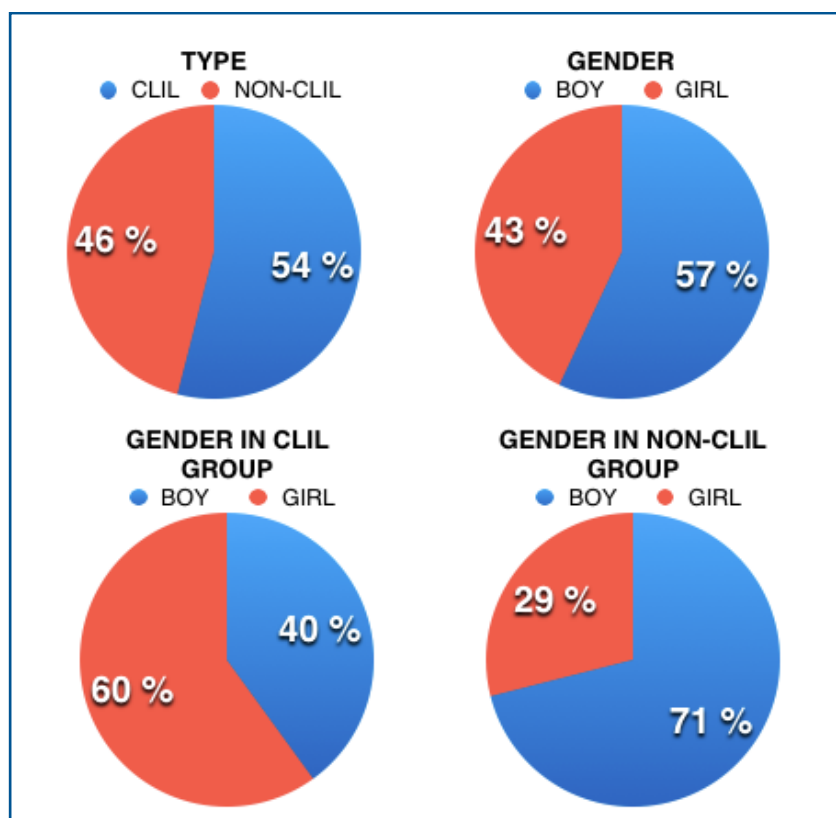


Figure 14. Sample of students according to type and gender

Considering the whole sample, the number of non-CLIL students was slightly higher than the non-CLIL counterparts. Regarding gender, although boys outnumbered girls, the

difference between both groups was pretty clear: more than 70% were boys in the non-CLIL group whereas 60% were girls in the CLIL cohort.

The groups were homogeneous regarding academic performance (see section 7.1.1. for homogeneity statistical tests), in terms of language (English, Galician and Spanish) and content. Considering their competence in English, both cohorts were similar as regards their CEFR level, which was measured and elicited through two placement tests (see section 6.5.1.1. below). 80% of CLIL students and 75% of non-CLIL students were placed between A2 and A2+.

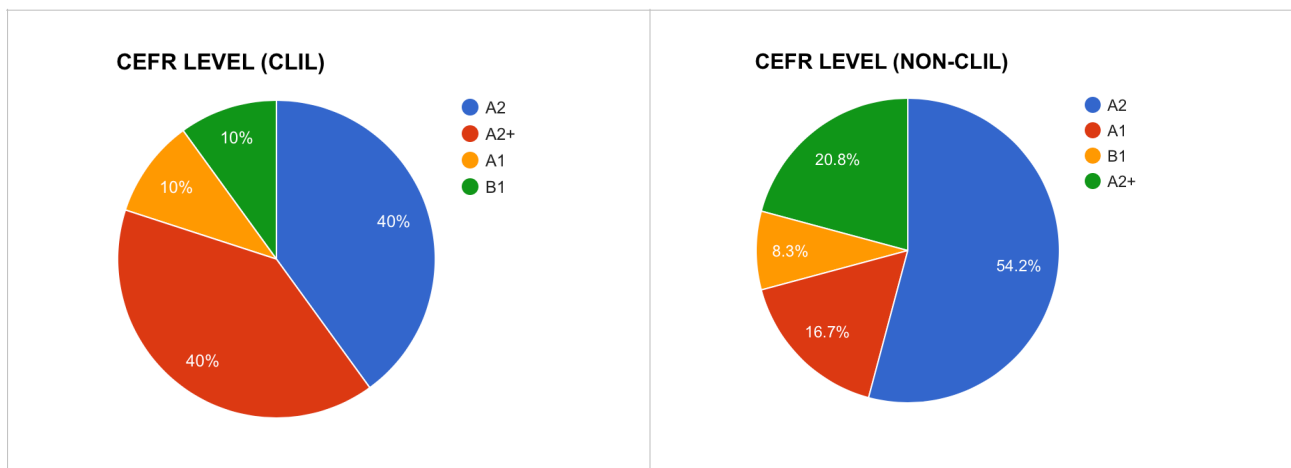


Figure 15. Students' CEFR level at the start of the programme

With regard to their academic performance in Social Science, a test specially designed to measure previous knowledge (see section 6.5.1.3. below) was delivered by Social Science teachers in both groups. Results were pretty much the same in both cohorts:

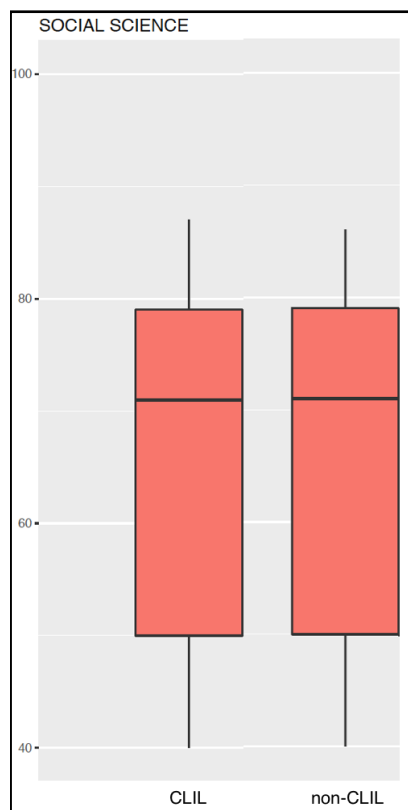


Figure 16. Previous knowledge test results

Nonetheless, the initial matching of both groups from an academic perspective did not exactly tally with the students' attitudes and motivation towards language learning, which, as expected, were slightly different at the start (see 7.1.1.5.). Although, in general, both cohorts showed positive attitudes and motivations, self-selection was related to the CLIL group's more positive attitudes and motivation towards learning foreign languages.

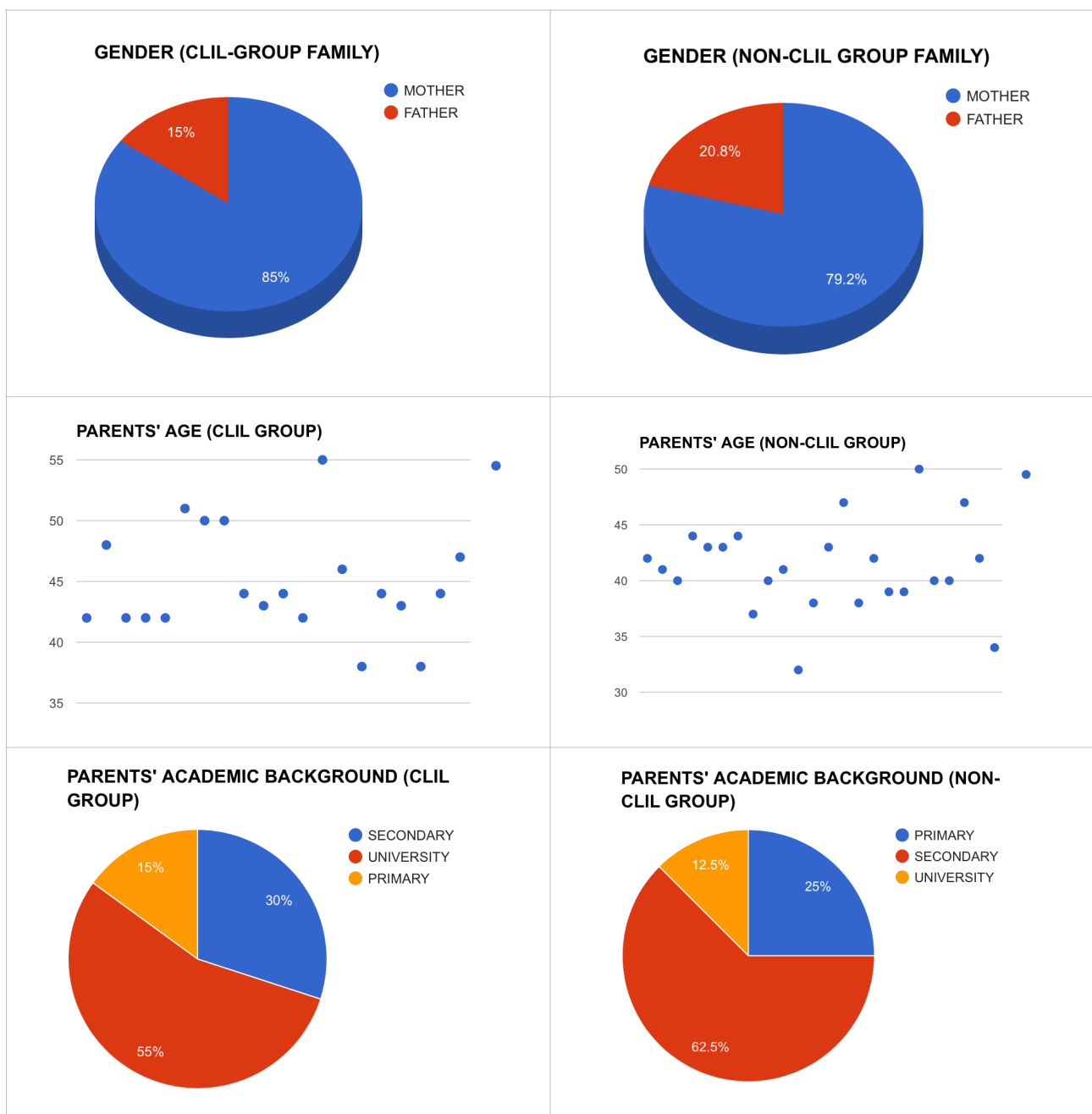
2) As regards focal area 3, we selected 5 pairs of students, each pair being made up of one CLIL student and one non-CLIL counterpart. Selection took place not only after the initial placement tests in English and the previous-knowledge test in Social Science, but also after we measured English competence in both cohorts in September 2012 (see sections 6.5.1. and 6.6.1.2. below). Pairs were matched according to their CEFR level, their result in the previous knowledge test and their result in the first English exam.

There were no differences between CLIL and non-CLIL students regarding both their competence in the foreign language, Galician and Spanish and their content knowledge

(see statistical tests for homogeneity in 7.1.1. The only difference was found in their attitudes towards English (see section 7.1.1.5.).

### 6.4.2. Families

The sample of families comprised 44 parents, whose profiles were defined through the use of a questionnaire (see section 6.5.3.2. below):





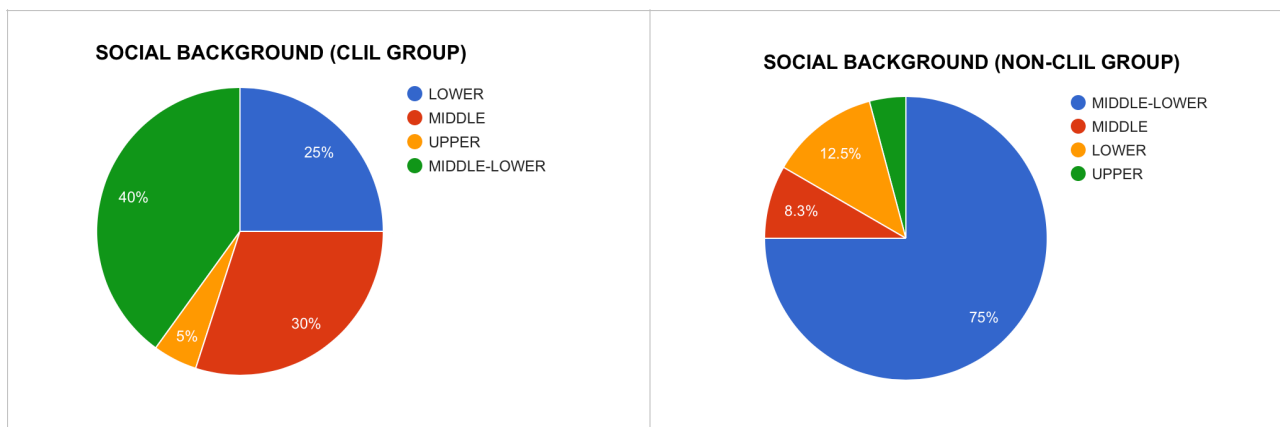


Figure 17. Sample of families regarding gender, age, academic background and social background

Gender-wise, the sample of families involved showed a majority of mothers in both groups: 85% in the CLIL group and almost 80% in the non-CLIL cohort. As regards age, parents in the non-CLIL group were slightly younger as their age range concentrated in the 35-45 year-olds band. On the other hand, the majority of parents in the CLIL group were within the age range of 40-50.

With regard to their academic background, 55% of parents in the CLIL group had a university degree and 30% claimed to have completed secondary education. On the other hand, only 12.5% of parents in the non-CLIL cohort claimed to have a university degree and 62.5% of them had finished high school.

As far as their socio-economic background is concerned, parents placed themselves in the different levels provided in the questionnaire, which included questions related to their income, their resources and materials at home or the type of cultural activities they made their children be involved in. Parents classified their socio-economic background in one of the following four types: upper, middle, middle-lower and lower. As regards the CLIL group, 65% of parents claimed their socio-economic background was middle-lower and lower, while 30% of respondents placed themselves as middle. On the other hand, 87.5% of parents in the non-CLIL cohort considered they belonged to a middle-lower or lower background, while only 8.3% considered their socio-economic background was the middle one.

With regard to their use of both co-official languages, all of them in both cohorts stated that they could use either Galician or Spanish fluently, but 95% of them claimed Galician was the language they used in everyday life.

### **6.4.3. Teachers**

Analysis of teachers' perceptions is the linchpin of goal number one in relation to RQ3 (see section 6.3. above). Since the CLIL project analysed in this dissertation was based on curriculum integration and the collaboration of the different language teachers, the sample was a representation of it: one teacher of Galician, one teacher of Spanish, two teachers of Social Science and two teachers of English. All of the teachers involved were female, with more than 15 years of teaching experience and their age ranges were 41-50 and 51-60.

In different ways, all of them took part in the CLIL programme and collaborated in the design of the training modules seen in chapter 3. Pedagogically, the same principles were used for work with both groups in the different languages and tasks and projects were planned and developed on a multilingual basis.

Although I was the coordinator of the whole project, for ethical reasons, I did not include myself in the analysis as it was me that designed and conducted questionnaires and interviews.

### **6.5. Collecting data: Instruments**

The complexity of analysing stakeholders' attitudes, opinions and results made me use a number of various instruments for gathering data from different respondents in relation to the research questions. The quantitative investigation of this project was characterised by the use of tests and self-completion questionnaires. Standardised tests were used to elicit empirical evidence on students' results in the different languages and in Social Science. Results were recorded on an Excel spreadsheet for later statistical treatment through the

use of R software, an open-source programming language and software environment for statistical computing and graphics that is supported by the R Foundation for Statistical Computing.

Self-completion questionnaires are also a useful tool for eliciting quantifiable data. They were used to collect data related to students' and families' attitudes and motivations. Responses were recorded on an Excel spreadsheet, and R software was used for statistical treatment. Furthermore, an online questionnaire was designed to elicit teachers' opinions on CLIL implementation, whose answers were also exported as an Excel and were used later for description (see chapter 7).

Oral tasks were used to measure students' code-switching from a mostly qualitative perspective. Five pairs of students were filmed four times performing speaking activities and video footage was used for later transcription and analysis.

Interviews recorded through the app Voice Record were as well part and parcel of the qualitative analysis in this thesis. They were conducted with teachers. Frequently chosen as a data-collecting technique because of their various advantages, recorded interviews typically produce detailed accounts from respondents and the researcher can exploit the interactive nature of the interview to better understand the informants' responses (Garrett et al. 2003). Although *'interviews are extremely time-consuming and difficult to administer'* (Bryman 2004: 133), I decided to use them because the samples were small — 6 teachers— and transcription would not be so tedious. Interviews were transcribed and in-depth notes were taken regarding participants' opinions, noting down possible categories for later coding.

The instruments mentioned above were used in relation to every focal area, every goal and every research question:

Area	Goal	Research question	Data-collecting instruments	Data
Focal area 1	Goal 1	RQ1	Questionnaire	Spreadsheet
		RQ2	Questionnaire	Spreadsheet
		RQ 3	Questionnaire Interviews	Spreadsheet Recordings/transcripts
Focal area 2	Goals 2 and 3	RQ4	Tests	Spreadsheet
		RQ5	Tests	Spreadsheet
		RQ6	Tests	Spreadsheet
		RQ7	Tests	Spreadsheet
Focal area 3	Goal 4	RQ8	Tasks	Video footage/ transcripts
		RQ9	Tasks	Video footage/ transcripts

Table 47. Data-collecting instruments

### 6.5.1. Tests

Tests were specifically designed to elicit results in relation to focal area 2, goals 2 and 3 and research questions RQ4, RQ5, RQ6 and RQ7 (see sections 6.3. and 6.5. above).

#### 6.5.1.1. English

Prior to starting the programme in September 2012, we conducted two placement tests in English. First, we used an online Oxford University Press test included in a license the school had with the publishing company. The four skills were measured in the same fashion as the Cambridge tests (KET and PET) and, according to their scores, students were classified into four different levels: A1, A2, A2+ or B1. In order to reinforce the students' awareness of the different levels in the CEFR, we conducted a second placement test, the old version of DIALANG online diagnostic system. DIALANG offered — and still does— separate tests for reading, writing, listening, grammatical structures and vocabulary, providing test instructions, controls, help pages, explanations, self-assessment statements, test results, feedback and advice in 14 languages. These tests enable the users to become aware of their strengths and weaknesses. The tests are offered across a wide range of proficiency levels from beginners to advanced. Nevertheless, DIALANG has

not yet developed effective methods to test speaking. The procedure is described in the CEFR, in its appendix C:

1. *Choice of administration language (14 possible)*
2. *Registration*
3. *Choice of test language (14 possible)*
4. *Vocabulary Size Placement Test*
5. *Choice of skill (reading, listening, writing, vocabulary, structures)*
6. *Self-assessment (only in reading, listening, and writing)*
7. *System pre-estimates learner's ability*
8. *Test of appropriate difficulty is administered*
9. *Feedback*

(Council of Europe 2001a)

During the project, the students' competence in the foreign language (English) was measured three times via KET (A2 level, delivered two times) and PET (B1 level, delivered once) tests —Cambridge English Key and Preliminary exams (see samples in Appendix A) —, comprising reading, writing, listening and speaking. Tests were adapted in terms of marking —every skill weighted by 100%—. The KET tests were made up of the following parts:

- ◆ The reading/writing tests (1 hour and 10 minutes) comprised a variety of 56 reading comprehension and writing exercises, including gap-filling, short open questions, matching, true/false and multiple-choice cloze. The writing part took into consideration: content, vocabulary, organisation, language usage and spelling.
- ◆ The listening tests (30 minutes) comprised five parts. Students had to listen twice to each of the five listening texts and answer 25 listening comprehension questions, featuring true/false, multiple choice and short answers.

- ◆ The speaking tests (1 minute for preparation and 3-5 minutes for performance) were dialogue-based and took into account grammar and vocabulary, discourse management and interactive communication.

The PET test comprised the following parts:

- ◆ The reading/writing tests (1 hour and 30 minutes) comprised 1) a set of 35 questions divided into five parts about reading comprehension, multiple choice, short answers, etc; and 2) 7 writing-related questions divided into three parts.
- ◆ The listening tests (35 minutes) comprised five parts. Students had to listen twice to each of the five listening texts and answer 25 listening comprehension questions, featuring true/false, multiple choice and short answers.
- ◆ The speaking tests (1 minute for preparation and 3-5 minutes for performance) were dialogue-based and took into account grammar and vocabulary, discourse management and interactive communication.

Tests were corrected at the same time by two English teachers through the templates provided. The parts of the tests whose assessment was subjected to more criteria than the template (open questions, writing and speaking) were corrected jointly by both teachers, who had to agree on the final mark through the use of a standardised rubric. Results were recorded by four teachers on a shared online spreadsheet. They later checked twice the data introduced. We resorted to a number of teachers due to the fact that data-recording is a time-consuming task and teachers in schools do not usually have the time to do extra work. Thus, we used collaboration as a regular procedure. Reliability was guaranteed in different ways:

- ◆ Tests were standardised and the most part of correction was template-based.

- ◆ Results were all scored accurately and consistently by more than one teacher.
- ◆ With parts that were meant to be assessed with more criteria, the correction was carried out jointly by two teachers at the same time. Both teachers had to agree on the final grade through a rubric showing the different criteria and standards related to the students' different levels of performance.
- ◆ Data were recorded and checked twice by four different teachers.

### 6.5.1.2. Galician and Spanish

We also tested the students' competence in Galician and Spanish three times during the two-year CLIL project. The tools used were official tests from Galician *Escuelas Oficiales de Idiomas*, state-run language schools long established in Spain and completely unknown abroad that are officially accredited to issue language competence certificates in different levels.

Intermediate level tests were administered twice, and advanced level tests were delivered at the end of the project (see samples in Appendix A). Tests comprised the following parts, all of them weighted by 100% for the sake of marking:

- ◆ The listening tests (35 minutes) comprised 4 comprehension tasks featuring multiple-choice, true-false, short answers and matching.
- ◆ The reading tests (60 minutes) were made up of 4 comprehension tasks as well, featuring text-title matching, text-information matching, true-false and multiple choice answers.
- ◆ The writing tests (75-90 minutes) featured writing opinions, letters, emails, essays, etc.
- ◆ The speaking tests (2 minutes per task) featured dialogues between pairs.

Galician tests were corrected by two Galician teachers and Spanish tests were corrected by two Spanish teachers using templates. The parts of the tests whose assessment was subjected to more criteria than the template (open questions, writing and speaking) were corrected jointly by both teachers, who had to agree on the final mark through the use of a standardised rubric. Results were recorded by four teachers on a shared online spreadsheet. They later checked twice the data introduced. As explained in the previous section, we resorted to a number of teachers for data-recording as it is a time-consuming task, and teachers in schools do not usually have the time to do extra work. Thus, we used collaboration as a regular procedure. Reliability was guaranteed in different ways:

- ◆ Tests were standardised and the most part of correction was template-based.
- ◆ Results were all scored accurately and consistently by more than one teacher.
- ◆ With parts that were meant to be assessed with more criteria, correction was carried out jointly by two teachers at the same time. Both teachers had to agree on the final grade through a rubric showing the different criteria and standards related to the students' different levels of performance.
- ◆ Data were recorded and checked twice by four different teachers.

### **6.5.1.3. Social Science**

The students' learning of content was also tested three times during the project. In accordance with Spanish and Galician provision (see section 3.1. in chapter 3), Social Science tests were designed to assess the degree of development of curricular contents in Social Science for S3 and S4 (see samples in Appendix A). Tests were delivered in Galician with both cohorts and featured closed and open questions, matching, graph interpretation and text interpretation, all of them with option-based answers.



Social Science tests were corrected by the CLIL teachers. The same as with the tests above, four teachers recorded results on a shared online spreadsheet. They later checked twice the data introduced. Data were recorded by a number of teachers as recording results is a time-consuming task, and teachers in schools do not usually have the time to do extra work. Thus, we used collaboration as a regular procedure. Reliability was guaranteed in different ways:

- ◆ Tests were specifically designed to measure content knowledge and correction was template-based.
- ◆ Results were all scored accurately and consistently by more than one teacher.
- ◆ Data were recorded and checked twice by four different teachers.

### **6.5.2. Tasks**

Tasks were specifically designed to elicit results in relation to focal area 3, goal 4 and research questions RQ8 and RQ9 (see sections 6.3. and 6.5. above). Students' oral performance was monitored and filmed in four different moments over the two years and the second sample of students was used, as seen in section 6.4.1. above. It is important to highlight again the fact that the same methodological components were used with CLIL and non-CLIL students: curriculum integration through task and project-based learning, multilingual approach to language learning, use of other curricular content in the English class and the international character of projects —Erasmus-funded projects, trips abroad or eTwinning—.

Task-monitoring was used with five pairs including one CLIL student and one non-CLIL counterpart, who were selected through an initial matching (see section 6.4.1. above). Four tasks were used (see Appendix B), all of them language and content focused: tasks 1 and 3 were monologic whereas tasks 2 and 4 were dialogic. Every couple was filmed separately, and the procedure used for all of them was as follows:

- 1) The teacher explained the task, based on oral performance.
- 2) The pairs were given visual support (through the interactive whiteboard) with information, some vocabulary and some tips. The contents and language in the tasks had previously been worked upon in the English class with all students.
- 3) The students had 10 minutes to prepare their oral presentation, which was performed either individually (tasks 1 and 3) or in pairs (simulation-based dialogues in tasks 2 and 4). The preparation was pair-based in the four tasks —not only in the dialogues— so that students could help one another.
- 4) The students orally performed the task during 5 minutes while being filmed by the teacher.

Film footage was transcribed and code-switches were coded using the software Atlas.ti.

### **6.5.3. Questionnaires and Interviews**

Questionnaires and open-ended question interviews were specifically designed to elicit results in relation to focal area 1, goal 1 and research questions RQ1, RQ2 and RQ3 (see sections 6.3. and 6.5. above).

#### **6.5.3.1. Students**

As seen in section 2.3.2. in chapter 2, our design of a questionnaire was based on Gardner's socio-educational model, and it aimed to measure students' attitudes and motivations towards languages. Gardner (1985), dealing with his socio-educational model, explained that the learner's attitude towards an additional language and their integrativeness —how open a learner is to another culture— have a massive impact on the level of motivation. According to him, motivation can be understood from three different

perspectives: the one related to the effort to achieve a goal, the one related to the desire to learn a language and the one related to the satisfaction with learning that same language. Gardner's most recent version of the socio-educational model can be found in Masgoret and Gardner (2003). The model draws a line between attitudinal and motivational variables, considering integrativeness and learners' attitude towards the learning situation attitudinal factors, as distinct from motivation, which can be integrative and instrumental. They confirm that the learners' integrativeness and attitude towards learning have a great impact not only on their motivation but also on their achievements.

The model proposes that ability and motivation are two primary individual difference variables involved in language learning. The students showing higher levels of ability — intelligence and language aptitude— will tend to be more successful in learning the language. In a similar way, students showing higher levels of motivation will do better than the ones with less motivation in general terms. Gardner's model considers both ability and motivation as being involved in both formal and informal language learning contexts. In the model, both settings —formal and informal— are seen as leading to both language and non-language outcomes.

Gardner's socio-educational model also proposes that other variables are involved in additional language learning. For instance, language anxiety can obviously play a role in language learning, although the role might be complex and difficult to analyse. Anxiety may well have motivational properties which might facilitate achievement. It also has distressing properties that may interfere with learning and production. Language anxiety is generally considered to be negatively connected to both achievement and self-confidence when using the language.

Another variable involved in second language achievement is instrumental orientation — inextricably linked to achievement—. Individuals might want to learn a language for practical reasons. This is why it would be reasonable to expect that the relationship between instrumental orientation and achievement would be purely mediated by

motivation. This clearly entails the fact that the levels of motivation are influenced and maintained by attitudes towards both the learning situation—and integrativeness— and instrumentality.

Gardner's model does not formally refer to contextual characteristics, although they are an integral part of the model. It is obvious that quality instruction leads to quality learning: how lessons are presented, scaffolding (see section 3.1.4.), careful planning of goals, alignment of planning and tasks, etc. will all promote learning. Opportunities to use the additional language reinforce and consolidate what is learned. The socio-cultural background offers situations, scenarios, expectations, role models, etc. which can boost language achievement. Low-quality instruction, on the other hand, offers few opportunities to use the language, inhibiting language learning and achievement. Nonetheless, these environmental factors work together with the individual's personality variables, such as sociability, introversion or extroversion, which influence the individual's natural tendency to respond in different situations.

As regards the instruments in the model, Gardner developed the Attitude Motivation Test Battery —AMTB— (Gardner 2004), a standardised test which I adapted in order to design the second part of the questionnaire. I used a shortened version of it based on semantic differential format scales.

The questionnaires were administered three times over the two years. There were two versions of them —Galician and English— and students could complete them at their discretion. They were first presented to families and students in one of the previous meetings and every question was explained. The days in which questionnaires were administered, two teachers were present giving instructions and answering every question in order to make sure questionnaires were appropriately completed.

The questionnaire (see section 7.1.1.5) was divided into three parts:

1) The first one dealt with personal information such as gender, age and degree of use of both co-official languages —Galician/Spanish—. The academic and socio-economic background of the students' families was included in the parents' questionnaire (see section 6.5.3.2. below)

2) The second section (items 1–13) was the main part of the questionnaire. The items were related to the following variables: attitudes towards the learning situation, integrativeness, motivation, language anxiety, instrumentality and parental encouragement. Items were assessed by means of a semantic differential format scaled from 1 to 7. For example:

1. My motivation to learn English in order to communicate with English-speaking people is:

WEAK \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 STRONG

2. My attitude toward English speaking people is:

UNFAVOURABLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 FAVOURABLE

3) The last part of the questionnaire included questions in which the students were asked to indicate their preference for a language of instruction (Galician, Spanish or English), to give their opinion about the difficulty of learning through a foreign language as well as about task and project-based learning.

Four teachers recorded results on a shared online spreadsheet. They later checked twice the data introduced. As with the tests describes in the previous sections, a number of teachers recorded data due to the fact that recording results is a time-consuming task and teachers in schools do not usually have the time to do extra work. Thus, we used collaboration as a regular procedure. Reliability was guaranteed in different ways:

- ◆ Questionnaires were carefully administered.
- ◆ Data were recorded and checked twice by four different teachers.

### 6.5.3.2. Families

A similar questionnaire was used to measure parents' attitudes and motivations towards their kids' learning languages (see section 7.1.2.1.). The questionnaires —in Galician— were administered three times over the two years and were first presented to families and students in one of the previous meetings, where every question was explained. The days in which questionnaires were administered, two teachers were present giving instructions and answering every question in order to make sure questionnaires were appropriately completed.

The test was divided into three parts:

1) The first one dealt with personal information such as gender, age, degree of bilingualism —Galician/Spanish—, academic and socio-economic background and language competence in foreign languages.

2) The second section (items 1–12) was the main part of the questionnaire. The items posed questions related to both the parents' own attitudes about language learning and their motivations about their kids learning languages. Items were related to the following variables: attitudes towards the learning situation, integrativeness, motivation and parental encouragement. They were assessed by means of a semantic differential format scaled from 1 to 7, as seen in section 6.5.3.1. above.

3) The third part was to be completed only by CLIL students' parents and was only delivered by the end of year one and year two. It featured questions on their opinion about CLIL implementation.

Four teachers recorded results on a shared online spreadsheet. They later checked twice the data introduced. We resorted to a number of teachers due to the fact that recording results is a time-consuming task and teachers in schools do not usually have the time to

do extra work. Thus, we used collaboration as a regular procedure. Reliability was guaranteed in different ways:

- ◆ Questionnaires were carefully administered.
- ◆ Data were recorded and checked twice by four different teachers.

### **6.5.3.3. Teachers**

An online questionnaire based on the ones used for previous studies (San Isidro 2011, Calvo & San Isidro 2012) was specifically designed through Google forms to elicit the six participating teachers' opinions on CLIL implementation (see section 7.1.3.1.). Teachers completed it once at the end of the two-year project. It was made up of two main parts:

- 1) The first one dealt with personal information such as gender, age and profile (CLIL or language teachers).
- 2) The second part comprised 21 items related to the teachers' views on the attainment of goals, on the degree of difficulty in curricular development and on students' performance.

Answers were exported to an Excel spreadsheet for later analysis.

Teachers were also interviewed three times over the two years of the project with a view to observing their perceptions on a longitudinal basis. Open questions were used in the interviews, which I recorded myself and later transcribed for analysis (see chapter 7) using the software Atlas.ti.

## **6.6. Stages**

The different tools used for data collection explained in section 6.5. above were administered in different moments, according to the different goals and the three types of

participants and/or respondents. In this section, I will set out the different timings of the different procedures.

### **6.6.1. Tests**

As seen in section 6.5.1.1. above, English placement tests were administered prior to the start of the programme. Students were measured at the beginning of September 2012.

Over the two years, the tests used for measuring students' competence in the different languages as well as in content learning (see sections 6.5.1.1., 6.5.1.2. and 6.5.1.3.) took place in three different moments:

- ◆ September 2012
- ◆ June 2013
- ◆ June 2014

### **6.6.2. Questionnaires and Interviews**

Questionnaires and interviews (see section 6.5.3. above) took place in different moments with the different stakeholders over the two years.

Students and families' attitudinal/motivational questionnaires were administered in three different moments:

- ◆ September 2012
- ◆ June 2013
- ◆ June 2014

On the other hand, teachers completed the online questionnaire in June 2014, once the CLIL programme had finished.



As regards interviews, they were used with the six teachers that took part in the programme. Teachers gave their views and opinions on CLIL implementation in three different moments:

- ◆ Before the start of the programme at the beginning of September 2012
- ◆ In June 2013
- ◆ In June 2014

### **6.6.3. Tasks**

Monitoring through tasks was used with five pairs of students (see section 6.5.2. above) in four different moments:

- ◆ October 2012
- ◆ March 2013
- ◆ November 2013
- ◆ May 2014

## **6.7. Validity of Research**

Due to the multiple focal areas of this study I have used a mixed methods approach. Through the combination of a number of data-collecting instruments such as tests, questionnaires, recorded and transcribed interviews and filmed and transcribed oral tasks, this research attempts to provide a deeper insight into CLIL implementation in a particular multilingual setting through analysing a small sample of stakeholders. The intention is not using the quantitative analysis to provide generalisable and transferable conclusions, but using it to complement the qualitative analysis so as to gain first-hand knowledge of all the elements interacting in a particular school.

While empirical studies have traditionally been based on either quantitative or qualitative methods, triangulation or mixing of such methods in the data collection, analysis and interpretation has also been demanded (Creswell and Plano Clark 2007; Creswell 2009).

*Triangulation consists in contrasting information using a variety of sources. It is based on two things: the rich collection of data (from different sources of information and through various techniques) and quality control in the interpretation of the data bringing about a deeper understanding that serves to corroborate among observers (interpersonally) and/or contrasting such understanding empirically with a series of similar data.*

(Bisquerra, 2009: 332, my own translation)

Such mixed methods research has been proposed for the following reasons:

- ◆ to improve the validity of theoretical propositions;
- ◆ and to obtain a more complete (less biased) picture of the phenomenon under study (Webb et al. 1966).

It has also been considered useful in specifying research questions, familiarising the researcher with the subject and/or context. Triangulation of methods can enable a case researcher to address a broader range of historical, attitudinal and behavioural issues, and to develop converging lines of inquiry that can be used to make case study findings and conclusions more convincing and accurate (Yin 2003). Triangulation in its various forms has also been considered useful in improving the reliability of a study (Lillis 2006).

Mixed methods research offers researchers the possibility to combine qualitative and quantitative data collection and analysis either concurrently or sequentially, in one or more stages of the research process and to different degrees (Bryman 1988).

Since our study collected data in the sequence of first quantitative, then qualitative, and then quantitative again, the data analysis was carried out accordingly (see chapter 7) allowing the results from these two methods to be triangulated and used to interpret the

findings and analyse them from different angles. Students' results elicited via standardised tests were later triangulated with teachers' views and perceptions on those results, providing a richer and broader picture. The same happened with analysis of students' attitudes contrasted to the teachers' perceptions of those attitudes. Validity in our study is related to the different methods used as well as the diverse but converging views and perspectives of the different stakeholders.

## CHAPTER 7: PRESENTATION AND ANALYSIS OF DATA

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As seen in section 6.1., since this thesis draws on methods from several research fields and reports findings from a questionnaire, interview, test and task-based analysis, research questions were grouped around three focal areas (see section 6.1.) and its related goals (see section 6.2.).

In this chapter I will report findings in two parts considering the division into quantitative and qualitative data. Every part will deal with the different stakeholders and will be subdivided considering the different instruments used as well as the research questions mentioned above.

### 7.1. Quantitative Analysis: Tests and Questionnaires

This section will deal with the quantitative analysis of:

1) The students' results in the three curricular languages —Galician, Spanish and English— and in the CLIL subject —Social Science— through tests held in three different moments between 2012 and 2014 (see section 6.5.). This analysis is related to research questions RQ4, RQ5, RQ6 and RQ7 (see section 6.3.). Largely, the same statistical operations and tests have been utilised when analysing results in 1) the three languages, in each of the four skills referred to in this chapter —listening, speaking, reading and writing—; and 2) content learning. I fully recognise that the application of the tests and operations are repeatedly described under each skill area for the languages and content concerned. Whilst this results in a degree of repetition, it has been deliberately structured in this way in order to ensure that readers have the opportunity to read or reference any section in isolation to others, thus avoiding any need to refer to a separate methodological section within this thesis.

2) Students', families' and teachers' perceptions of language learning —related not only to both environmental and additional languages but also to CLIL implementation— through

measuring students' and families' attitudes and motivations as well as families' and teachers' opinions. The instruments used were the questionnaires described in section 6.5. This analysis is related to research questions RQ1, RQ2 and RQ3 (see section 6.3.).

### 7.1.1. Students

As mentioned in section 6.4.1. the two groups of students that made up the sample and took part in the tests were academically homogeneous regarding their command of English, Galician and Spanish, as well as their content knowledge. I carried out statistical tests to verify homogeneity of the sample:

1) Considering their competence in English, both cohorts were similar as regards their CEFR level, which was measured and elicited through two placement tests (see section 6.5.1.1.). In order to verify that the starting point regarding the level of English according to the CEFR was the same for both cohorts —i.e. with a view to contrasting whether the distribution of students according to the CEFR was the same for both groups — I used the Pearson's Chi-squared test:  $X^2 = 2.204$ ,  $df = 3$ ,  $p\text{-value} = 0.5312$ . The  $p$ -value was over 0.05, so the null hypothesis of no difference in probability distribution regarding their level of English according to the CEFR could not be rejected.

2) As explained in section 6.5.1.1., during the project, the students' competence in the foreign language (English) was measured three times via KET (A2 level, delivered two times) and PET (B1 level, delivered once) tests —Cambridge English Key and Preliminary exams—, comprising reading, writing, listening and speaking. The first KET exam was delivered in September 2012 (as explained in section 6.5.1.1). In order to verify that the distribution of global results in the first English test was the same for both cohorts, as happened with the placement tests above, I used the Wilcoxon Rank Sum test:  $W = 196$ ,  $p\text{-value} = 0.3051$ . The  $p$ -value was over 0.05, thus it was impossible to reject the null hypothesis of no difference in probability distribution regarding the global results of both cohorts in the English test in the first measurement.

3) As explained in section 6.5.1.2., the students' competence in Galician and Spanish was measured three times via official standardised tests. Intermediate level tests were administered twice, and advanced level tests were delivered at the end of the project. With a view to verifying that the distribution of global results in the first Galician and Spanish tests was the same for both cohorts, as happened with the English tests above, I used the Wilcoxon Rank Sum test. The result for Galician was  $W = 190.5$ ,  $p\text{-value} = 0.2481$ , whereas the result for Spanish was  $W = 185$ ,  $p\text{-value} = 0.1989$ . In both cases, the  $p\text{-value}$  was over 0.05, thus it was impossible to reject the null hypothesis of no difference in probability distribution regarding the global results of both cohorts in the first Galician and Spanish tests in the first measurement.

4) With regard to their academic performance in Social Science, a test especially designed to measure previous knowledge (see section 6.5.1.3. below) was delivered by Social Science teachers in both groups. In order to verify that the distribution of results in the previous knowledge test was the same for both cohorts, I used the Wilcoxon Rank Sum test:  $W = 250$ ,  $p\text{-value} = 0.8212$ . Therefore, no statistically significant differences were observed in Social Science.

Considering the results of the tests above, both cohorts were homogeneous regarding competence in English, Galician, Spanish and content knowledge at the start of the programme in 2012.

### **7.1.1.1. English Language**

In this section I will analyse the data related to the research question number 4:

**RQ4: Are there any significant differences between CLIL and non-CLIL students regarding foreign language learning on a longitudinal basis?**

As said above, three tests were used for measuring students' competence in English: KET (A2 level, delivered two times) and PET (B1 level, delivered once) tests —Cambridge

English Key and Preliminary exams—, comprising reading, writing, listening and speaking. Tests were adapted in terms of marking—every skill weighted by 100%—. As seen in section 6.4.1., the sample was formed by the 44 students divided in two groups: the CLIL group, formed by 20 students; and the non-CLIL cohort, made up of 24 learners.

For the sake of analysis, I carried out a number of statistical operations with a view to determining whether differences between cohorts were significant or not. By using the students' results I calculated the main descriptive statistical operations for both groups in the different moments. Calculations were made considering the students' global mark as well as their result in every single skill measured.

#### 7.1.1.1.1. English global competence

The following table shows the results of descriptive statistical operations regarding global competence:

Summary of the main descriptive statistical operations. English Global Mark							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	18.33	26.18	36.1	39.7	53.89	73.33
	June 2013	38.32	53.87	59.32	62.56	75.18	88.9
	June2014	57.33	64.9	73.8	74.63	83.17	95.23
NON-CLIL	September 2012	22.67	32	43	44.46	53	73.33
	June 2013	24.45	44.29	55.18	55.57	65.57	88.3
	June2014	29.25	53.41	63.2	64.11	76.47	93.55

Table 48. Descriptive statistical calculations. English global mark

The calculated mean of students' results showed a progressive increase over the two years both in the CLIL group— 39.7, 62.56 and 74.63— and in the non-CLIL cohort— 44.46, 55.57 and 64.11—. Progression for the better seemed to take place in both groups despite the fact that the test used in year two was of a higher level. Furthermore, although both groups showed a positive progression, the CLIL cohort seemed to have made progress to a greater extent (Wilcoxon Rank Sum test with continuity correction: p-value = 0.00008688). This was also shown in the rest of the calculations in the table above. For

instance, as regards the third quartile, i.e. the value over which we find 25% of the elements of the sample, the progression of both cohorts in the three moments also became apparent: from 53.89 to 83.17 in the CLIL group; and from 53 to 76.47 in the non-CLIL cohort. Considering the median, i.e. the value separating the upper half from the lower half of a dataset, 50% of the CLIL group were above 73.8 by the end of the programme, whereas the median was 63.2 in the case of their non-CLIL counterparts. These results underpinned the statement that both groups seemed to improve their global competence in English and that progress was higher in the CLIL group. The following box plot shows a summary of the values above for both cohorts in the three different moments:

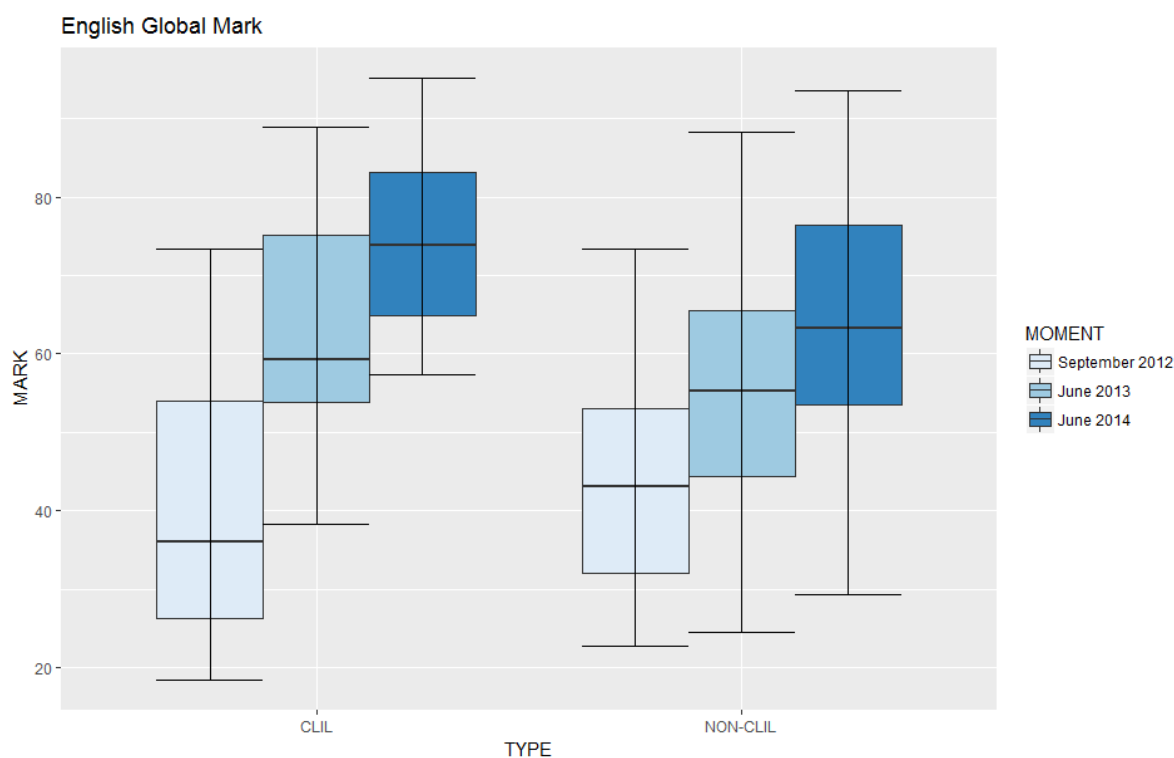


Figure 18. Box plot representing global results in English for both cohorts in the different moments

After calculating the descriptive operations above, I decided to use some statistical tests with a view to determining whether the results were the same in the three moments or not. Prior to making a decision about which statistical tests to use, I tested for normality through the Shapiro-Wilks test, which rejects the hypothesis of normality when the p-value is less than or equal to 0.05. The test failed normality in some of the cases and this was the reason for me resorting to a nonparametric test in order to carry out comparisons between the three measurements: the Friedman Rank Sum Test.



The Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It is useful when one group is measured three or more times or when samples do not need to be normally distributed. The null hypothesis being contrasted was that the students' results in each of the three moments had the same probability distribution as opposed to the alternative hypothesis that the probability distribution in at least one of the moments was different from the rest. In other words, this test allowed me to prove that the probability distribution of the results for both CLIL and non-CLIL cohorts was either the same in the three moments or different in at least one of them.

As regards the CLIL cohort, this was the result of the test regarding global competence in English: Friedman chi-squared = 39.519,  $df = 2$ ,  $p\text{-value} = 2.622e\text{-}09$ . Scientific notation (also referred to as standard form or standard index form) has been used to represent the  $p$ -value, which is too small to be conveniently written in decimal form. The  $p$ -value was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. Thereafter, and in order to determine which moments revealed differences, a post-hoc analysis was carried out. It consisted of pairwise comparisons using the Wilcoxon Signed Rank test and the Bonferroni  $p$ -adjustment method. In this case, significant differences were found between the three moments: September 2012 and June 2013 (0.00043); September 2012 and June 2014 (0.00029); and June 2013 and June 2014 (0.00029).

As regards the non-CLIL cohort, this was the result of the test for their global competence in English in the three moments: Friedman chi-squared = 43.66,  $df = 2$ ,  $p\text{-value} = 3.307e\text{-}10$  (scientific notation used). The  $p$ -value was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. Therefore, the same post-hoc analysis was undertaken. As happened with the CLIL cohort, significant differences between the three time periods compared above were revealed with the non-CLIL group: September 2012 and June 2013 ( $5.8e\text{-}05$ ); September 2012 and June 2014 ( $5.8e\text{-}05$ ); and June 2013 and June 2014 (0.00026).

The statistical analyses carried out —the descriptive statistical operations, the Wilcoxon Rank Sum test, the Friedman test and the post-hoc analysis through pairwise comparisons using the Wilcoxon Signed Rank test—confirmed 1) that both groups improved their global competence in English both in June 2013 and June 2014; and 2) that, despite the fact that both cohorts were initially matched, improvement was higher in the CLIL group over the two years.

After this, the same statistical operations were carried out for every skill analysed.

#### 7.1.1.1.2. English listening

The following table shows the results of descriptive statistical operations regarding listening:

Summary of the main descriptive statistical operations. English Listening							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	20	25	45.5	43.9	60.5	71
	June 2013	43	54.4	64.25	67.01	80	90
	June2014	59	69	79	78.64	89.75	100
NON-CLIL	September 2012	24	39	46	47.38	57	80
	June 2013	30	50	59.95	58.91	62.52	93
	June2014	36.4	59.25	64.95	67.87	80.3	96.1

Table 49. Descriptive statistical calculations. English listening

With regard to listening, the calculated mean of students' results showed a progressive increase over the two years both in the CLIL group— 43.9, 67.01 and 78.64— and in the non-CLIL cohort— 47.38, 58.91 and 67.87—. A significant improvement seemed to take place in both groups despite the fact that the test used in year two was of a higher level. Furthermore, although both groups showed a positive progression, the CLIL cohort showed a greater one (Wilcoxon Rank Sum test with continuity correction: p-value: 0.001857). This was also shown in the rest of the calculations in the table above. For

instance, as regards the third quartile, the improvement of both cohorts in the three moments also became apparent: from 60.5 to 89.75 in the CLIL group; and from 57 to 80.3 in the non-CLIL cohort. Considering the median, 50% of the CLIL group's listening skill was above 79 by the end of the programme, whereas the median was 64.95 in the case of their non-CLIL counterparts. These results underpinned the statement that both groups seemed to improve their listening skill in English and that the values were higher in the CLIL group. The following box plot shows a summary of the values above for both cohorts in the three different moments:

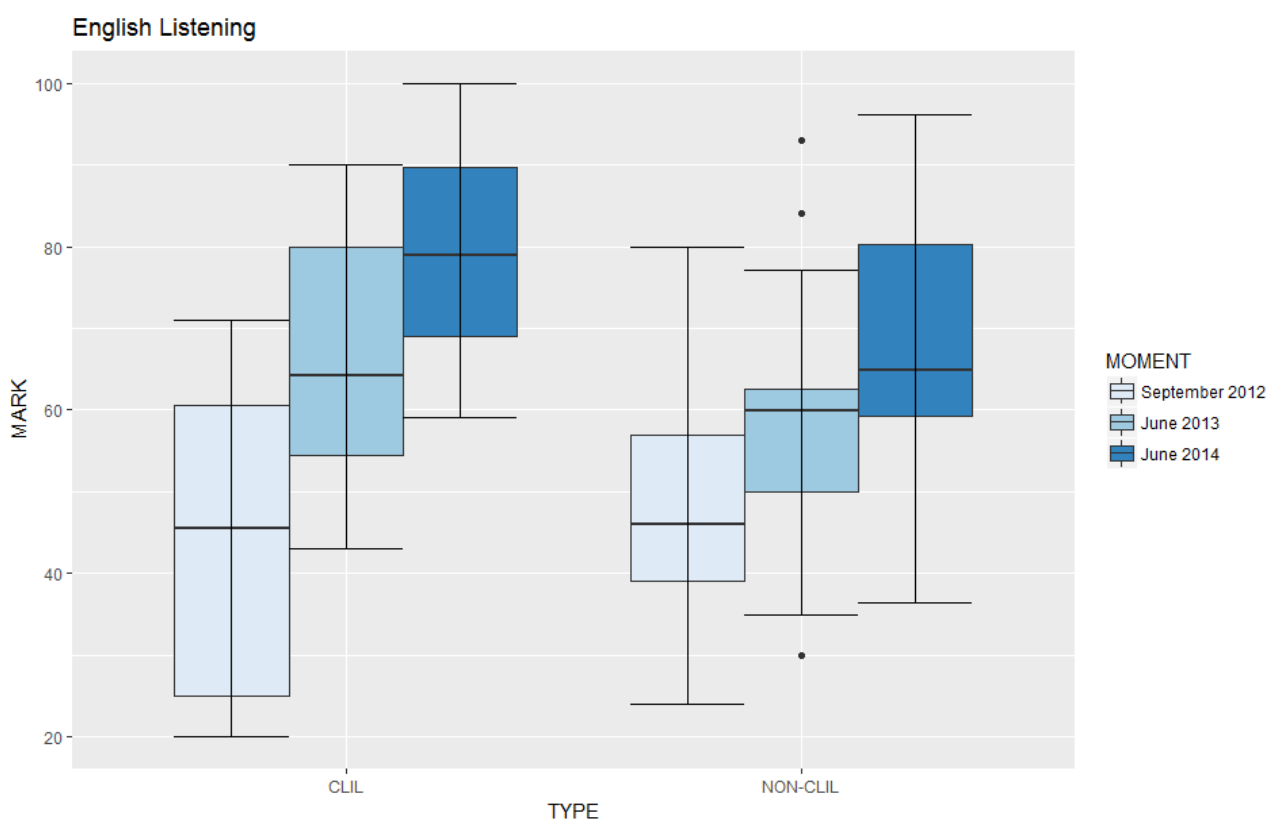


Figure 19. Box plot representing results in English listening for both cohorts in the different moments

Similarly, as with global competence, I tested for normality through the Shapiro-Wilks test, which failed normality in some of the cases and this was the reason for me resorting to the Friedman Rank Sum Test.

As regards the CLIL cohort, this was the result of the test regarding listening in English: Friedman chi-squared = 39.519, df = 2, p-value = 2.622e-09 (scientific notation used). As happened with the analysis of global competence above, the post-hoc analysis showed

significant differences between the three moments: September 2012 and June 2013 (0.00043); September 2012 and June 2014 (0.00029); and June 2013 and June 2014 (0.00029).

As to the non-CLIL cohort, the result of the statistical test for their listening skill in English also turned out to be significant: Friedman chi-squared = 41.255, df = 2, p-value = 1.1e-09 (scientific notation used). The results of the post-hoc analysis revealed statistically significant differences were found between the three measurements with the non-CLIL group: September 2012 and June 2013 (0.00013); September 2012 and June 2014 (5.8e-05); and June 2013 and June 2014 (0.00017).

As with results regarding global competence, the statistical analyses carried out confirmed 1) that both groups improved their listening in English both in June 2013 and June 2014; and 2) that improvement was higher in the CLIL group over the two years.

#### 7.1.1.1.3. English reading

The following table shows the results of descriptive statistical operations regarding reading:

Summary of the main descriptive statistical operations. English Reading							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	13	22.72	37.36	37.51	50	79
	June 2013	36.36	48.76	53.15	59.16	76.5	90
	June2014	49.9	60.15	69.45	70.78	81	90.6
NON-CLIL	September 2012	18.18	24.99	29.99	35.22	44.09	72.72
	June 2013	20	34.99	43	48.25	58.85	90
	June2014	18	39.17	58.5	57.55	73.9	94

Table 50. Descriptive statistical calculations. English reading

As regards reading, the calculated mean of students' results showed a significant improvement over the two years both in the CLIL group— 37.51, 59.16 and 70.78— and in the non-CLIL cohort— 35.22, 48.25 and 57.55—. Again, as happened with the results

shown in global competence and listening, although both groups showed a positive progression, the CLIL cohort outperformed their non-CLIL counterparts over the two years (Wilcoxon Rank Sum test with continuity correction: p-value: 0.002015). This was also shown in the rest of the calculations in the table above. For instance, as regards the third quartile, the improvement of both cohorts in the three moments also became apparent: from 50 to 81 in the CLIL group; and from 44.09 to 73.9 in the non-CLIL cohort. Considering the median, 50% of the CLIL group's reading skill was above 69.45 by the end of the programme, whereas the median was 58.5 in the case of their non-CLIL counterparts. These results sustained the argument that both groups seemed to improve their reading skill in English and that improvement was higher in the CLIL group. The following box plot shows a summary of the values above for both cohorts in the three different moments:

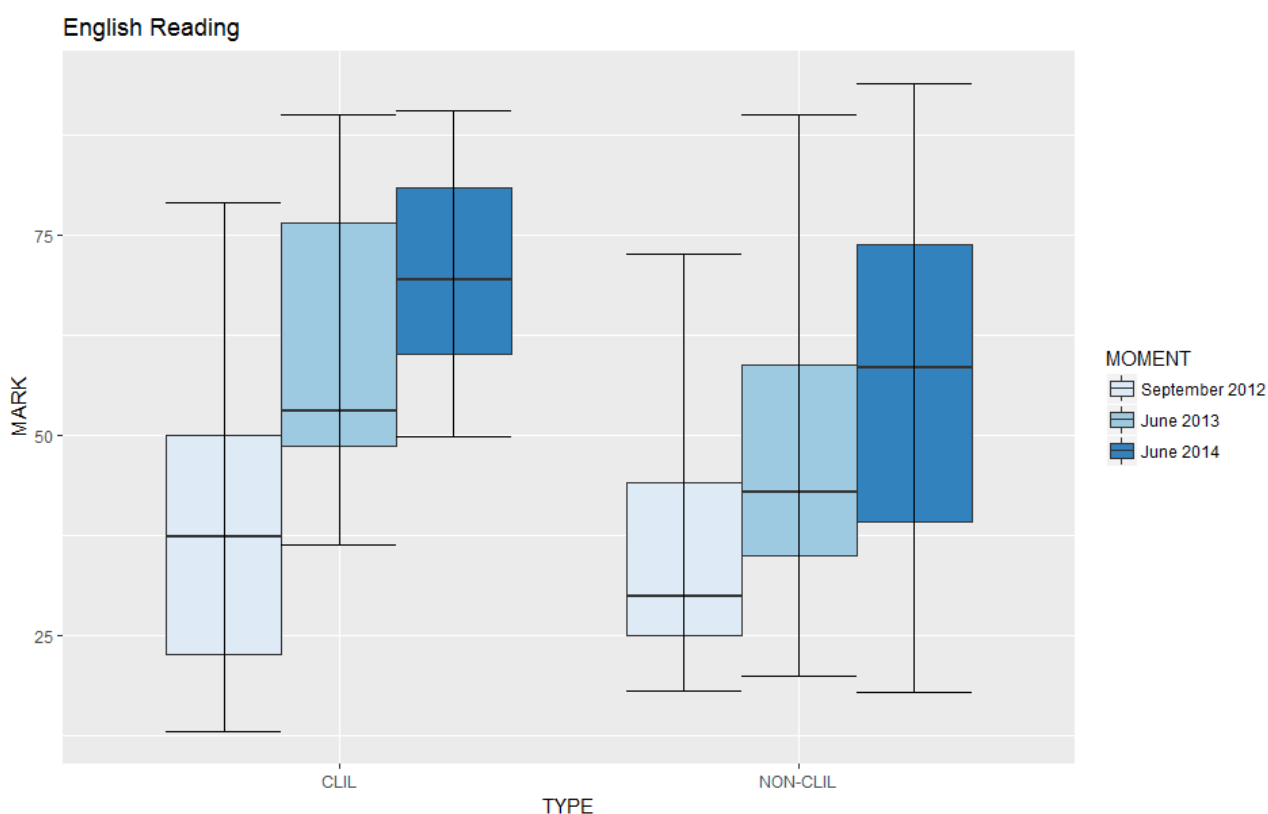


Figure 20. Box plot representing results in English reading for both cohorts in the different moments

I followed the same procedure as the one I used for the analysis of global competence and listening. As regards the CLIL cohort, this was the result of the statistical test regarding reading in English: Friedman chi-squared = 39, df = 2, p-value = 3.398e-09 (scientific

notation is used to express the p-value). The post-hoc analysis was performed, and as happened with the analysis of global competence and listening above, it revealed statistically significant differences between the three measurements: September 2012 and June 2013 (0.00043); September 2012 and June 2014 (0.00029); and June 2013 and June 2014 (0.00043).

As to the non-CLIL cohort, this was the result of the Friedman Rank Sum test for their reading skill in English in the three moments: Friedman chi-squared = 31.347, df = 2, p-value = 1.56e-07 (scientific notation used). Similarly, as happened with the CLIL group, the post-hoc analysis showed statistically significant differences between the three moments with the non-CLIL group: September 2012 and June 2013 (9.7e-05); September 2012 and June 2014 (8.5e-05); and June 2013 and June 2014 (0.00026).

In the same manner as in results regarding global competence and listening, the statistical analyses carried out confirmed 1) that both groups showed an improvement in their reading skill in English both in June 2013 and June 2014; and 2) that the CLIL group improved to a greater extent.

#### 7.1.1.1.4. English writing

The following table shows the results of descriptive statistical operations regarding writing:

Summary of the main descriptive statistical operations. English Writing							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	18	23.75	31	37.69	50	70
	June 2013	26.5	48.74	62.2	61.52	79.03	90
	June2014	56	69	70.55	74.48	80.65	98.2
NON-CLIL	September 2012	20	26.75	40	42.79	60	80
	June 2013	18.9	39.75	50	53.42	63.9	92
	June2014	22.1	49	61.15	61.4	77.25	92.6

Table 51. Descriptive statistical calculations. English writing

With regard to writing, the calculated mean of students' results showed a significant improvement over the two years both in the CLIL group— 37.69, 61.52 and 74.48— and in the non-CLIL cohort —42.79, 53.42 and 61.4—. Again, as happened with the results shown in global competence, listening and reading, although both groups showed a positive progression, the CLIL cohort showed a higher improvement than their non-CLIL counterparts (Wilcoxon Rank Sum test with continuity correction: p-value: 0.0001544). This was also shown in the rest of the calculations in the table above. For instance, as regards the third quartile, the improvement of both cohorts in the three moments also became apparent: from 50 to 80.65 in the CLIL group; and from 60 to 77.25 in the non-CLIL cohort. Considering the median, 50% of the CLIL group's writing skill was above 70.55 by the end of the programme, whereas the median was 61.15 in the case of their non-CLIL counterparts. These results back up the statement that both groups seemed to improve their writing skill in English and that, as happened with the skills analysed above, the values were higher in the CLIL group. The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

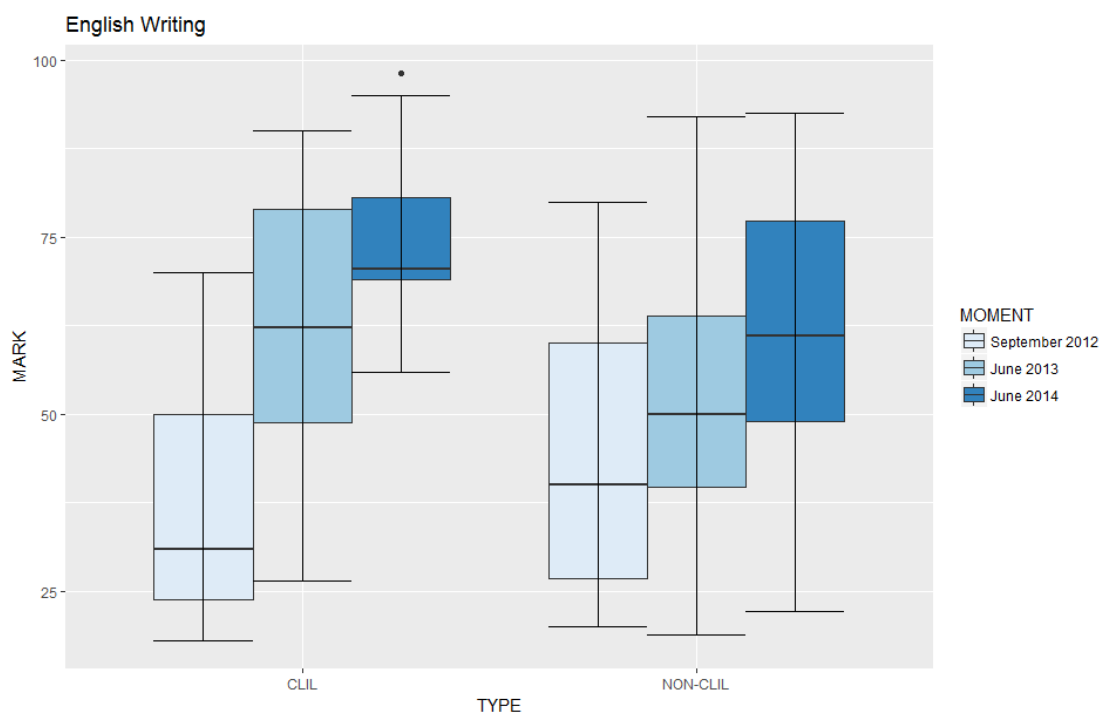


Figure 21. Box plot representing results in English writing for both cohorts in the different moments

As regards the CLIL cohort, the Friedman Rank Sum test (Friedman chi-squared = 39.519, df = 2, p-value = 2.622e-09) showed that there existed statistically significant differences in

the probability distribution in the three moments regarding the writing skill. As happened with the analysis of global competence, listening and reading above, the post-hoc analysis revealed significant differences between the three moments as regards the writing skill: September 2012 and June 2013 (0.00043); September 2012 and June 2014 (0.00029); and June 2013 and June 2014 (0.00043).

As to the non-CLIL cohort, this was the result of the statistical test for their writing skill in English in the three moments: Friedman chi-squared = 24.021, df = 2, p-value = 6.08e-06. The post-hoc analysis also revealed statistically significant differences in the three measurements: September 2012 and June 2013 (0.00029); September 2012 and June 2014 (0.00014); and June 2013 and June 2014 (0.00246).

As with results regarding global competence, listening and reading, the statistical analyses carried out confirmed 1) that both groups showed an improvement in their writing skill in English both in June 2013 and June 2014; and 2) that the CLIL group made progress to a greater extent over the two years.

#### 7.1.1.1.5. English speaking

The following table shows the results of descriptive statistical operations regarding speaking:

Summary of the main descriptive statistical operations. English Speaking							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	18.33	26.18	36.1	39.7	53.89	73.33
	June 2013	38.32	53.87	59.32	62.56	75.18	88.9
	June2014	57.33	64.9	73.8	74.63	83.17	95.23
NON-CLIL	September 2012	22.67	32	43	44.46	53	73.33
	June 2013	24.45	44.29	55.18	55.57	65.57	88.3
	June2014	29.25	53.41	63.2	64.11	76.47	93.55

Table 52. Descriptive statistical calculations. English speaking



The calculated mean of students' results showed a progressive increase over the two years both in the CLIL group —39.7, 62.56 and 74.63— and in the non-CLIL cohort— 44.46, 55.57 and 64.11—. Both cohorts seemed to improve in the course of time despite the fact that the test used in year two was a higher level one. Furthermore, although both groups showed a positive progression, the CLIL cohort seemed to have made progress to a greater extent (Wilcoxon Rank Sum test with continuity correction:  $p$ -value = 0.00008688). This was also shown in the rest of the calculations in the table above. These results underpinned the statement that both groups seemed to improve their speaking skill in English and that improvement was higher in the CLIL group. The following box plot shows a summary of the values of the results for speaking (above) for both cohorts in the three different moments:

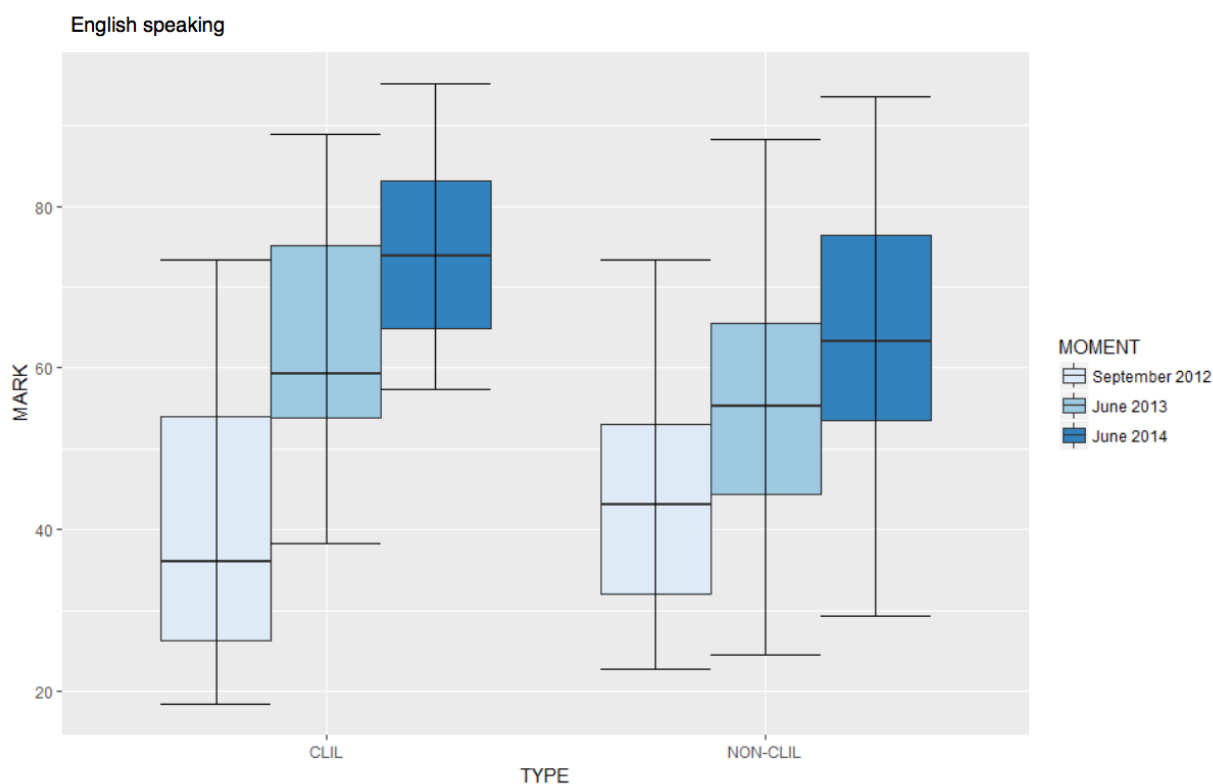


Figure 22. Box plot representing results in English speaking for both cohorts in the different moments

As regards the CLIL cohort, this was the result of the Friedman Rank Sum test regarding speaking in English: Friedman chi-squared = 39.519,  $df = 2$ ,  $p$ -value = 2.622e-09. The post-hoc analysis revealed significant differences between the three moments: September

2012 and June 2013 (0.00043); September 2012 and June 2014 (0.00029); and June 2013 and June 2014 (0.00029).

As to the non-CLIL cohort, the Friedman Rank Sum test showed the following result: Friedman chi-squared = 43.66, df = 2, p-value = 3.307e-10. Significant differences in the three moments were confirmed by the post-hoc analyses: September 2012 and June 2013 (5.8e-05); September 2012 and June 2014 (5.8e-05); and June 2013 and June 2014 (0.00026).

As with results regarding global competence, listening, reading and writing, the statistical analyses performed revealed 1) that both groups showed an improvement in their speaking skill in English both in June 2013 and June 2014; and 2) that the CLIL group showed a higher improvement than their non-CLIL counterpart over the two years.

In sum, both cohorts showed a significant improvement in English in terms of global competence, listening, reading, writing and speaking. Nonetheless, the CLIL group's improvement was significantly higher.

		ENGLISH				
		GLOBAL COMPETENCE	LISTENING	READING	WRITING	SPEAKING
CLIL		+	+	+	+	+
NON-CLIL		+	+	+	+	+
Longitudinal progress: positive (+), negative (–) or no progress (=)						

Table 53. Longitudinal progress. English

### 7.1.1.2. Galician Language

In this section I will analyse the data related to the research question number 5:

**RQ5: Are there any significant differences between CLIL and non-CLIL students regarding L1 learning on a longitudinal basis?**

In section 6.5.1.2. I described the tests used for measuring students' competence in Galician. During the project, the students' competence in Galician was measured three times via official standardised tests from Galician *Escuelas Oficiales de Idiomas*, state-run language schools long established in Spain and completely unknown abroad that are officially accredited to issue language competence certificates in different levels.

Intermediate level tests were administered twice and advanced level tests were delivered at the end of the project. Tests comprised the following parts, all of them weighted by 100% for the sake of marking:

- The listening tests (35 minutes) comprised 4 comprehension tasks featuring multiple-choice, true-false, short answers and matching.
- The reading tests (60 minutes) were made up of 4 comprehension tasks as well, featuring text-title matching, text-information matching, true-false and multiple choice answers.
- The writing tests (75-90 minutes) featured writing opinions, letters, emails, essays, etc.
- The speaking tests (2 minutes per task) featured dialogues between pairs.

As seen with English in the previous section, for the sake of analysis, I carried out a number of statistical operations with a view to determining whether differences between

cohorts were significant or not. By using the students' results I calculated the main descriptive statistical operations for both groups in the different moments. Calculations were made considering the students' global mark as well as their result in every single skill measured.

#### 7.1.1.2.1. Galician global competence

The following table shows the results of descriptive statistical operations regarding global competence:

Summary of the main descriptive statistical operations. Galician Global Mark							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	41.48	61.78	66.88	66.14	73.08	82.25
	June 2013	52.28	70.14	72.39	72.38	77.23	87.65
	June2014	58.98	71.76	75.88	74.71	78.18	85.72
NON-CLIL	September 2012	55	63.63	69.83	69.94	75.42	86.5
	June 2013	53.7	65.06	69.8	70.59	76.02	85.83
	June2014	55.33	66.07	73.45	71.98	78.43	87.75

Table 54. Descriptive statistical calculations. Galician global mark

The calculated mean of students' results showed a progressive increase over the two years both in the CLIL group —66.14, 72.38 and 74.71— and in the non-CLIL cohort— 69.94, 70.59 and 71.98—. Improvement seemed to take place in both groups despite the fact that the test used in year two was a higher level one (intermediate level tests were used in the first two measurements and advanced level tests were administered in the third moment). Furthermore, although both groups seemed to show a positive progression, the CLIL cohort's improvement was higher than their CLIL counterparts' (Wilcoxon Rank Sum test with continuity correction:  $p$ -value = 0.000003423). This was also shown in the rest of the calculations in the table above. For instance, as regards the third quartile, the progression of both cohorts in the three moments also became apparent: from 73.08 to 78.18 in the CLIL group; and from 75.42 to 78.43 in the non-CLIL cohort. Considering the median, 50% of the CLIL group were above 75.88 by the end of the programme, whereas

the median was 73.45 in the case of their non-CLIL counterparts. These results underpinned the statement that both groups improved their global competence in Galician and that improvement was higher in the CLIL cohort. Furthermore, descriptive statistical operations showed that changes seemed to take place differently in both cohorts. The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

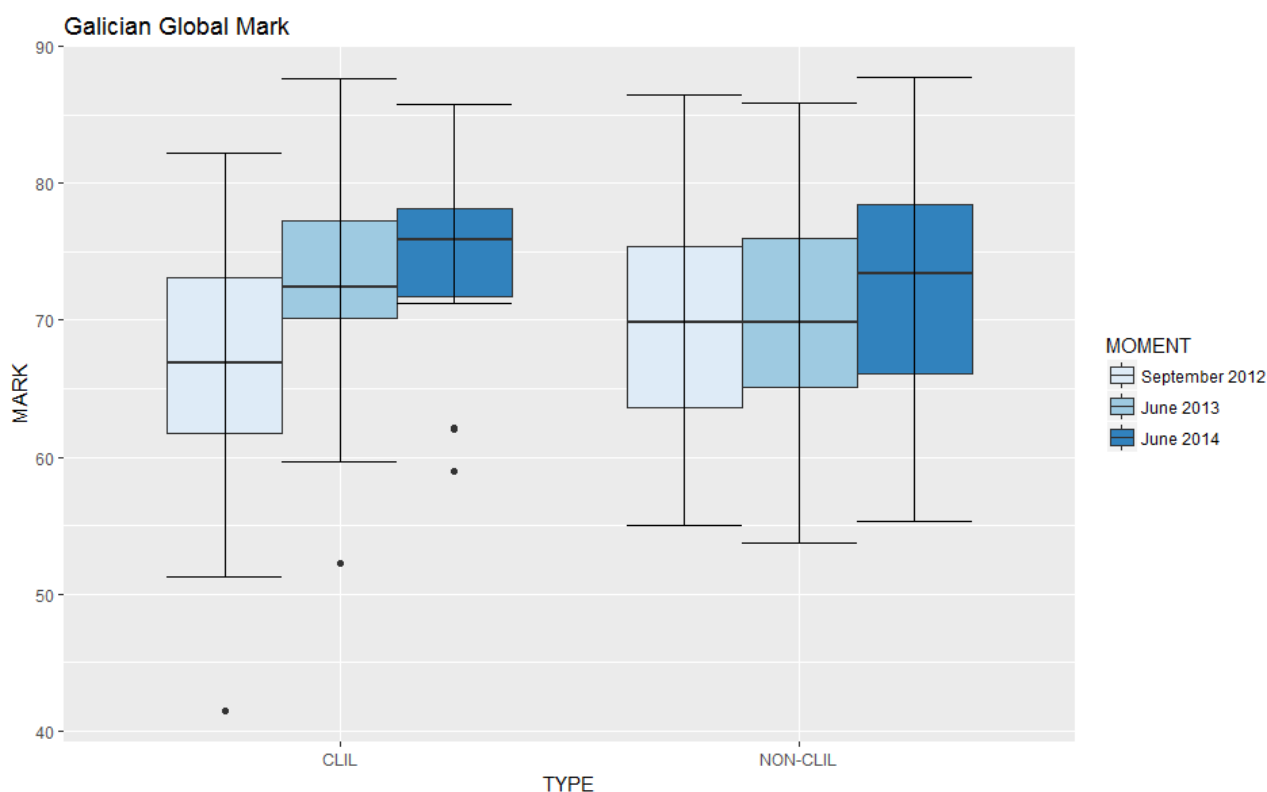


Figure 23. Box plot representing global results in Galician for both cohorts in the different moments

After calculating the descriptive operations above, as I did with English in the previous section, I tested for normality through the Shapiro-Wilks test, which failed normality in some of the cases and this was the reason for me resorting to the same nonparametric test in order to carry out comparisons between the three measurements: the Friedman Rank Sum Test. As explained above, this test allowed me to prove that the probability distribution of the results in Galician for both CLIL and non-CLIL cohorts was either the same in the three moments or different in at least one of them.

As regards the CLIL cohort, this was the result of the test regarding global competence in Galician: Friedman Chi-squared = 34.9,  $df = 2$ ,  $p\text{-value} = 2.64e-08$ . The  $p\text{-value}$  was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. Thereafter, and in order to determine which moments revealed differences, I carried out the same post-hoc analysis as with English, which consisted of pairwise comparisons using the Wilcoxon Signed Rank test and the Bonferroni  $p\text{-adjustment}$  method. In this case, the analysis revealed significant differences between the three moments: September 2012 and June 2013 (0.00029); September 2012 and June 2014 (0.00029); and June 2013 and June 2014 (0.00899).

As regards the non-CLIL cohort, this was the result of the Friedman Rank Sum test for their global competence in Galician: Friedman Chi-squared = 12.25,  $df = 2$ ,  $p\text{-value} = 0.002187$ . The post-hoc analysis only showed significant differences between September 2012 and June 2014 (0.021). No differences were revealed either between September 2012 and June 2013 (1.000) or between June 2013 and June 2014 (0.123).

The statistical analyses carried out —the descriptive statistical operations, the Wilcoxon Rank Sum test, the Friedman test and the post-hoc analysis through pairwise comparisons using the Wilcoxon Signed Rank test— confirmed 1) that both groups improved their global competence in Galician; 2) that the CLIL cohort's improvement was higher than the non-CLIL group over the two years; and 3) that the CLIL students showed an improvement in both June 2013 and June 2014, whereas the non-CLIL cohort only showed an improvement after year two.

After analysing results regarding global competence in Galician, the same statistical operations were undertaken for every skill measured: listening, reading, writing and speaking.

### 7.1.1.2.2. Galician listening

Summary of the main descriptive statistical operations. Galician Listening							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	56	75	80	78.8	88	92
	June 2013	59.3	82.75	88.15	84.88	90	94
	June2014	60	77.4	85.85	82.22	90	94.3
NON-CLIL	September 2012	65	73.75	78	77.88	81.5	97
	June 2013	65	72.4	77	78.01	85.8	93
	June2014	60	70.9	75.95	77.16	84.48	95.6

Table 55. Descriptive statistical calculations. Galician listening

With regard to listening, the calculated mean of students' results seemed to show an improvement in the CLIL group's listening skill in Galician after one year in the programme —from 78.8 to 84.88—. From year one to year two, the results showed a slight drop to 82.22. On the other hand, the non-CLIL cohort seemed to have sustained the same results throughout the programme with no significant change —77.88, 78.01 and 77.16—. The median showed similar results: from 80 to 85.85 in the CLIL group and from 78 to 75.95 in their non-CLIL counterparts. Conversely, the third quartile showed results differently as an improvement seemed to have taken place in both cohorts: from 88 to 90 in the CLIL group; and from 81.5 to 84.48 in the non-CLIL cohort. All in all, the results in the different descriptive operations in the table above seemed to underpin the statement that only the CLIL group seemed to have improved their listening skill in Galician. Significant differences when comparing both groups were verified: Wilcoxon Rank Sum test with continuity correction:  $p\text{-value} = 0.0119$ . The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

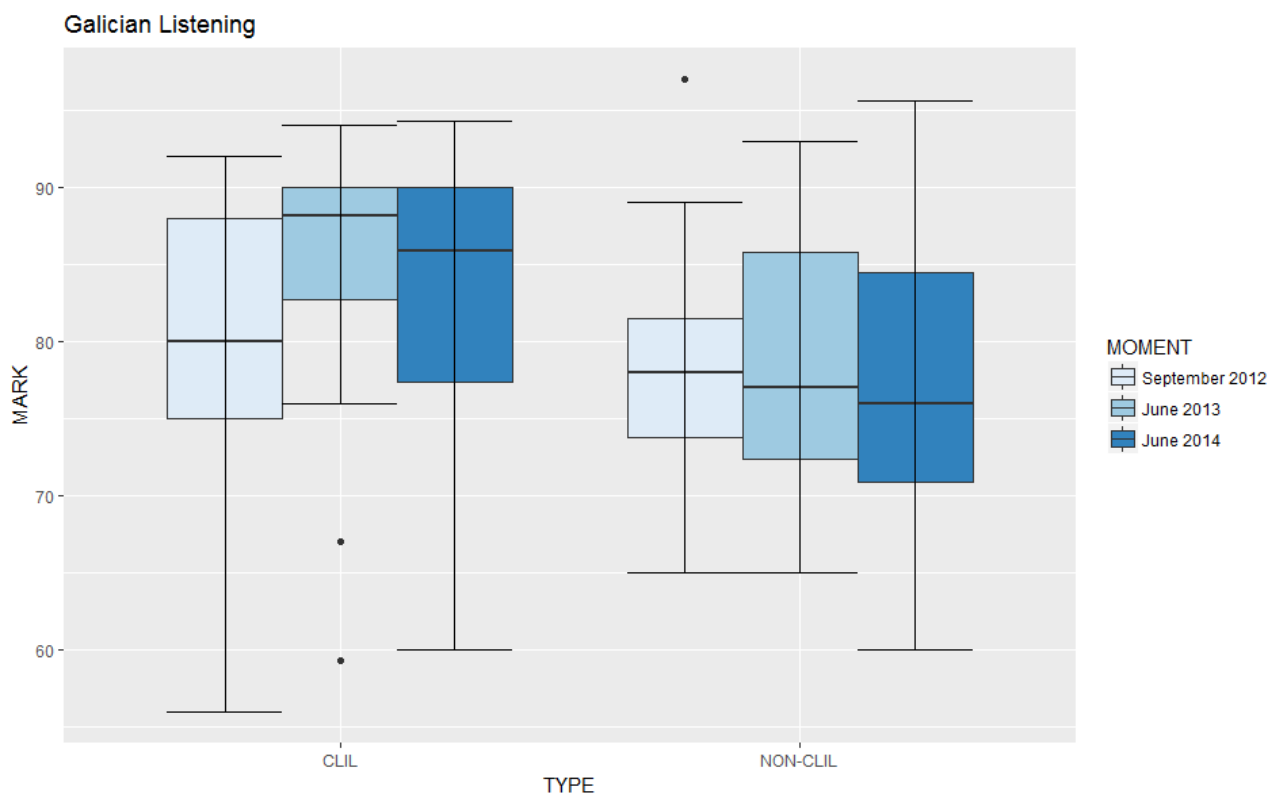


Figure 24. Box plot representing results in Galician listening for both cohorts in the different moments

Statistical calculations for analysis of probability distribution were necessary to verify whether there were changes in the different moments or not. As regards the CLIL cohort, this was the result of the Friedman Rank Sum test for listening in Galician: Friedman Chi-squared = 7.2468,  $df = 2$ ,  $p\text{-value} = 0.02669$ . The  $p\text{-value}$  was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. Thereafter, the post-hoc analysis revealed that significant differences only took place between September 2012 and June 2013 (0.00024), whereas no statistical significance was shown in the other two moments: neither between September 2012 and June 2014 (0.3781), nor between June 2013 and June 2014 (0.3354).

As to the non-CLIL cohort, the result of the Friedman Rank Sum test for their listening skill in Galician revealed no significance: Friedman Chi-squared = 1.2258,  $df = 2$ ,  $p\text{-value} = 0.5418$ . The  $p\text{-value}$  was over 0.05, thus the null hypothesis of no difference in probability distribution in the three moments could not be rejected. No significant change was found in the non-CLIL cohort in any of the moments.



The statistical analyses carried out confirmed 1) that only the CLIL students improved their listening skill in Galician; and 2) that their improvement only took place after year one.

### 7.1.1.2.3. Galician reading

Summary of the main descriptive statistical operations. Galician Reading							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	30.9	50	60.6	58.17	64.47	80
	June 2013	44	60	65.25	65.26	71.5	90.2
	June2014	50.5	61.6	70	68.94	75.7	90.9
NON-CLIL	September 2012	39	50.05	52.7	59.14	67	89.2
	June 2013	39.7	52.55	60.5	62.06	69.2	92.4
	June2014	40	54.92	61.2	63.89	69.93	92.3

Table 56. Descriptive statistical calculations. Galician reading

With regard to reading, the calculated mean of students' results seemed to reveal an improvement over the two years both in the CLIL group— 58.17, 65.26 and 68.94— and in the non-CLIL cohort— 59.14, 62.06 and 63.89—. Although both groups showed a positive progression, the CLIL cohort seemed to have outperformed their non-CLIL counterparts. (Wilcoxon Rank Sum test with continuity correction:  $p$ -value = 0.002013). This was also shown in the rest of the calculations in the table above. For instance, as regards the third quartile, the improvement of both cohorts in the three moments seemed to take place: from 64.47 to 75.7 in the CLIL group; and from 67 to 69.93 in the non-CLIL cohort. Considering the median, 50% of the CLIL group's reading skill was above 70 by the end of the programme, whereas the median was 61.2 in the case of their non-CLIL counterparts. These results sustained the argument that both groups seemed to improve their reading skill in Galician and that improvement was higher in the CLIL group. The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

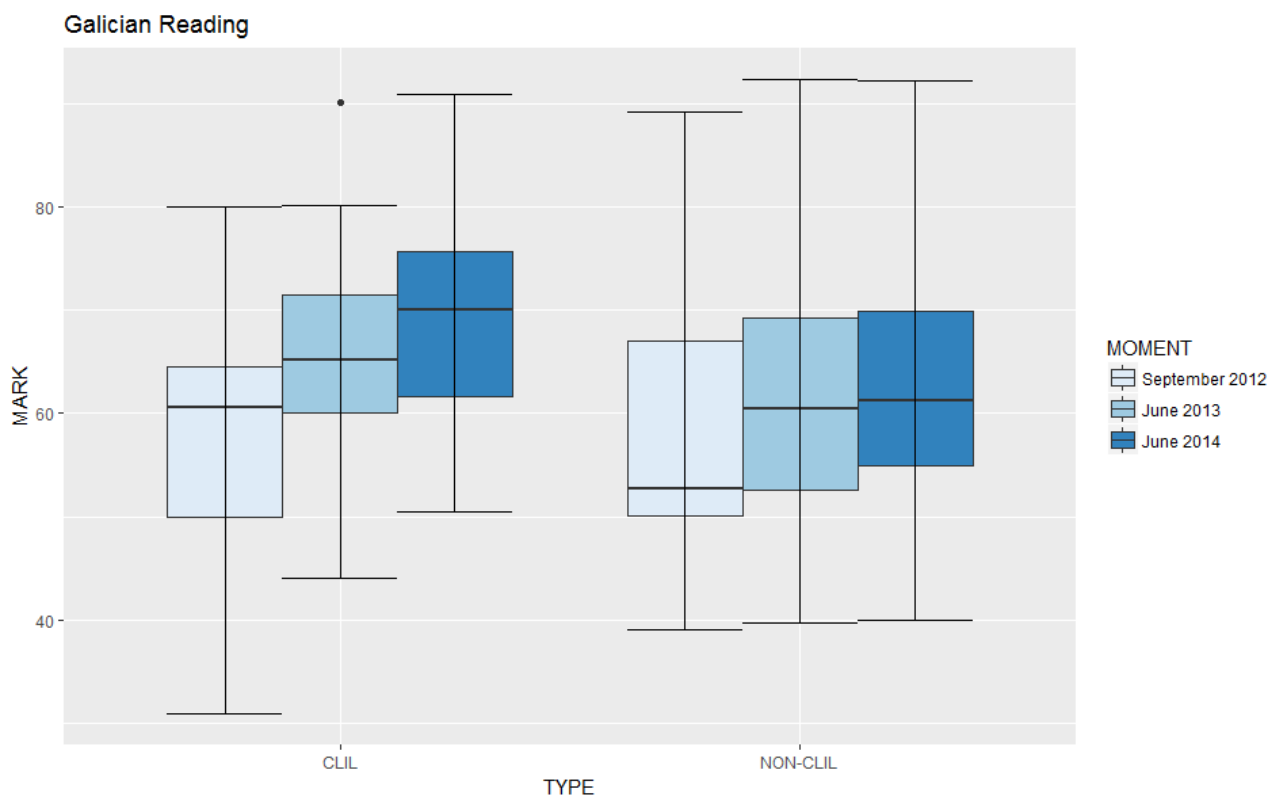


Figure 25. Box plot representing results in Galician reading for both cohorts in the different moments

Concerning the CLIL cohort, this was the result of the Friedman Rank Sum test regarding reading in Galician: Friedman Chi-squared = 29.026,  $df = 2$ ,  $p\text{-value} = 4.979e-07$ . The  $p$ -value was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. In this case, the post-hoc analysis revealed significant differences between the three measurements: September 2012 and June 2013 (0.00029); September 2012 and June 2014 (0.00064); and June 2013 and June 2014 (0.01076).

As to the non-CLIL cohort, the Friedman Rank Sum test regarding reading showed that the  $p$ -value was under 0.05: Friedman Chi-squared = 8.3333,  $df = 2$ ,  $p\text{-value} = 0.0155$ . The post-hoc analysis revealed that significant changes only happened between September 2012 and June 2013 (0.0217), and September 2012 and June 2014 (0.0055), whereas no statistically significant differences were found between June 2013 and June 2014 (0.3191).

The statistical analyses carried out confirmed 1) that both groups improved their reading skill in Galician; 2) that the CLIL cohort's improvement was higher over the two years; and

3) that the non-CLIL students showed a significant improvement only after year one (June 2013).

#### 7.1.1.2.4. Galician writing

Summary of the main descriptive statistical operations. Galician Writing							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	30	49	50	53.18	57.25	78
	June 2013	49	53	59	60.22	66	82
	June2014	53.4	60	65.7	67.78	76.08	90.3
NON-CLIL	September 2012	39	50.65	58.3	59.73	67.75	83
	June 2013	39.1	51.75	58	60.34	67.05	85
	June2014	40	54	60	63.15	71.32	90.4

Table 57. Descriptive statistical calculations. Galician writing

As regards writing, the calculated mean of students' results seemed to show an improvement over the two years both in the CLIL group— 53.18, 60.22 and 67.78— and in the non-CLIL cohort— 59.73, 60.34 and 63.15—. Nonetheless, although both groups seemed to show a positive progression, the CLIL cohort seemed to have made greater progress than their non-CLIL counterparts (Wilcoxon Rank Sum test with continuity correction:  $p$ -value =  $4.954e-05$ ). This was also shown in the rest of the descriptive calculations in the table above. For instance, as regards the third quartile, the improvement of both cohorts in the three moments took place: from 57.25 to 76.08 in the CLIL group; and from 67.75 to 71.32 in the non-CLIL cohort. Considering the median, 50% of the CLIL group's writing skill was above 65.7 by the end of the programme, whereas the median was 60 in the case of their non-CLIL counterparts. These results backed up the argument that both groups seem to have improved their writing skill in Galician and that improvement was higher in the CLIL group. The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

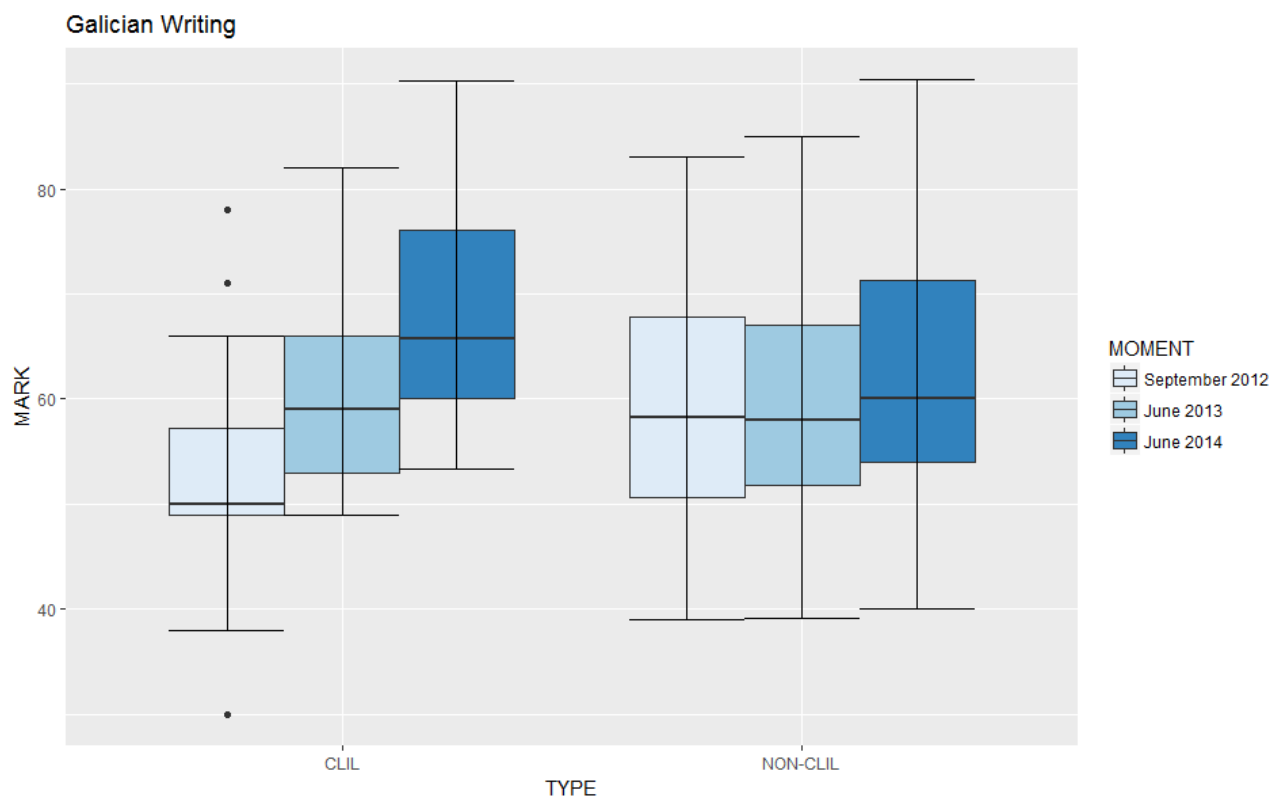


Figure 26. Box plot representing results in Galician writing for both cohorts in the different moments

With regard to the CLIL cohort, this was the result of the Friedman Rank Sum test for writing in Galician: Friedman Chi-squared = 38.1,  $df = 2$ ,  $p\text{-value} = 5.33e-09$ . The  $p$ -value was under 0.05, which showed there were differences in the probability distribution in the three measurements. As happened with the analysis of global competence and reading above, as regards writing in Galician in the CLIL group, the post-hoc analysis revealed significant changes took place between the three moments: September 2012 and June 2013 (0.00028); September 2012 and June 2014; (0.00029); and June 2013 and June 2014 (0.00045).

As to the non-CLIL cohort, this was the result of the Friedman Rank Sum test for the writing skill in Galician: Friedman Chi-squared = 3.8,  $df = 2$ ,  $p\text{-value} = 0.1496$ . The  $p$ -value was over 0.05, thus the null hypothesis of no difference in probability distribution in the three moments could not be rejected. As regards writing in Galician, no significant change was found in the non-CLIL cohort in any of the moments.

The statistical analyses carried out confirmed 1) that only the CLIL students improved their writing skill in Galician; and 2) that their improvement took place after year one and year two.

#### 7.1.1.2.5. Galician speaking

Summary of the main descriptive statistical operations. Galician Speaking							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	45	66	80	74.4	85.25	90
	June 2013	55	69.75	83	79.16	89.22	92
	June2014	60	71.5	84.5	79.9	86.25	95
NON-CLIL	September 2012	56	67.75	72.5	73.54	81.25	90
	June 2013	56	65.75	75.5	74.67	82.25	93
	June2014	60	71.5	76.5	76.62	83	95

Table 58. Descriptive statistical calculations. Galician speaking

The calculated mean of students' results showed a progressive increase over the two years both in the CLIL group —74.4, 79.16 and 79.9— and in the non-CLIL cohort —73.54, 74.67 and 76.62—. Both groups seemed to show a slight progression for the better. This was also shown in the rest of the calculations in the table above. For instance, as regards the third quartile, the slight improvement of both cohorts in the three moments also became apparent: from 85.25 to 86.25 in the CLIL group; and from 81.25 to 83 in the non-CLIL cohort. Considering the median, 50% of the CLIL group's speaking skill in Galician was above 84.5 by the end of the programme, whereas the median was 76.5 in the case of their non-CLIL counterparts. These results sustained the argument that both groups seemed to have improved their speaking skill in Galician. When contrasting both groups, no significant difference was found between them: Wilcoxon Rank Sum test with continuity correction:  $p\text{-value} = 0.05307$ . The following box plot shows a summary of the values of the results for speaking (above) for both cohorts in the three different moments:

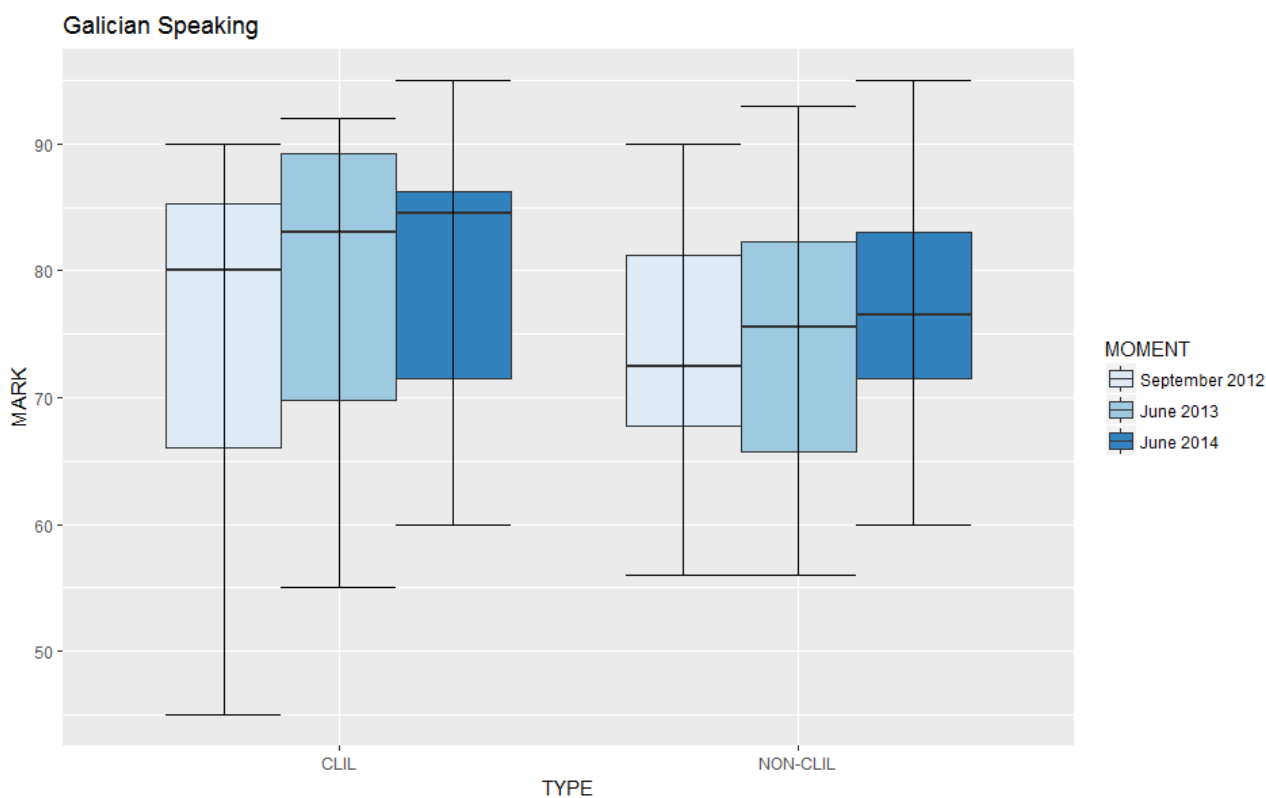


Figure 27. Box plot representing results in Galician speaking for both cohorts in the different moments

As regards the CLIL cohort, the result of the Friedman Rank Sum test regarding speaking in Galician was: Friedman Chi-squared = 11.352,  $df = 2$ ,  $p\text{-value} = 0.003427$ . The  $p\text{-value}$  was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. The post-hoc analysis revealed significant differences only between September 2012 and June 2013 (0.0025), and September 2012 and June 2014 (0.0134). No significant difference was found from June 2013 to June 2014 (1.000).

As regards the non-CLIL cohort, the result of the Friedman Rank Sum test for speaking in Galician did not reveal statistical significance: Friedman Chi-squared = 2.6304,  $df = 2$ ,  $p\text{-value} = 0.2684$ . As the  $p\text{-value}$  was over 0.05, the null hypothesis of no difference in probability distribution in the three moments could not be rejected. As regards speaking in Galician, no significant change was found in the non-CLIL cohort in any of the moments.

The statistical analyses carried out confirmed 1) that only the CLIL students improved their speaking skill in Galician; and 2) that their improvement only took place after year one.

Summarising, the CLIL cohort showed an overall improvement in Galician in the three moments as regards global competence, reading and writing. CLIL students attained better results in listening and speaking after the first year, but they did not show any improvement from year one to year two. Regarding the non-CLIL group, no significant changes were observed in relation to listening, writing and speaking. Changes were found in their global competence as well as in the reading skill, but those changes happened from moment one to moment two and no significant change was observed from moment two to moment three.

		GALICIAN				
		GLOBAL COMPETENCE	LISTENING	READING	WRITING	SPEAKING
CLIL		+	+ (ONLY AFTER YEAR ONE)	+	+	+ (ONLY AFTER YEAR ONE)
NON-CLIL		+ (ONLY AFTER YEAR TWO)	=	+ (ONLY AFTER YEAR ONE)	=	=
Longitudinal progress: positive (+), negative (–) or no progress (=)						

Table 59. Longitudinal progress. Galician

### 7.1.1.3. Spanish Language

In this section I will analyse the data related to the research question number 5 again, but this time in relation to the other co-official language in Galicia — Spanish—:

**RQ5: Are there any significant differences between CLIL and non-CLIL students regarding L1 learning on a longitudinal basis?**

In section 6.5.1.2. I described the tests used for measuring students' competence in Spanish. During the project, the students' competence in Spanish was measured three times via official standardised tests from Galician *Escuelas Oficiales de Idiomas*, as was also the case with the Galician language tests.

Intermediate level tests were administered twice and advanced level tests were delivered at the end of the project (see samples in Appendix A). Tests comprised the following parts, all of them weighted by 100% for the sake of marking:

- The listening tests (35 minutes) comprised 4 comprehension tasks featuring multiple-choice, true-false, short answers and matching.
- The reading tests (60 minutes) were made up of 4 comprehension tasks as well, featuring text-title matching, text-information matching, true-false and multiple choice answers.
- The writing tests (75-90 minutes) featured writing opinions, letters, emails, essays, etc.
- The speaking tests (2 minutes per task) featured dialogues between pairs.

As seen with English and Galician in the previous section, for the sake of analysis, I carried out a number of statistical operations with a view to determining whether differences between cohorts were significant or not.

#### 7.1.1.3.1. Spanish global competence

The following table shows the results of descriptive statistical operations regarding global competence:

Summary of the main descriptive statistical operations. Spanish Global Mark							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	34.88	50.7	57.35	57.26	59.94	80.5
	June 2013	49.62	57.36	60.32	61.86	65.19	83.32
	June2014	55.9	62.32	67.58	68.56	72.06	88.72
NON-CLIL	September 2012	40.27	55.21	60.08	61.89	71.38	82.25
	June 2013	43.33	52.06	60.33	60.61	66.83	83.5
	June2014	41.87	52.53	62.58	62.66	72.58	80.5

Table 60. Descriptive statistical calculations. Spanish global mark



The calculated mean of students' results showed a progressive increase over the two years in the CLIL group —57.26, 61.86 and 68.56—. The non-CLIL cohort's results, on the other hand, did not show a clear improvement, although they seemed to be sustained in the course of the three years —61.89, 60.61 and 62.66—. The rest of the calculations in the table above showed the same results. For instance, as regards the third quartile, the change observed in both cohorts in the three moments was different: from 59.94 to 72.06 in the CLIL group; and from 71.38 to 72.58 in the non-CLIL cohort. These results supported the statement that progress related to global competence in Spanish was higher in the CLIL cohort (Wilcoxon Rank Sum test with continuity correction:  $p$ -value = 0.0001056). The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

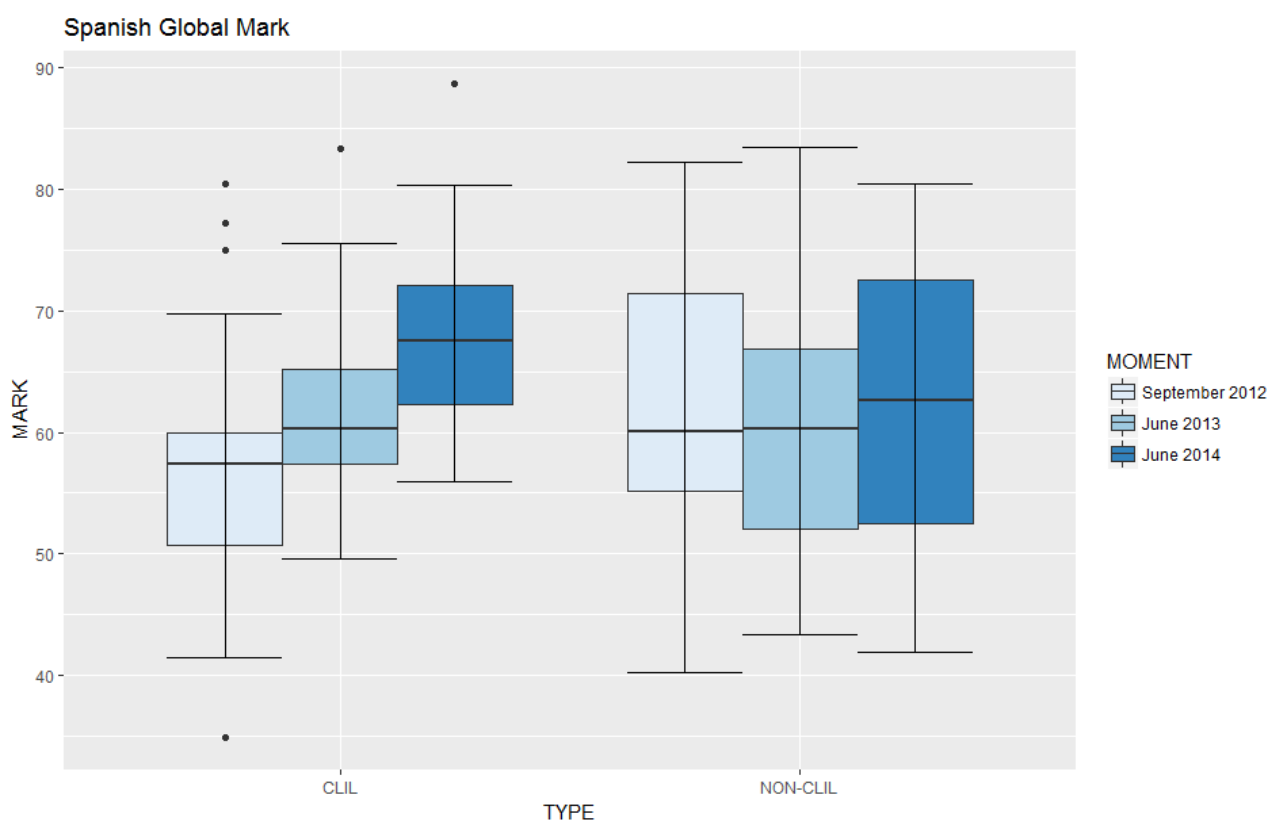


Figure 28. Box plot representing global results in Spanish for both cohorts in the different moments

As regards the CLIL cohort, this was the result of the Friedman Rank Sum test regarding global competence in Spanish: Friedman Chi-squared = 35.772,  $df = 2$ ,  $p$ -value = 1.707e-08. The  $p$ -value was under 0.05, thus rejecting the null hypothesis of no difference

in probability distribution in the three moments. Thereafter, and in order to determine which moments revealed differences, I carried out the same post-hoc analysis as the one performed with English and Galician. In this case, it revealed significant differences between the three moments: September 2012 and June 2013 (0.00144); September 2012 and June 2014 (0.00029); and June 2013 and June 2014 (0.00043).

Concerning the non-CLIL cohort, this was the result of the statistical test for their global competence in Spanish: Friedman Chi-squared = 1, df = 2, p-value = 0.6065. The p-value was over 0.05, thus the null hypothesis of no difference in probability distribution in the three moments could not be rejected. As regards global competence in Spanish, no significant change was found in the non-CLIL cohort in any of the moments.

The statistical analyses carried out confirmed 1) that only the CLIL students improved their global competence in Spanish; and 2) that their improvement took place after year one and year two.

After analysing results regarding global competence in Spanish, the same statistical operations were performed for every skill measured: listening, reading, writing and speaking.

### 7.1.1.3.2. Spanish listening

Summary of the main descriptive statistical operations. Spanish Listening							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	49	56	64	64.33	72.75	81
	June 2013	59	60	66	67.26	72.5	81.3
	June2014	55	70	75.5	74.03	79.93	90
NON-CLIL	September 2012	50.4	60.97	66.5	67.8	74.25	85
	June 2013	50	60	65	66.21	70.85	89
	June2014	50	56.9	69	67.02	75.5	89

Table 61. Descriptive statistical calculations. Spanish listening

The calculated mean of students' results showed a progressive increase over the two years in the CLIL group —64.33, 67.26 and 74.03—. The non-CLIL cohort's results, on the other hand, did not seem to show any improvement, although their results seemed to be sustained in the course of the three years —67.8, 66.21 and 67.02—. The rest of the calculations in the table above showed the same results. For instance, as regards the third quartile, the change observed in both cohorts in the three moments was different: from 72.75 to 79.93 in the CLIL group; and from 74.25 to 75.5 in the non-CLIL cohort. These results underpinned the statement that the results related to listening in Spanish in the three moments seemed to be higher in the CLIL cohort (Wilcoxon Rank Sum test with continuity correction:  $p$ -value = 0.01375). The following box plot shows a summary of the results above for both cohorts in the three different moments:

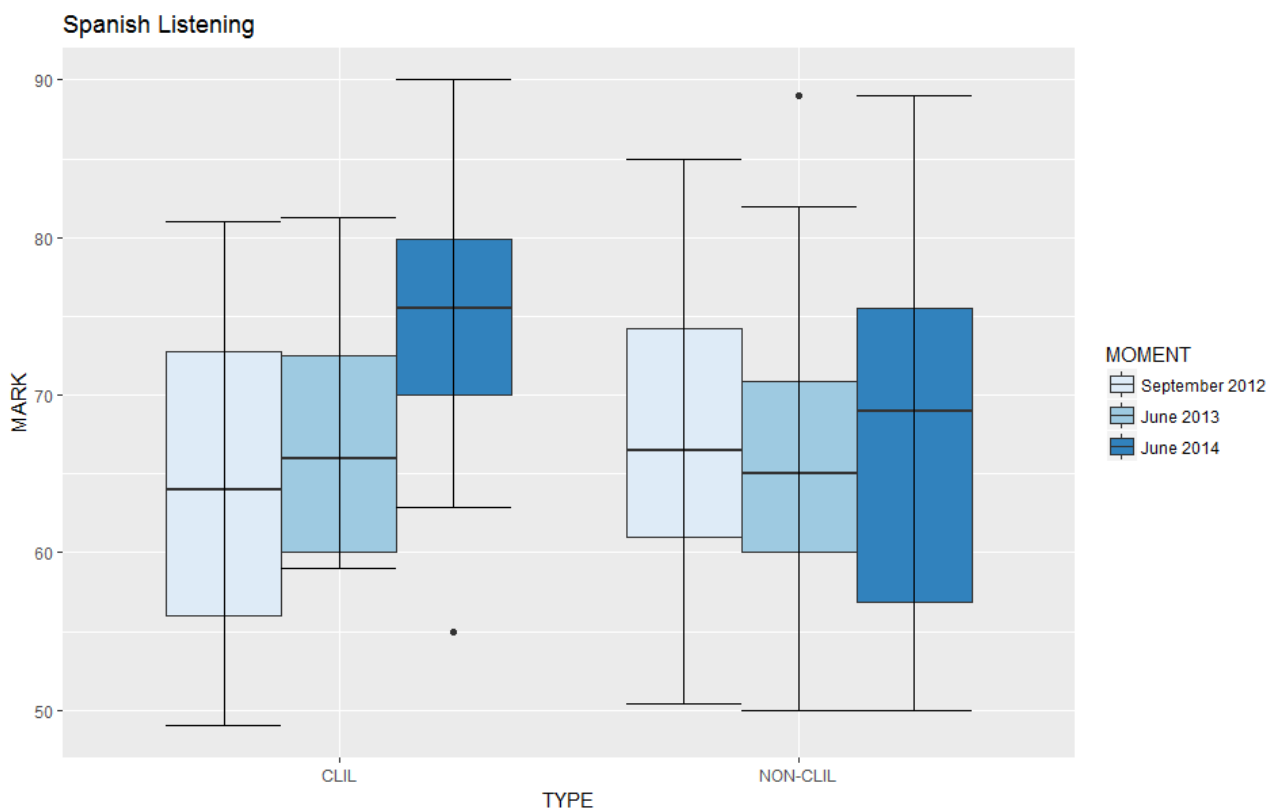


Figure 29. Box plot representing results in Spanish listening for both cohorts in the different moments

Statistical calculations for analysis of probability distribution were necessary to verify whether there were changes in the different moments or not. As regards the CLIL cohort, this was the result of the Friedman Rank Sum test regarding listening in Spanish:

Friedman Chi-squared = 7.1646,  $df = 2$ ,  $p$ -value = 0.02781. The  $p$ -value was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. Thereafter, the post-hoc analysis revealed that significant differences were only found between September 2012 and June 2014 (0.0067); and June 2013 and June 2014 (0.0075). No significant change took place after year one, i.e. between September 2012 and June 2013 (0.3121).

As to the non-CLIL cohort, the result of the Friedman Rank Sum test for their listening skill in Spanish revealed no statistical significance: Friedman Chi-squared = 0.4086,  $df = 2$ ,  $p$ -value = 0.8152. The  $p$ -value was over 0.05, thus the null hypothesis of no difference in probability distribution in the three moments could not be rejected. No significant change was found in the non-CLIL cohort in any of the moments.

The statistical analyses carried out confirmed 1) that only the CLIL students improved their listening skill in Spanish; and 2) that their improvement took place only after year two, i.e. in June 2014.

### 7.1.1.3.3. Spanish reading

Summary of the main descriptive statistical operations. Spanish Reading							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	30	45	55.9	54.52	60.22	86
	June 2013	49	50.15	58.5	59.86	62.12	90
	June2014	52.1	60	65.2	65.8	69.32	89.9
NON-CLIL	September 2012	30	44.5	50.2	53.06	60.6	80
	June 2013	30	44.95	50.2	53.5	61.38	80
	June2014	30.1	45.08	57.4	56.13	66.75	80

Table 62. Descriptive statistical calculations. Spanish reading

As to reading, the calculated mean of students' results seemed to show a significant improvement over the two years both in the CLIL group —54.52, 59.86 and 65.8— and in the non-CLIL cohort —53.06, 53.5 and 56.13—. Although both groups seemed to show a

positive progression, the CLIL cohort seemed, however, to have outperformed their non-CLIL counterparts (Wilcoxon Rank Sum test with continuity correction:  $p$ -value = 0.0167). This was also shown in the rest of the calculations in the table above. For instance, as regards the third quartile, there seemed to be an improvement of both cohorts over the two years: from 60.22 to 69.32 in the CLIL group; and from 60.6 to 66.75 in the non-CLIL cohort. Considering the median, 50% of the CLIL group's reading skill was above 65.2 by the end of the programme, whereas the median was 57.4 in the case of their non-CLIL counterparts. These results backed up the argument that both groups seemed to improve their reading skill in Spanish and that progress was higher in the CLIL group. The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

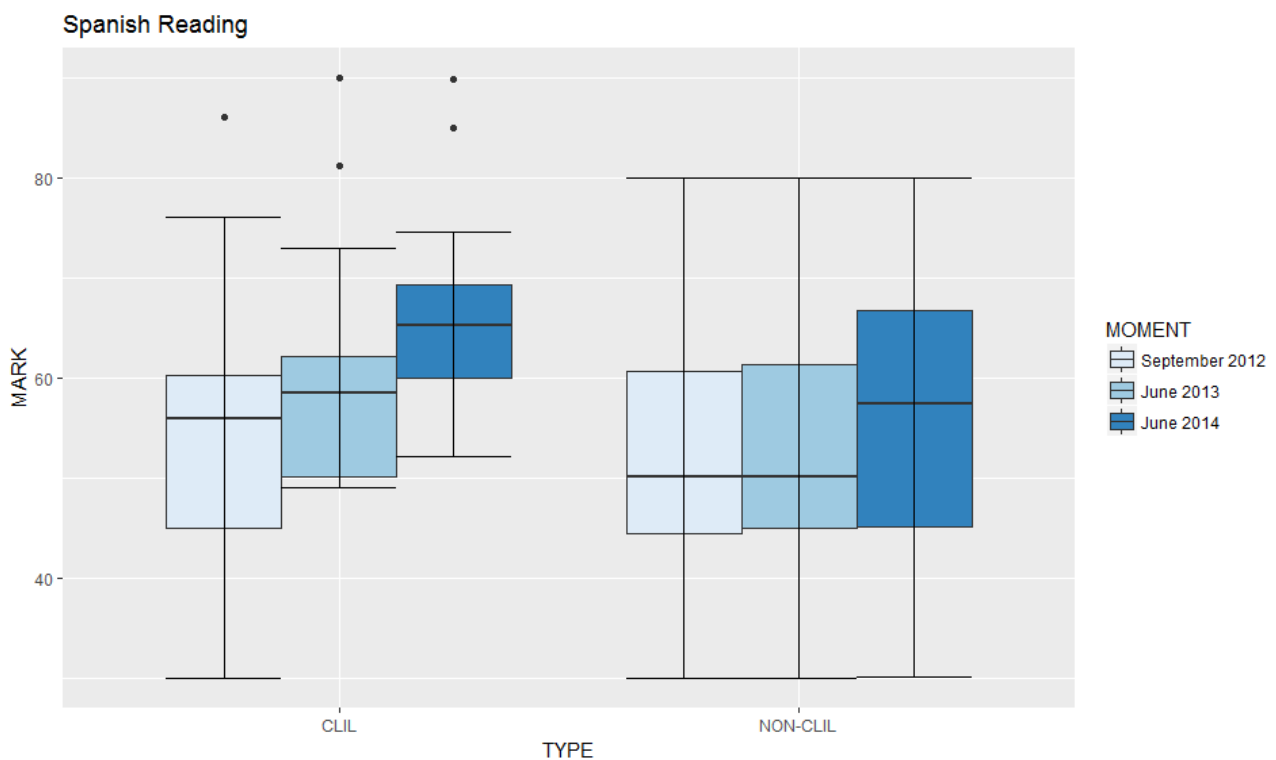


Figure 30. Box plot representing results in Spanish reading for both cohorts in the different moments

With regard to the CLIL cohort, the result of the Friedman Rank Sum test for reading in Spanish showed statistical significance: Friedman Chi-squared = 20.41,  $df = 2$ ,  $p$ -value =  $3.698e-05$ . The  $p$ -value was under 0.05, thus rejecting the null hypothesis of no difference

in probability distribution in the three moments. The post-hoc test revealed significant differences between the three moments:

As regards reading in the CLIL group I found significant differences between the three moments: September 2012 and June 2013 (0.001); September 2012 and June 2014 (0.00004); and June 2013 and June 2014 (0.00007).

As to the non-CLIL cohort, this was the result of the Friedman Rank Sum test for the reading skill in Spanish: Friedman Chi-squared = 5.6136, df = 2, p-value = 0.0604. The p-value was over 0.05, thus it was not possible to reject the null hypothesis of no difference in probability distribution in the three moments. No significant change was found in the non-CLIL cohort in any of the moments.

The statistical analyses carried out confirmed 1) that only the CLIL students improved their reading skill in Spanish; and 2) that their improvement took place after year one and year two.

#### 7.1.1.3.4. Spanish writing

Summary of the main descriptive statistical operations. Spanish Writing							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	20.5	39.88	45	48.3	53.5	79
	June 2013	40	50	54.5	56.4	62.75	76
	June2014	49.5	56.82	62.15	64.03	71.08	80
NON-CLIL	September 2012	30.3	43	52.6	54.29	64.25	79
	June 2013	30	40	52.5	54.11	62.72	80
	June2014	29.6	48.52	56.05	57.5	70.5	80

Table 63. Descriptive statistical calculations. Spanish writing

As regards writing, the calculated mean of students' results seemed to show a significant improvement over the two years both in the CLIL group —48.3, 56.4 and 64.03— and in the non-CLIL cohort —54.29, 54.11 and 57.5—. Again, as with the results shown in the

reading skill above, although both groups showed a positive progression, the CLIL cohort seemed to improve to a greater extent than their non-CLIL counterparts (Wilcoxon Rank Sum test with continuity correction:  $p$ -value = 0.004158). This was also shown in the rest of the calculations in the table above. For example, as regards the third quartile, the improvement of both cohorts over the two years also became apparent: from 53.5 to 71.08 in the CLIL group; and from 64.25 to 70.5 in the non-CLIL cohort. Considering the median, 50% of the CLIL group's writing skill was above 62.15 by the end of the programme, whereas the median was 56.05 in the case of their non-CLIL counterparts. These results supported the argument that both groups seemed to improve their writing skill in Spanish and that improvement was higher in the CLIL group. The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

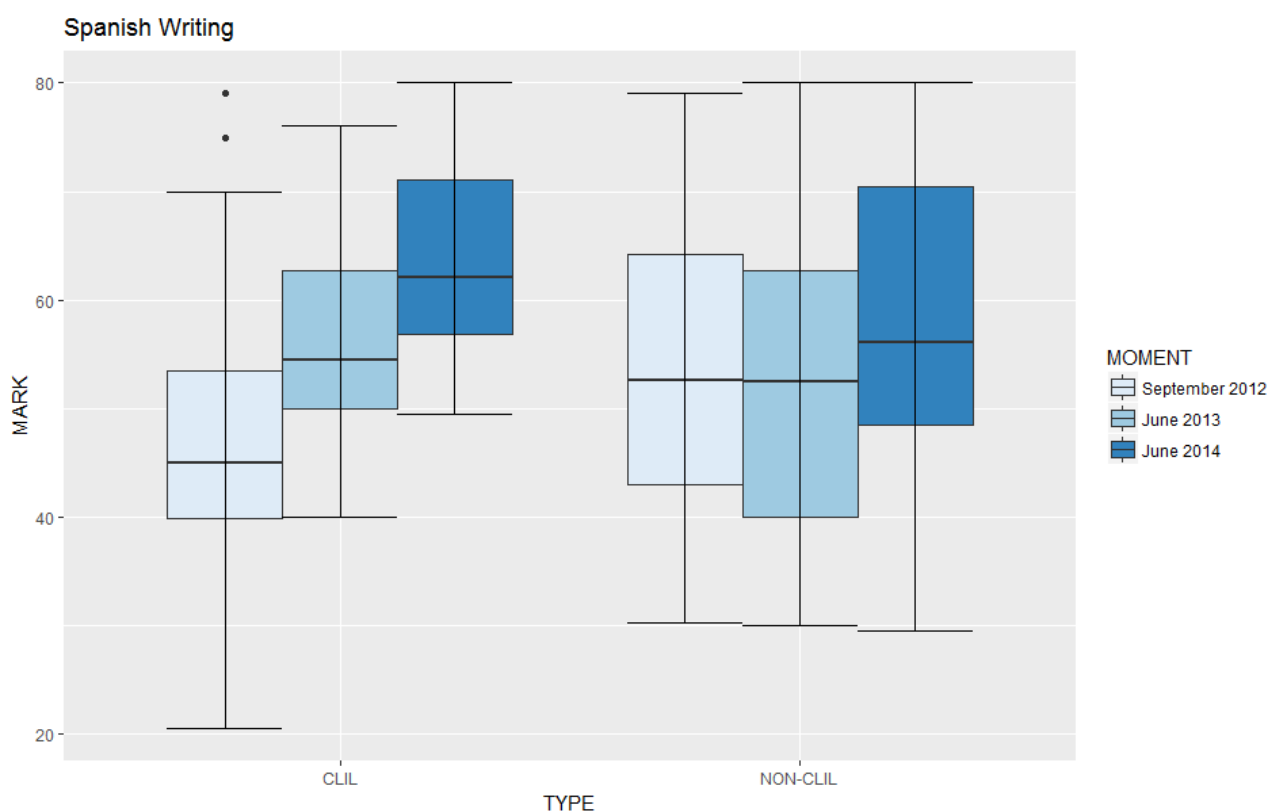


Figure 31. Box plot representing results in Spanish writing for both cohorts in the different moments

As regards the CLIL cohort, the Friedman Rank Sum Test to carry out comparisons between the three measurements showed statistical significance: Friedman Chi-squared = 25.595,  $df = 2$ ,  $p$ -value = 2.768e-06. The  $p$ -value was under 0.05, thus rejecting the null

hypothesis of no difference in probability distribution in the three moments. As happened with the analysis of global competence, listening and reading above, the post-hoc analysis revealed significant differences between the three moments: September 2012 and June 2013 (0.01045); September 2012 and June 2014 (0.00039); and June 2013 and June 2014 (0.00045).

With regard to the non-CLIL cohort, the Friedman Rank Sum test did not show statistical significance: Friedman Chi-squared = 2.5161, df = 2, p-value = 0.2842. The p-value was over 0.05, thus the null hypothesis of no difference in probability distribution in the three moments could not be rejected. As regards writing in Spanish, no significant change was found in the non-CLIL cohort in any of the moments.

The statistical analyses undertaken confirmed 1) that only the CLIL students improved their writing skill in Spanish; and 2) that their improvement took place after year one and year two.

#### 7.1.1.3.5. Spanish speaking

The following table shows the results of descriptive statistical operations regarding speaking:

Summary of the main descriptive statistical operations. Spanish Speaking							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	40	53.75	60.5	61.9	67.75	86
	June 2013	50	60	60	63.9	70.5	86
	June2014	55	64.25	70	70.4	75.5	95
NON-CLIL	September 2012	40	59.5	65	64.42	72.75	85
	June 2013	40	55	60	62.17	70	85
	June2014	46	50	65.5	63.54	73.5	83

Table 64. Descriptive statistical calculations. Spanish speaking



The calculated mean of students' results showed a progressive increase over the two years in the CLIL group —61.9, 63.9 and 70.4—. Conversely, the non-CLIL cohort's results did not seem to show any improvement, although they seemed to be sustained in time —64.42, 62.17 and 63.54—. This contrast between both groups was also shown in the rest of the calculations in the table above. For instance, as regards the third quartile, the CLIL cohort showed an increase from 67.75 to 75.5, whereas the third quartile showed no significant change in the non-CLIL group —from 72.75 to 73.5—. Considering the median, 50% of the CLIL group's speaking skill in Spanish was above 70 by the end of the programme, whereas the median was 65.5 in the case of their non-CLIL counterparts. These results underpinned the statement that the CLIL cohort seemed to improve their speaking skill in Spanish and that their results were higher than those of the non-CLIL group (Wilcoxon Rank Sum test with continuity correction:  $p$ -value = 0.01071). The following box plot shows a summary of the the results for speaking (above) for both cohorts in the three different moments:

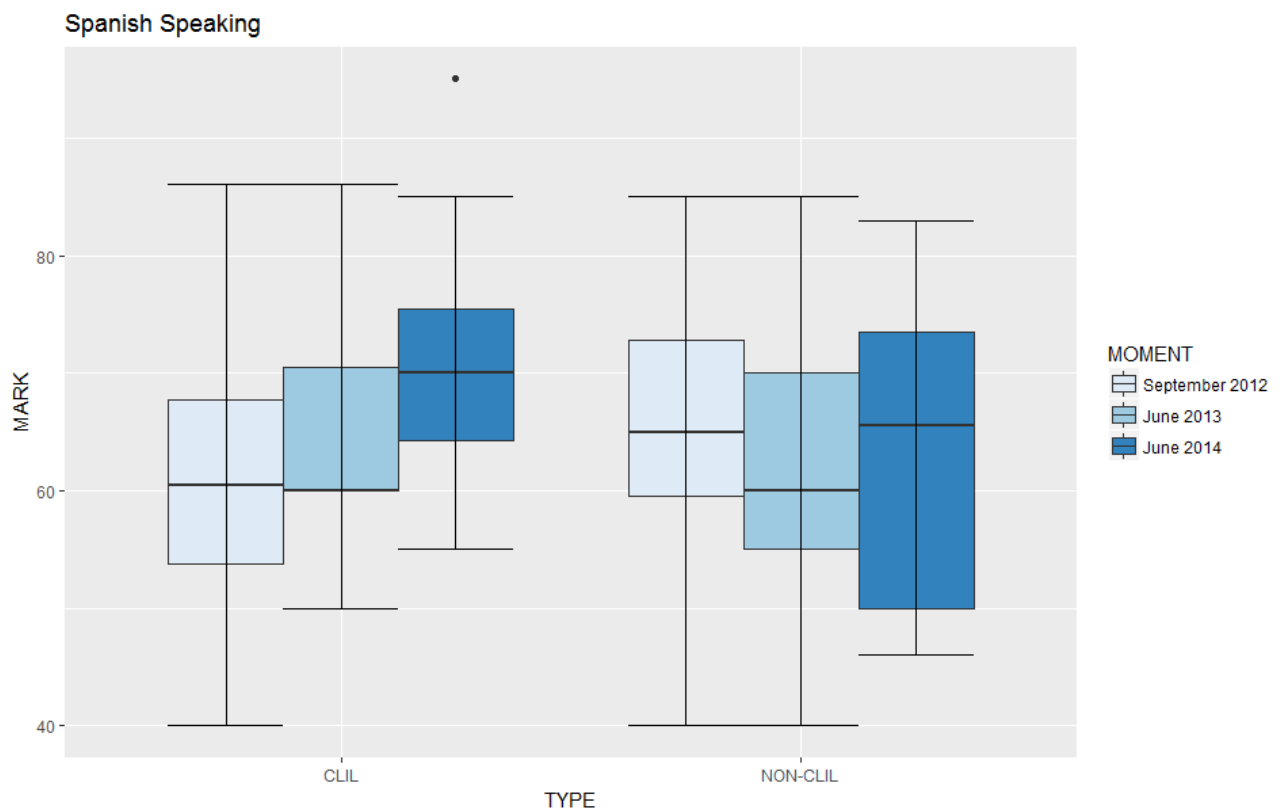


Figure 32. Box plot representing results in Spanish speaking for both cohorts in the different moments

As regards the CLIL cohort, this was the result of the Friedman Rank Sum test regarding speaking in Spanish: Friedman Chi-squared = 26.225, df = 2, p-value = 2.019e-06. The p-value was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. Thereafter, the post-hoc analysis showed that significant differences were only found between September 2012 and June 2014 (0.00102); and June 2013 and June 2014 (0.00039). No change was revealed between September 2012 and June 2013 (0.24203).

With regard to the non-CLIL cohort, the Friedman Rank Sum test revealed no statistical significance: Friedman chi-squared = 2.8101, df = 2, p-value = 0.2454. The p-value was over 0.05, thus being impossible to reject the null hypothesis of no difference in probability distribution in the three moments. As regards speaking in Spanish, no significant change was found in the non-CLIL cohort in any of the moments.

The statistical analyses carried out confirmed 1) that only the CLIL students improved their speaking skill in Spanish; and 2) that their improvement took place only after year two.

Summarising, the CLIL cohort showed an overall improvement in Spanish in the three moments as regards global competence, reading and writing. Regarding listening and speaking, CLIL students attained better results from moment two to moment three. On the other hand, regarding the non-CLIL group, no significant changes were observed either on the overall competence or the different skills.

		SPANISH				
		GLOBAL COMPETENCE	LISTENING	READING	WRITING	SPEAKING
CLIL		+	+ (ONLY AFTER YEAR TWO)	+	+	+ (ONLY AFTER YEAR TWO)
NON-CLIL		=	=	=	=	=
Longitudinal progress: positive (+), negative (–) or no progress (=)						

Table 65. Longitudinal progress. Spanish

#### 7.1.1.4. Social Science

In this section I will analyse the data related to the research question number 7:

**RQ7: Are there any significant differences between CLIL and non-CLIL students regarding content learning on a longitudinal basis?**

In section 6.5.1.3. I described the tests used for measuring students' knowledge in Social Science. The same as languages, the students' learning of content was also tested three times during the project. In accordance with Spanish and Galician provision (see section 3.1. in chapter 3), Social Science tests were designed to assess the degree of development of curricular contents in Social Science for S3 and S4. Tests were delivered in Galician with both cohorts and featured closed and open questions, matching, graph interpretation and text interpretation, all of them with option-based answers.

For the sake of analysis, I carried out a number of statistical operations with a view to determining whether differences between cohorts were significant or not. Calculations were made considering the students' results and they are shown in the following table:

Summary of the main descriptive statistical operations. Social Science							
	MOMENT	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	40	50	71	66.4	79	87
	June 2013	40	57.5	60	64.79	70	100
	June2014	40	60	60	67.29	75	100
NON-CLIL	September 2012	40	50	71	65	79	86
	June 2013	40	50	50	56.17	61.25	83
	June2014	40	50	60	58.62	61.25	90

Table 66. Descriptive statistical calculations. Social Science

The calculated mean of CLIL students' results did not show significant changes between the different moments —66.4, 64.79 and 67.29—. The non-CLIL cohort, however, seemed to have shown a slight decrease in their results in the different moments —65, 56.17 and

58.62—. According to the descriptive statistical operations above, the CLIL programme did not seem to affect the CLIL cohort either positively or negatively. As regards the non-CLIL students, some of the operations above –the mean, the median or the third quartile— seemed to suggest a slight decline in their results. These results underpinned the statement that neither of the groups seemed to have improved their knowledge of Social Science. Furthermore, although CLIL seemed to outperform the CLIL cohort, no change seemed to take place regarding their results in the different moments. When contrasting both groups, no significant difference was found: Wilcoxon Rank Sum test with continuity correction:  $p\text{-value} = 0.1155$ . The following box plot shows a summary of the values of the results above for both cohorts in the three different moments:

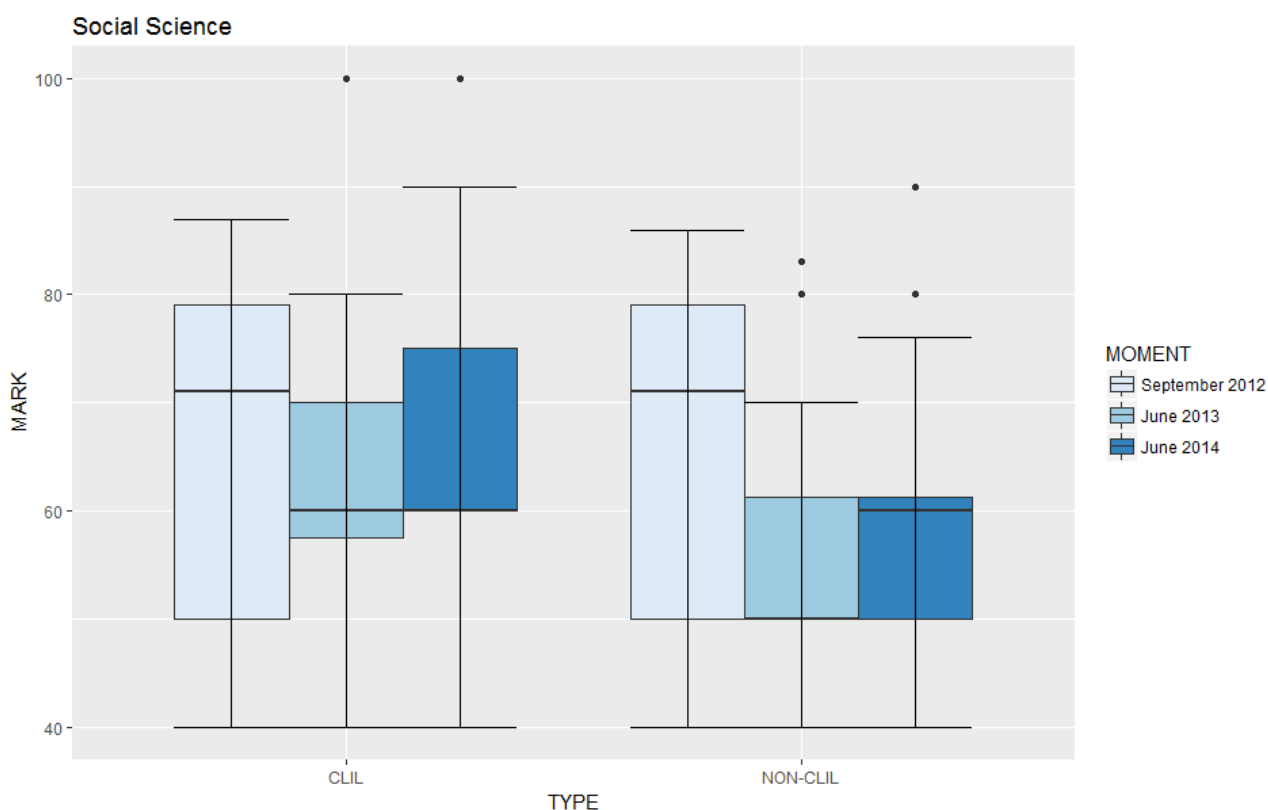


Figure 33. Box plot representing results in Social Science for both cohorts in the different moments

After calculating the descriptive operations above, I decided to use some statistical tests with a view to determining whether the results were the same in the three moments or not. Prior to making a decision about which statistical tests to use, exactly as I did with the three languages, I tested for normality through the Shapiro-Wilks test, which rejects the

hypothesis of normality when the p-value is less than or equal to 0.05. The test failed normality in some of the cases and this was the reason for me resorting to the same nonparametric test in order to carry out comparisons between the three measurements: the Friedman Rank Sum Test. This test allowed me to prove that the probability distribution of the results in Social Science for both CLIL and non-CLIL cohorts was either the same in the three moments or different in at least one of them.

As regards the CLIL cohort, this was the result of the test regarding global competence in English: Friedman Chi-squared = 0.51613, df = 2, p-value = 0.7725. The p-value was over 0.05, thus the null hypothesis of no difference in probability distribution in the three moments could not be rejected. As regards Social Science results, no significant change was found in the CLIL cohort in any of the moments.

Concerning the non-CLIL cohort, this was the result of the test for their global competence in Social Science: Friedman Chi-squared = 7.4154, df = 2, p-value = 0.02453. In this case, the p-value was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. Thereafter, and in order to determine which moments revealed differences, I carried out a post-hoc analysis, which revealed significant differences only between September 2012 and June 2013 (0.041). No differences were found either between September 2012 and June 2014 (0.073) or between June 2013 and June 2014 (0.209).

Summarising, CLIL did not seem to have any impact on CLIL students' learning of content over the two years of implementation. Findings showed, however, that the non-CLIL cohort did worse only between the first and the second moment, although no significant change was found between the second and the third moments.

	<b>SOCIAL SCIENCE</b>
<b>CLIL</b>	=
<b>NON-CLIL</b>	– (ONLY AFTER YEAR ONE)
Longitudinal progress: positive (+), negative (–) or no progress (=)	

Table 65. Longitudinal progress. Social Science

### 7.1.1.5. Attitudes, motivations and perceptions

In this section I will analyse the data related to the first research question:

#### **RQ1: Does CLIL have any impact on students' attitudes and motivations towards language learning?**

As seen in sections 2.3.2. and 6.5.3.1. a three-part questionnaire was used with the whole sample of students in order to measure attitudes and motivations. The three parts were related to:

- 1) personal information;
- 2) 13 items featuring the attitudinal/motivational component, adapted from Gardner's standardised Attitude Motivation Test Battery –AMTB– (Gardner 2004), which was based on semantic differential format scales;
- 3) some additional questions in which the students were asked to indicate their preference for a language of instruction (Galician, Spanish or English), to give their opinion about the difficulty of learning through a foreign language as well as about task and project based learning.

The sample that completed the questionnaire was the same that took the language and content tests. It was formed by the 44 students –20 CLIL and 24 non-CLIL, who

considered themselves bilingual —Spanish-Galician— and claimed they could use both languages in any situation. Nonetheless, 95% of them used Galician as an L1 in the educational environment as well as with family and friends.

The second part of the test was made up of the following items, which the students had to assess by means of a semantic differential format scaled from 1 to 7. Besides the language component of the test, item 13 —related to motivation towards Social Science— was added with a view to analysing how the students in both groups felt about studying the content subject:

1. My motivation to learn English in order to communicate with English speaking people is:

WEAK \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 STRONG

2. My attitude toward English speaking people is:

UNFAVOURABLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 FAVOURABLE

3. My interest in foreign languages is:

VERY LOW \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 VERY HIGH

4. My desire to learn English is:

WEAK \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 STRONG

5. My attitude toward learning English is:

UNFAVOURABLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 FAVOURABLE

6. My attitude toward my English teacher is:

UNFAVOURABLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 FAVOURABLE

7. My motivation to learn English for practical purposes (e.g., to get a good job) is:

WEAK \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 STRONG

8. I worry about speaking English outside of class:

VERY LITTLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 VERY MUCH

9. My attitude toward my English course is:

UNFAVOURABLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 FAVOURABLE

10. I worry about speaking in my English class:

VERY LITTLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 VERY MUCH

11. My motivation to learn English is:

VERY LOW \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 VERY HIGH

12. My parents encourage me to learn English:

VERY LITTLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 VERY MUCH

13. My motivation to learn Social Science is:

VERY LOW \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 VERY HIGH

Items 8 and 10 were worded negatively (as in Gardner 2004). In order to facilitate analysis with a view to matching the meaning of the rest of the items, the semantic differential in items 8 and 10 was inverted as 7 was negative and 1 was positive. Scores were also transformed for statistically analysis (see below).

For the sake of analysis, I designed bar charts for data presentation and description before carrying out a number of statistical operations in order to measure whether differences between both cohorts were significant.

Likert-type bar charts were designed for every item (variable) in the three different moments —September 2012, June 2013 and June 2014— and for each of the cohorts —CLIL and non-CLIL—. In order to provide a descriptive analysis of students' responses in the questionnaire items were grouped into the different components of attitudinal/motivational analysis seen in sections 2.3.2. and 6.5.3.1.:

1) As seen in section 2.3.2, **integrativeness** is related to group-specific affective reactions. It involves the individual's orientation to language learning focusing on



communication with members of the additional language group, interest in foreign groups and positive attitudes toward the target language group. In other words, it shows an openness to other cultures in general, and the foreign culture in particular. Integrativeness-oriented individuals do not usually focus on their own ethnolinguistic community as part of their own identity, but are willingly able to accept and adopt features of another language group as part of their own behavioural repertoire.

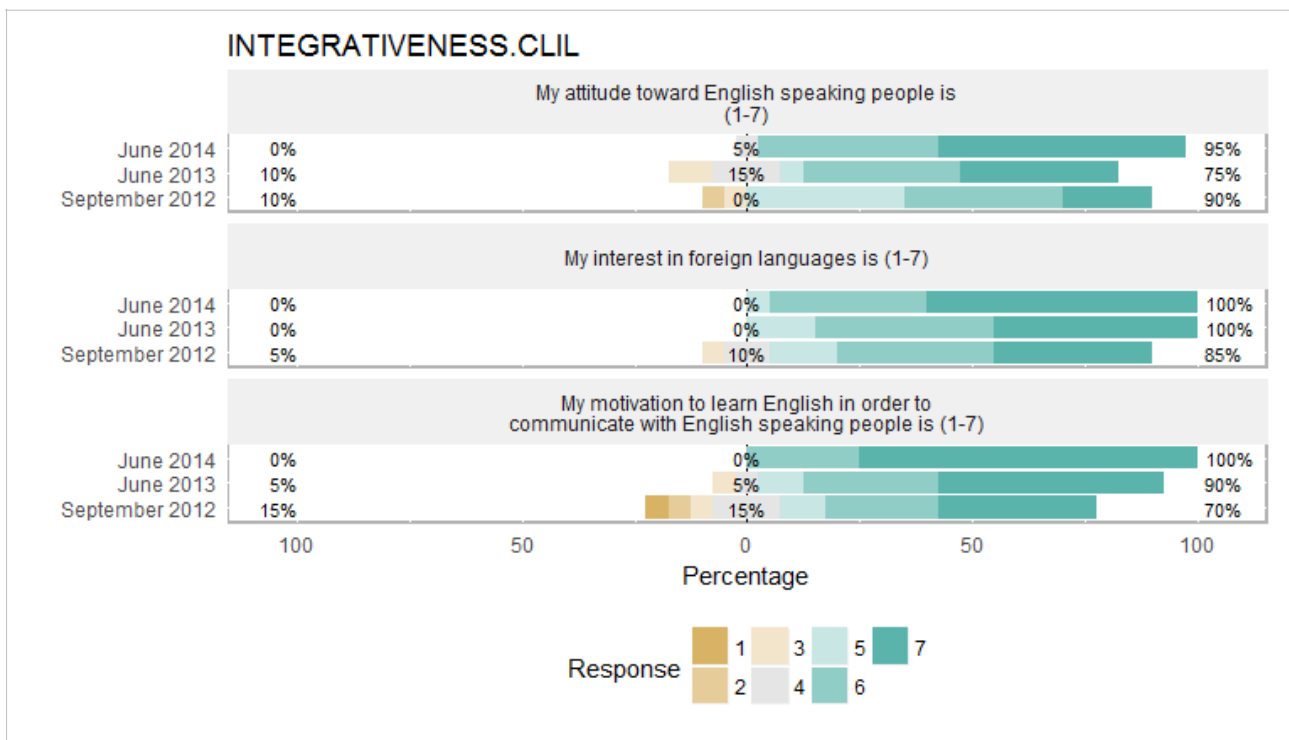


Figure 34. Integrativeness in the CLIL group

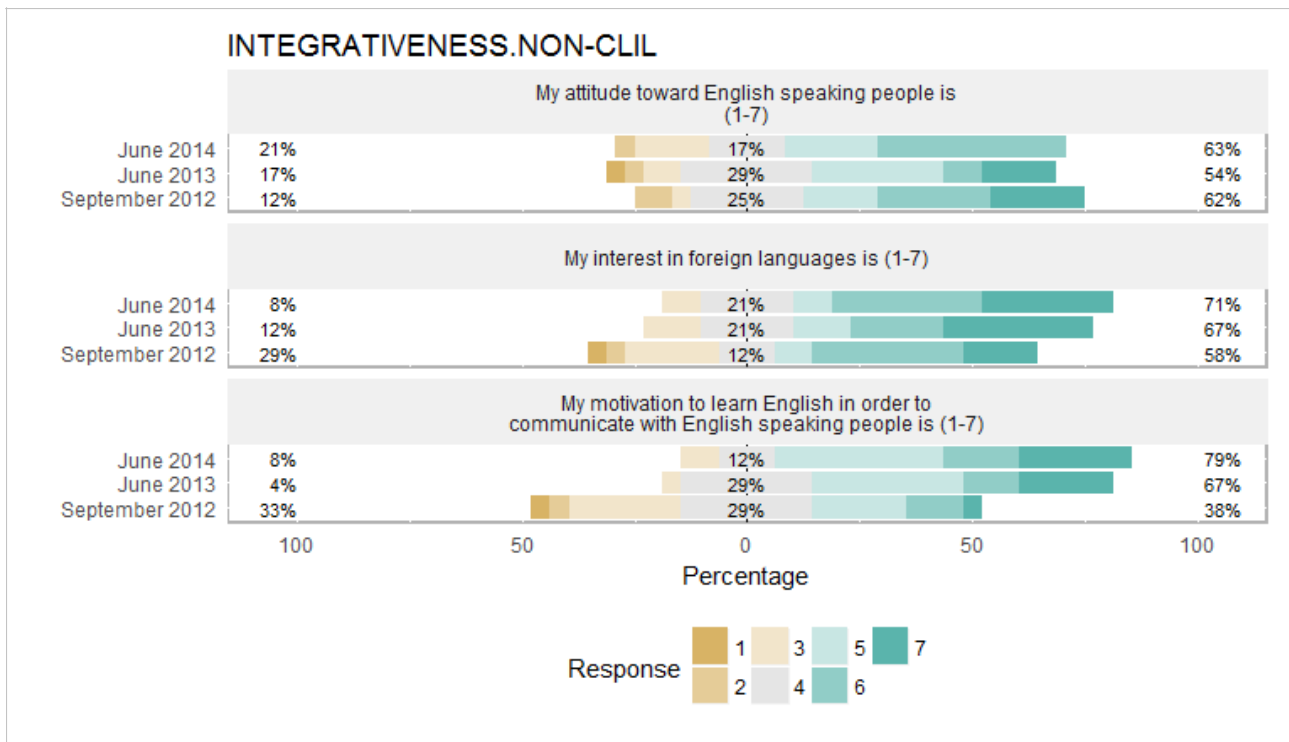


Figure 35. Integrativeness in the non-CLIL group

According to results and as mentioned in section 6.4.1., attitudes and motivations were higher in the CLIL group from the start, although both groups showed positive attitudes and motivations.

Item 1 in this integrativeness-related block shows a similar progression in both groups. Attitudes towards English-speaking people seemed to slightly fall in both groups after year one and go back up again to the same percentage after year two. The lower attitudes after year one could be explained by 1) the fact that students in both cohorts faced a new methodological approach to language learning; and 2) the fact that both cohorts contacted with English-speaking people for the first time in their lives as they travelled abroad and developed international programmes in English. This might have had a slight impact on their attitudes. The interest-related item number 2 in this block shows a progression up to 100% in the CLIL group after year one, sustained after year two. The non-CLIL cohort's interest goes up after year one, and it slightly falls in year two. As regards motivation-related item number 3, both groups show higher levels after years one and two.

All in all, attitudes and motivations analysed in this block seemed to be sustained in time in both cohorts. The same methodological components were used with both groups: curriculum integration through task and project based learning, multilingual approach to language learning, use of other curricular content in the English class and the international character of projects —Erasmus-funded projects, trips abroad or eTwinning—.

2) As seen in section 2.3.2, **motivation** fundamentals are identifiable by three measures: effort and persistence, the willingness to learn the language, and the affective reactions towards the learning of the language. As said above, an item related to the students’ motivation towards learning Social Science was added.

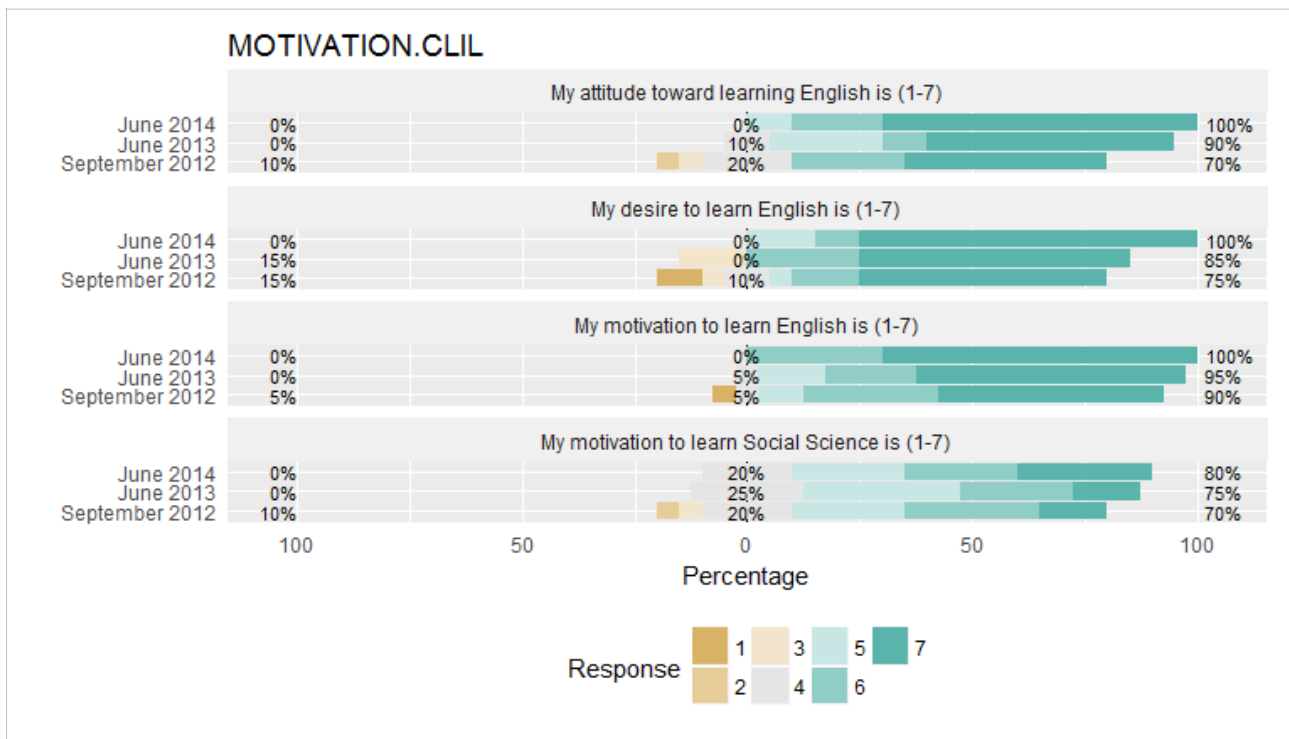


Figure 36. Motivation in the CLIL group

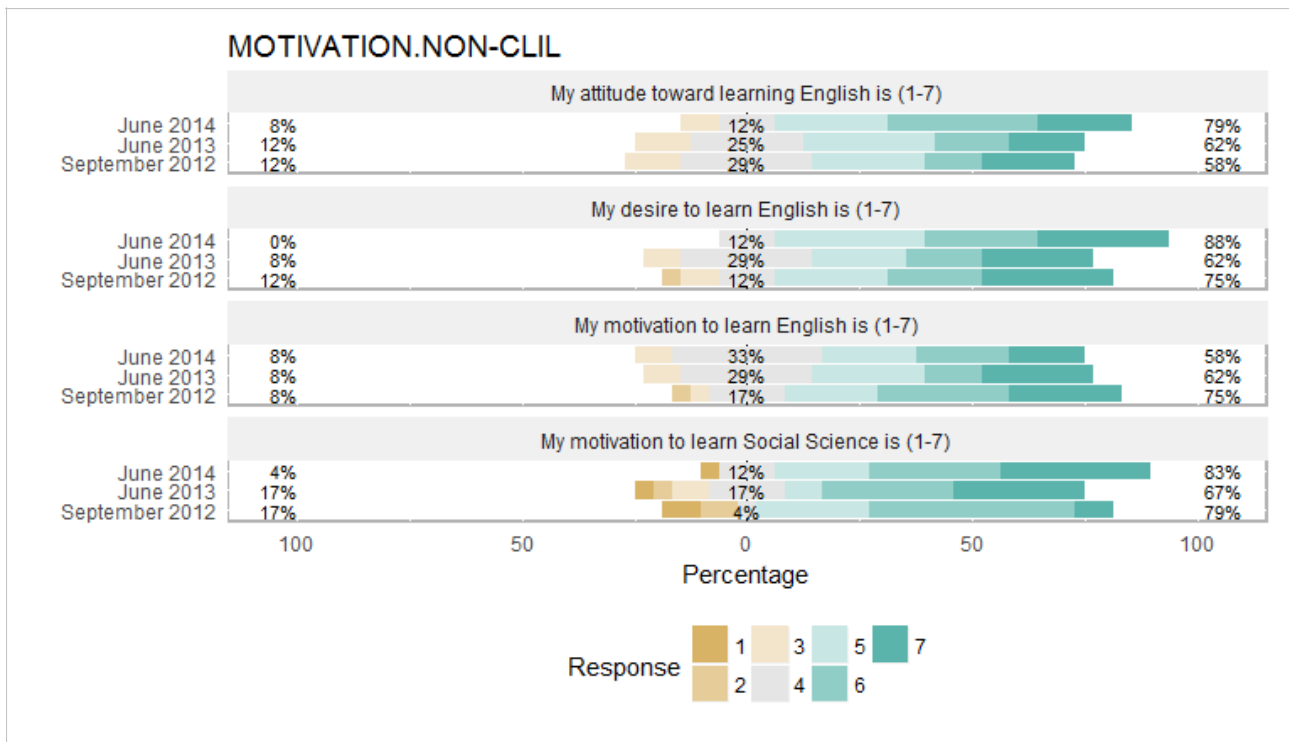


Figure 37. Motivation in the non-CLIL group

Motivation-related items were positive at the start in both CLIL and non-CLIL students, although, as expected, CLIL showed more positive attitudes and motivations than their non-CLIL counterparts. Regarding items 1, 2 and 4 in this block, both groups showed more positive attitudes and motivations towards learning after two years. Item 3, nevertheless, shows that the CLIL cohort’s degree of motivation went up to 100% after two years, whereas the non-CLIL group showed a slight decline in their motivation to learn English. As regards motivation towards learning Social Science, it was similar at the start and was sustained after two years in both groups, being the one in the non-CLIL cohort slightly higher.

3) As seen in section 2.3.2, **attitudes towards the learning situation** refer to affective reactions to any classroom-related aspect: the quality and availability of materials, classroom atmosphere, the curriculum, the teacher, etc. In terms of the AMTB (Gardner 2004), these attitudes are assessed through the participants’ evaluation of the course and the teacher.

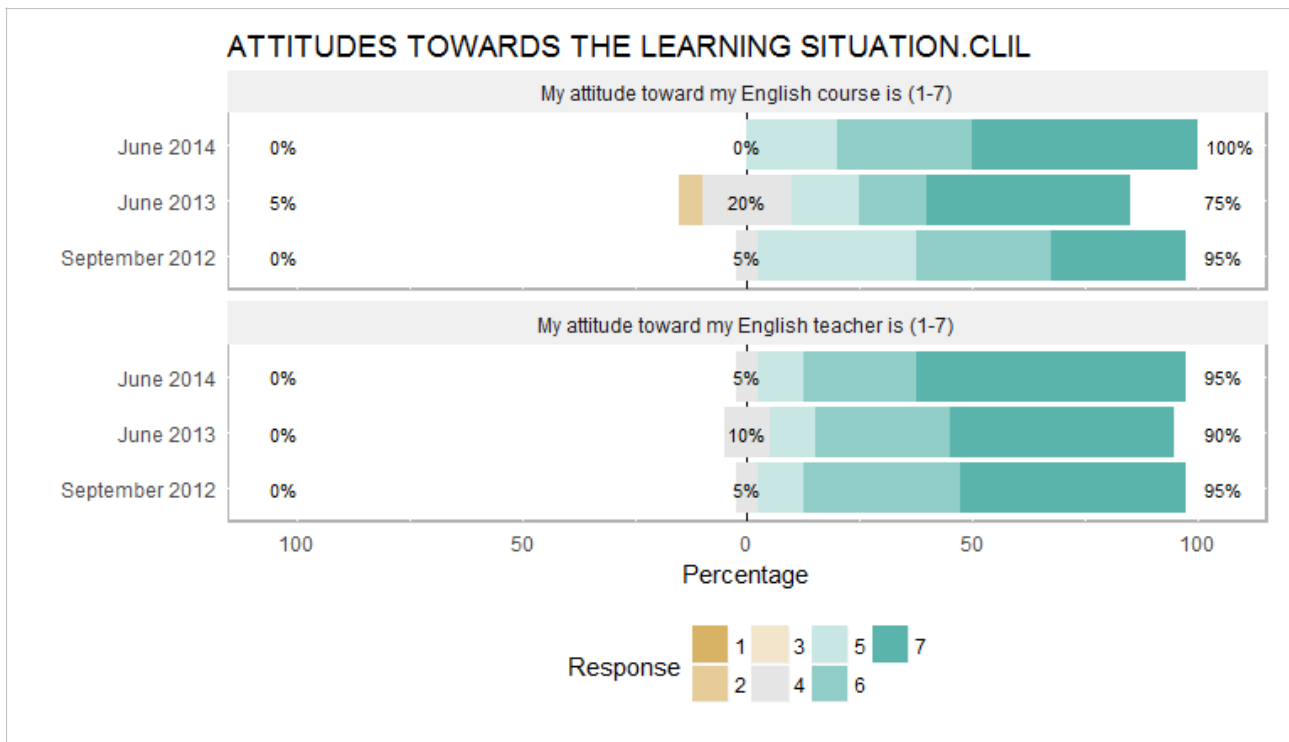


Figure 38. Attitudes towards the learning situation in the CLIL group

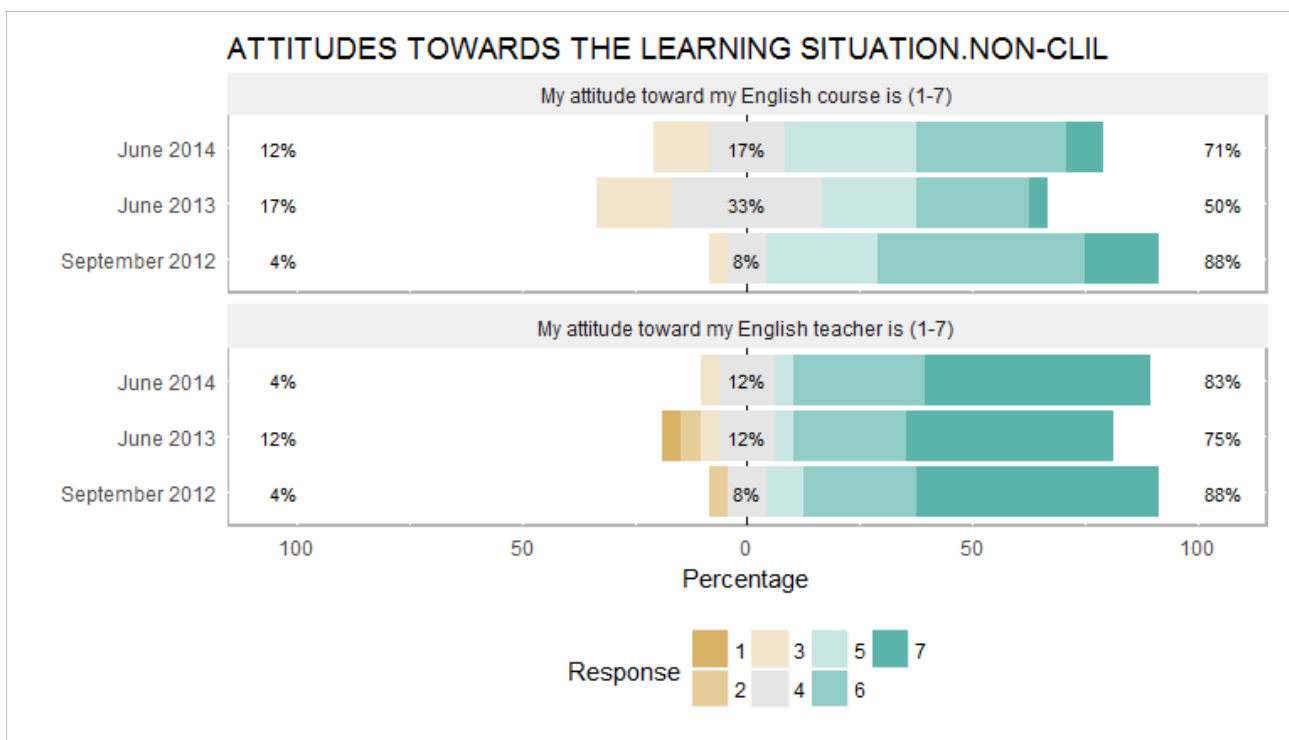


Figure 39. Attitudes towards the learning situation in the non-CLIL group

At the start of the programme, both groups showed really positive attitudes towards the English course and the English teacher. After year one, there was a slight fall in both groups' attitudes, being the non-CLIL cohort's one more significant (down to 50% in item

1). This might have to do with the methodological change (see chapter 3). After year two attitudes were more positive again.

4) As seen in section 2.3.2, **instrumental orientation** refers to the practical purposes for which language is studied. The same as integrativeness, there could exist a diverse range of reasons for such feelings to vary from the cultural setting to the individual experiences of the learner.

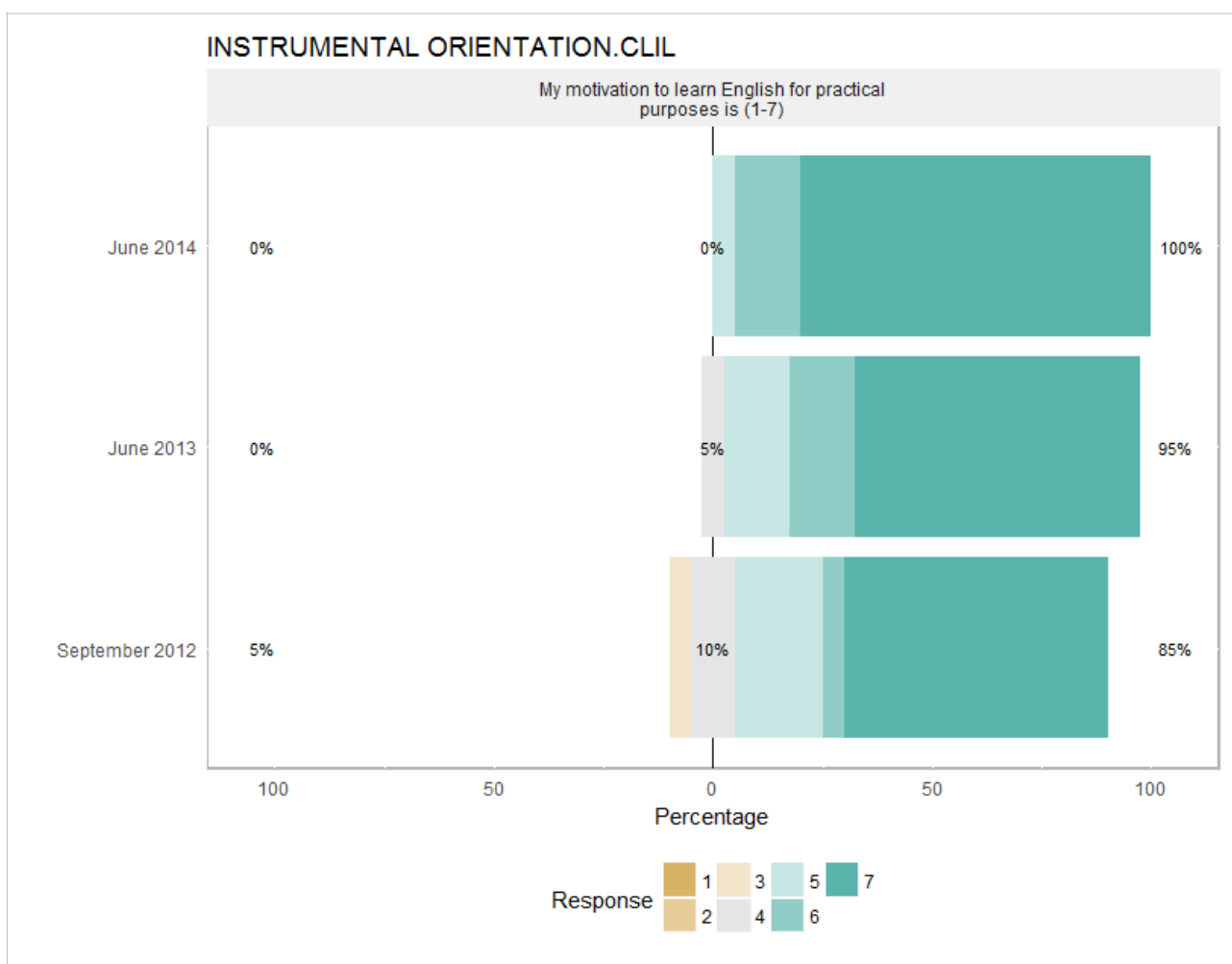


Figure 40. Instrumental orientation in the CLIL group

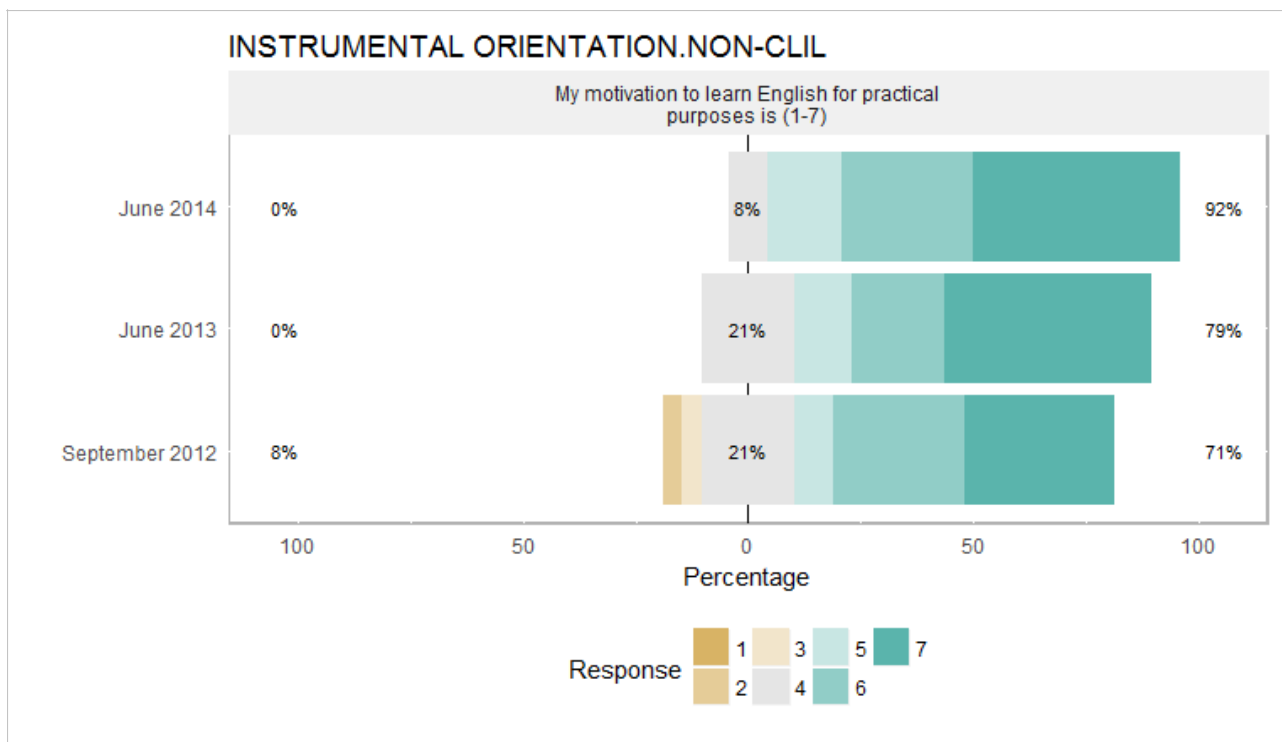


Figure 41. Instrumental orientation in the non-CLIL group

Although the CLIL cohort showed a slightly higher motivation towards learning English for practical purposes, both groups showed a similar progression towards a higher degree of motivation after two years.

5) As seen in section 2.3.2, **anxiety** about using the additional language could happen in different situations and may have motivational properties which could facilitate achievement or distressing properties that may interfere with learning and production. Language anxiety is generally considered to be negatively connected to both achievement and self-confidence when using the language. For the purposes of the socio-educational model, Gardner (2004) distinguished two different situations: the language classroom and the variety of contexts outside of the classroom where the additional language might be used. As said above, we inverted scores for the purpose of analysis.

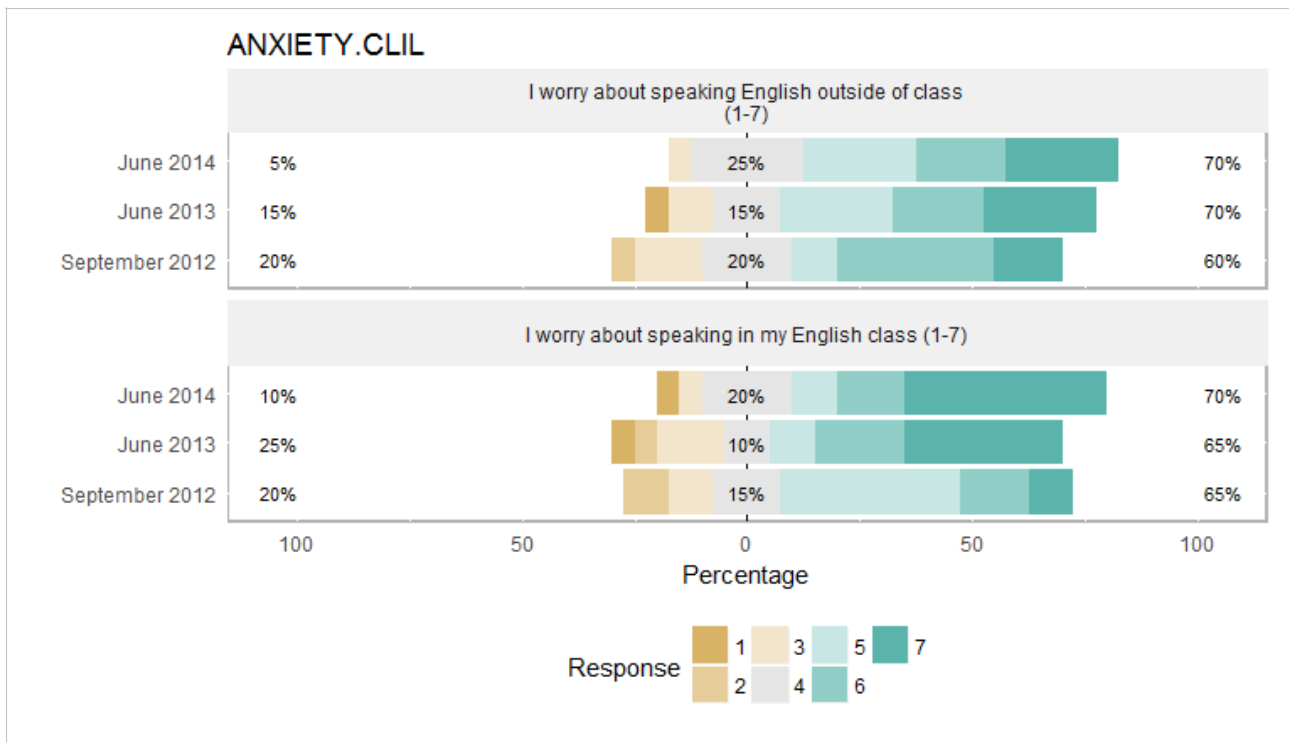


Figure 42. Anxiety in the CLIL group

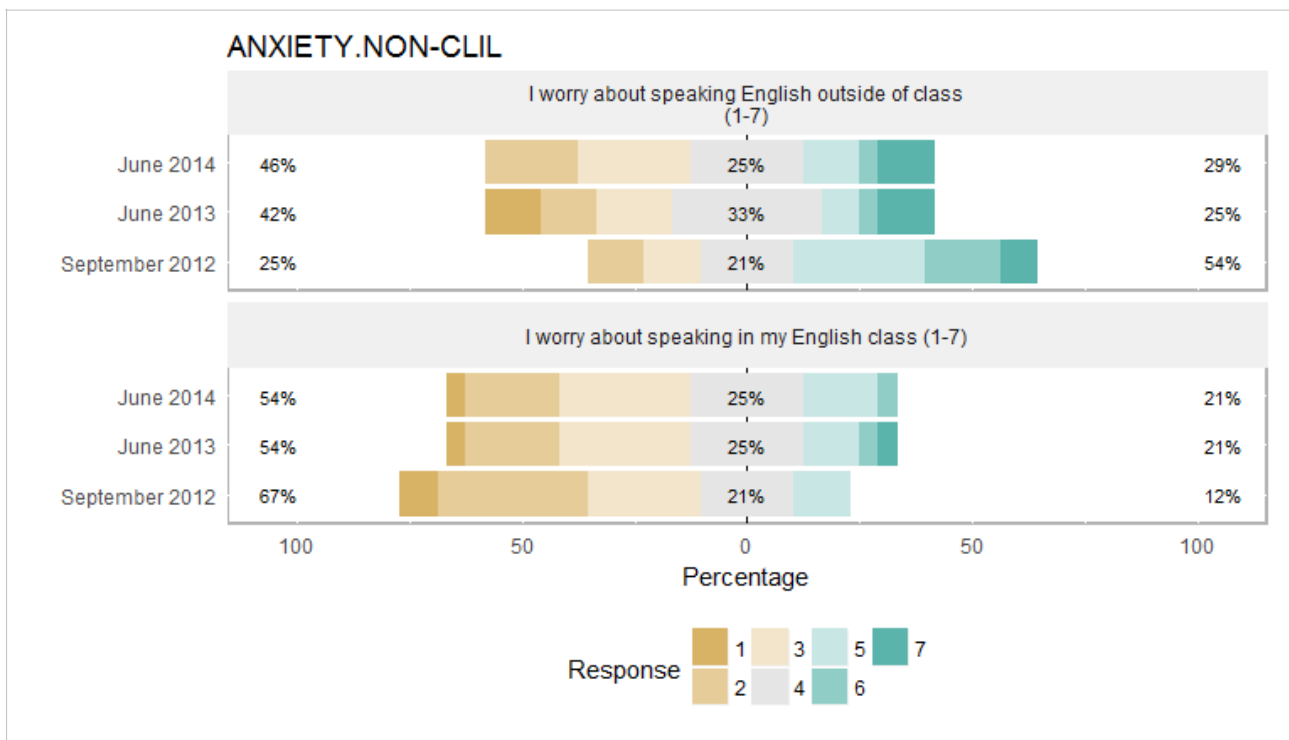


Figure 43. Anxiety in the non-CLIL group

In this block, items show the students levels of anxiety when speaking English. Differences were evident at the start and throughout the development of the programme. Anxiety in the non-CLIL cohort was high at the start and hardly changed after two years, whereas the CLIL group’s levels were lower at the start and improved after two years.



6) The item related to **parental encouragement** assesses the extent to which students feel their parents support them to learn English.

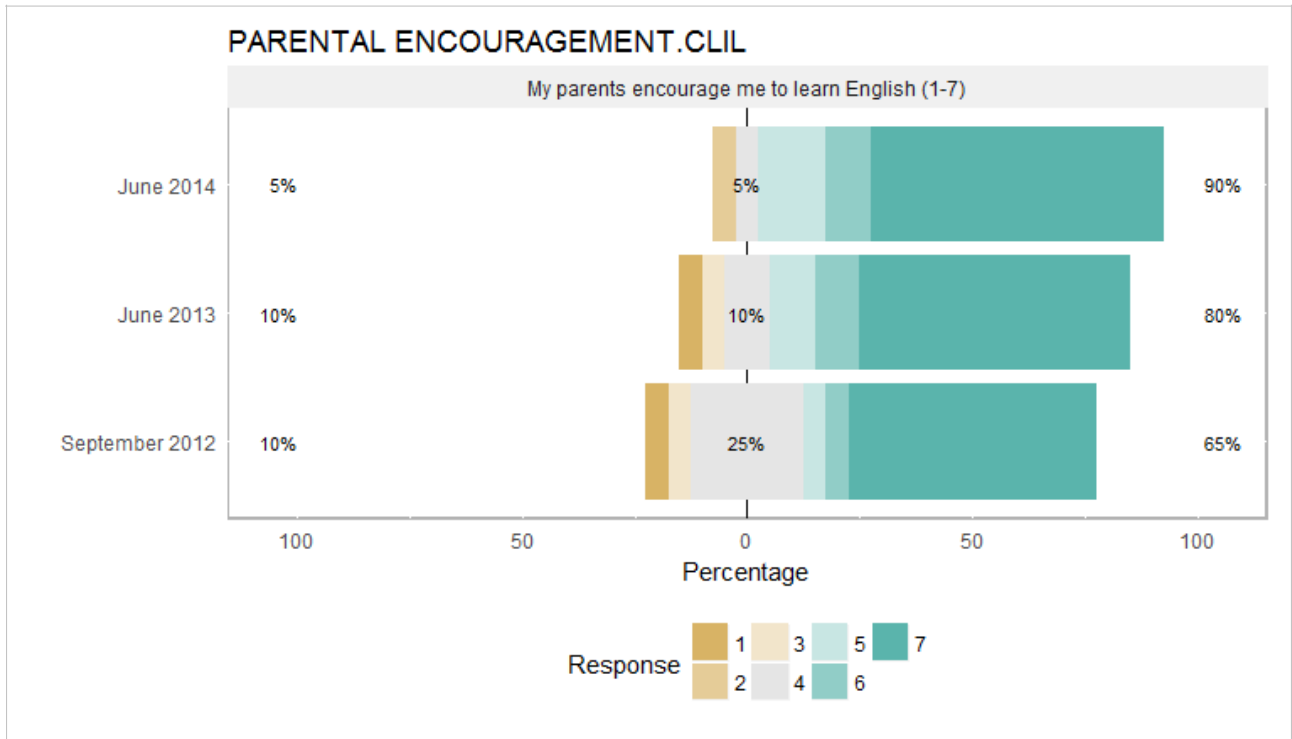


Figure 44. Parental encouragement in the CLIL group

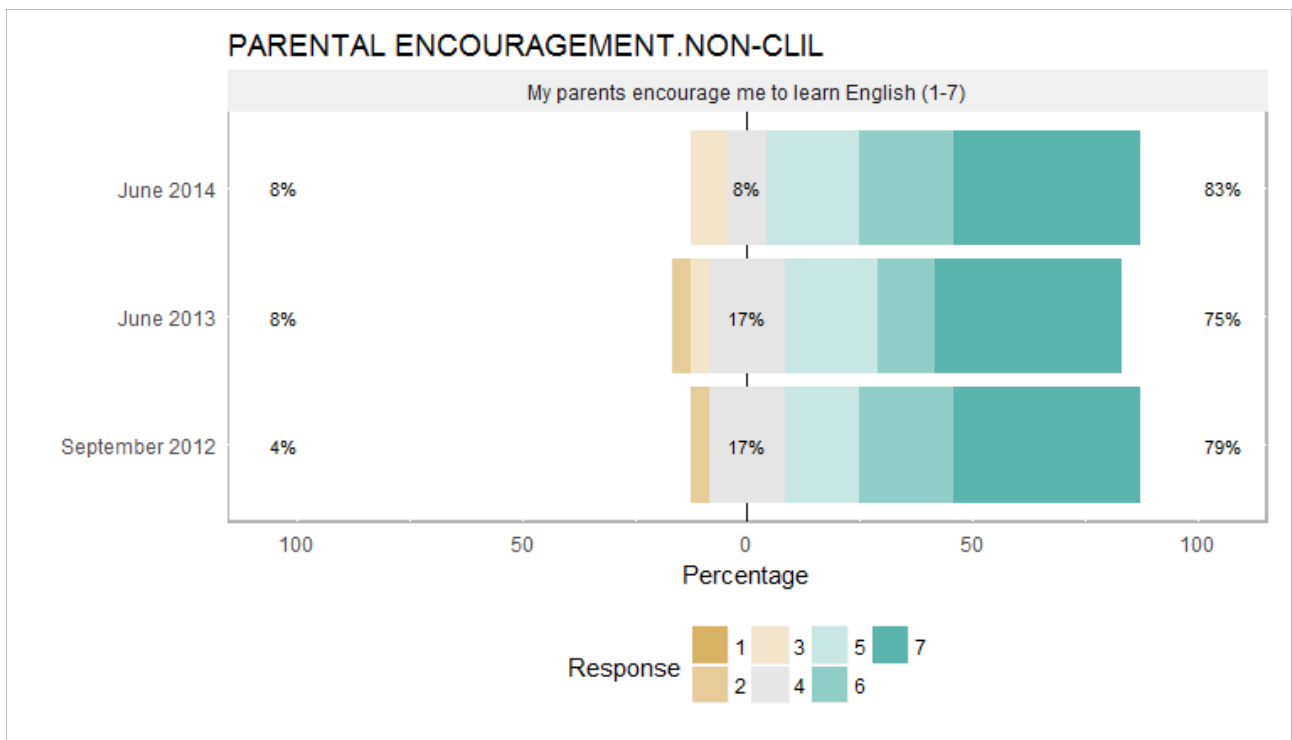


Figure 45. Parental encouragement in the non-CLIL group

According to both groups of students, their parents' support was strong from the start. The charts show that parental encouragement improved and was sustained after two years. In section 7.1.2.1. I will analyse the families' perceptions so as to triangulate findings regarding students and those regarding their parents.

In order to analyse differences between both cohorts, I carried out a number of statistical operations with a view to determining whether differences were significant or not. As seen above, items 8 and 10 —negatively worded— were inverted for analysis so as to match the rest of items semantically as well as to facilitate statistical analysis. The scale of assessment used presented 1 as the smallest value and 7 as the biggest one, so the transformation formula was:

$$P_i = (P_m + 1) - P_o$$

$P_i$  was the transformed value of the inverted item;  $P_m$  was the maximum value that could be given to an item; and  $P_o$  was the value originally given to the item.

After this transformation took place, I calculated the position index of every variable as well as 95% confidence intervals following the development used by Sánchez et al. (2004). A position index is an inference-related statistical operation which serves the purpose of determining the position of a score within a group of scores. It is really useful to quantify the global position of a sample with regard to a categorical variable —i.e. the one that can take on one of a limited number of possible values—. In other words, if we have a sample of individuals ( $N$ ) assessed through an ordinal scale of  $k$  (number of values —1 to 7 in our questionnaire—), the position index will determine an overall value somewhere between 1 and 0 of the answers elicited from all the individuals in the sample. The position index will take a 0 value when the whole of the sample is situated on the very low end of the ordinal scale —1 in our questionnaire— and it will take the value of 1 when it is situated at the higher end of the scale —7 in the questionnaire—. Furthermore, if the distribution of respondents in the sample is symmetrical regarding the central value(s) of the scale —

value or values depending on whether  $k$  is an odd or even number—, then the position index will take the value of 0.5.

If  $P_i$  is the proportion of respondents who choose  $i$ —respondents can choose any value between 1 and 7, the scale ordinal category within  $k$ — we can calculate a weighted score ( $M$ ) as follows:

$$M = \sum_{i=1}^k iP_i$$

Then we can define the position index ( $IP$ ):

$$IP = \frac{M - 1}{k - 1}$$

As said above,  $IP$  will take values between 0 and 1. The variance ( $V$ ) of the position index can be calculated as:

$$V(IP) = \frac{1}{(k - 1)^2} V(M)$$

Being

$$\begin{aligned} V(M) &= V\left(\sum_{i=1}^k iP_i\right) = \sum_{i=1}^k i^2 V(P_i) + \sum_{i=1}^k \sum_{j \neq 1}^k ij Cov(P_i, P_j) \\ &= \sum_{i=1}^k i^2 \frac{P_i(1 - P_i)}{n} - \sum_{i=1}^k \sum_{j \neq 1}^k ij P_i P_j \end{aligned}$$

Then,

$$V(IP) = \frac{1}{n(k - 1)^2} \left\{ \sum_{i=1}^k i^2 \frac{P_i(1 - P_i)}{n} - 2 \sum_{i=1}^k \sum_{j > i}^k ij P_i P_j \right\}$$

Using the position index, 95% confidence intervals were calculated as follows:

$$IC95\% = IP \pm 1.96(\sqrt{V(IP)})$$

These were the results in the three moments for every variable—13 items—:

Position index (IP) and confidence intervals (IC) in the three moments. CLIL cohort							
VAR	DES	September 2012		June 2013		June 2014	
		IP September 2012	IC September 2012	IP June 2013	IC June 2013	IP June 2014	IC June 2014
V1	My motivation to learn English in order to [...] (1-7)	0.72	0.60-0.85	0.86	0.78-0.94	0.96	0.93-0.99
V2	My attitude toward English speaking people is (1-7)	0.75	0.66-0.84	0.78	0.69-0.88	0.91	0.85-0.96
V3	My interest in foreign languages is (1-7)	0.81	0.72-0.89	0.88	0.83-0.94	0.92	0.88-0.97
V4	My desire to learn English is (1-7)	0.78	0.63-0.92	0.86	0.76-0.96	0.93	0.88-0.99
V5	My attitude toward learning English is (1-7)	0.78	0.67-0.90	0.85	0.77-0.93	0.93	0.88-0.98
V6	My attitude toward my English teacher is (1-7)	0.88	0.82-0.94	0.87	0.80-0.94	0.9	0.84-0.96
V7	My motivation to learn English for [...] (1-7)	0.84	0.75-0.94	0.9	0.83-0.97	0.96	0.92-1.00
V8	I worry about speaking English outside of class (1-7)	0.67	0.56-0.78	0.69	0.58-0.81	0.73	0.63-0.82
V9	My attitude toward my English course is (1-7)	0.81	0.74-0.87	0.78	0.68-0.89	0.88	0.83-0.94
V10	I worry about speaking in my English class (1-7)	0.62	0.52-0.72	0.69	0.55-0.83	0.76	0.64-0.88
V11	My motivation to learn English is (1-7)	0.84	0.74-0.95	0.89	0.83-0.96	0.95	0.92-0.98
V12	My parents encourage me to learn English (1-7)	0.77	0.64-0.90	0.82	0.69-0.94	0.87	0.77-0.96
V13	My motivation to learn Social Science is (1-7)	0.69	0.60-0.79	0.72	0.64-0.79	0.78	0.69-0.86

Table 68. IP and IC of all variables. CLIL cohort

Position index (IP) and confidence intervals (IC) in the three moments. NON-CLIL cohort							
VAR	DES	September 2012		June 2013		June 2014	
		IP September 2012	IC September 2012	IP June 2013	IC June 2013	IP June 2014	IC June 2014
V1	My motivation to learn English in order [...] is (1-7)	0.52	0.43-0.61	0.69	0.62-0.77	0.73	0.65-0.81
V2	My attitude toward English speaking people is (1-7)	0.68	0.58-0.78	0.61	0.51-0.71	0.63	0.63-0.72
V3	My interest in foreign languages is (1-7)	0.64	0.52-0.75	0.74	0.64-0.83	0.76	0.76-0.85
V4	My desire to learn English is (1-7)	0.73	0.63-0.83	0.7	0.61-0.79	0.78	0.78-0.85
V5	My attitude toward learning English is (1-7)	0.67	0.58-0.75	0.67	0.58-0.75	0.74	0.74-0.82
V6	My attitude toward my English teacher is (1-7)	0.85	0.77-0.94	0.78	0.66-0.89	0.85	0.85-0.93
V7	My motivation to learn English for [...] is (1-7)	0.76	0.66-0.85	0.82	0.74-0.90	0.85	0.85-0.92
V8	I worry about speaking English outside of class (1-7)	0.58	0.49-0.68	0.46	0.34-0.58	0.49	0.49-0.59
V9	My attitude toward my English course is (1-7)	0.77	0.70-0.84	0.61	0.53-0.69	0.68	0.68-0.76
V10	I worry about speaking in my English class (1-7)	0.33	0.25-0.40	0.42	0.32-0.51	0.4	0.40-0.48
V11	My motivation to learn English is (1-7)	0.74	0.65-0.83	0.69	0.61-0.78	0.67	0.67-0.76
V12	My parents encourage me to learn English (1-7)	0.79	0.70-0.88	0.76	0.67-0.86	0.8	0.80-0.88
V13	My motivation to learn Social Science is (1-7)	0.67	0.55-0.78	0.71	0.59-0.82	0.78	0.78-0.87

Table 69. IP and IC of all variables. Non-CLIL cohort

According to the tables above, the index position of each variable of the CLIL cohort in the different moments indicates a change towards more positive attitudes in all of them over the two years. On the other hand, in the non-CLIL cohort, change towards the better also took place on the whole, although to a lesser extent. Three of the variables (V2, V8 and V11) show that a slight decrease took place.

After the index position and 95% confidence intervals were elicited I calculated a point estimation of the difference in the position index between the first moment —September 2012— and the end of the programme in June 2014. I used the percentile bootstrap

method in order to elicit an estimation of the difference in the position index in both moments:

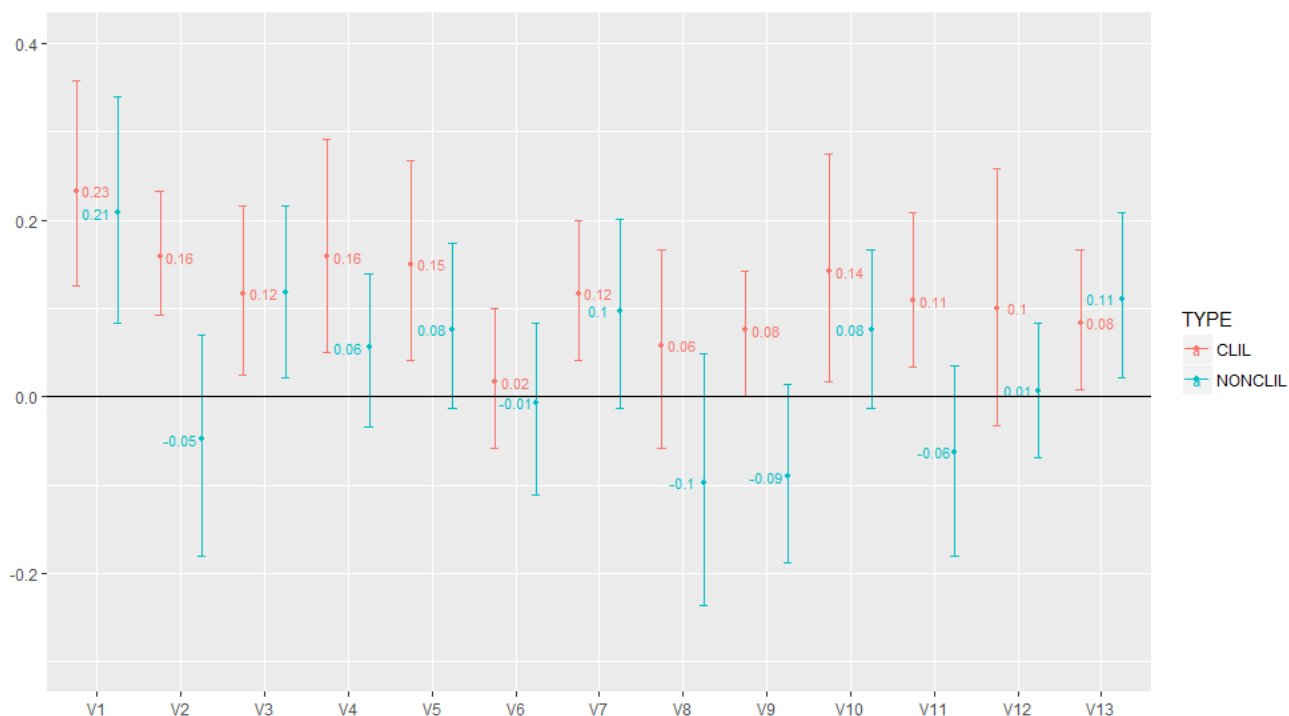


Figure 46. Estimation of IP difference in students' attitudes

After two years, both groups seemed to show more favourable attitudes and a higher degree of motivation, which were sustained in time. This might be explained by the common-core methodological components with both groups. Nonetheless, in the CLIL cohort the change was significant in 10 of the items and only 3 of them crossed the zero line, whereas the change produced in the non-CLIL group was not significant as 10 of the variables crossed the zero line.

In order to elicit a global score for the whole sample I used a different statistical procedure. As seen above, the questionnaire was made up of 13 items, which could be assessed through a 7-category scale based on a semantic differential. The maximum score was 91 (positive attitude) and the minimum was 13 (negative attitude). In relation to the maximum possible score and with a view to standardising it, I calculated an adherence index, ranging between 0 and 1, being 1 the value that corresponded to the most favourable

attitude. The adherence index was elicited through the following equation, in which  $x_i$  is the value of the  $i$ -th,  $r$  is the number of options and  $k$  is the number of items:

$$IA = \frac{1}{rK} \sum (x_i - 1)$$

The adherence index is a standardised global score of the scale and its value is 1 for every element of the scale, i.e. every student. The calculated mean of the adherence index (see table below) showed a progressive increase over the two years in the CLIL group— 0.6566, 0.6984 and 0.7566— whereas in the non-CLIL cohort the mean showed that there was almost no change from moment 1 to moment 2 —0.5751 to 0.571— and a slight change in moment 3 —0.6044—. Considering the third quartile, i.e. the value over which we find 25% of the elements of the sample, the difference between both cohorts in the three moments became apparent, since the non-CLIL group showed a lower increase: from 0.7527 to 0.8049 in the CLIL group; and from 0.6593 to 0.6813 in the non-CLIL cohort. Considering the median, i.e. the value separating the upper half from the lower half of a dataset, 50% of the CLIL group were above 0.7747 by the end of the programme, but the median was 0.6154 in the case of their non-CLIL counterparts. These results underpinned the statement that the values were higher in the CLIL group:

Summary: main descriptive statistical calculations of the adherence index							
		Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	0.3626	0.5797	0.6868	0.6566	0.7527	0.8242
	June 2013	0.4835	0.6181	0.7363	0.6984	0.7802	0.8352
	June 2014	0.6264	0.7143	0.7747	0.7566	0.8049	0.8352
NON-CLIL	September 2012	0.3736	0.5247	0.6044	0.5751	0.6593	0.6923
	June 2013	0.3736	0.4753	0.6044	0.5710	0.6621	0.7363
	June 2014	0.4835	0.5165	0.6154	0.6044	0.6813	0.7143

Table 70. Adherence index descriptive statistical calculations. Students

The following box plot shows a summary of the values of the adherence index above for both cohorts in the three different moments:

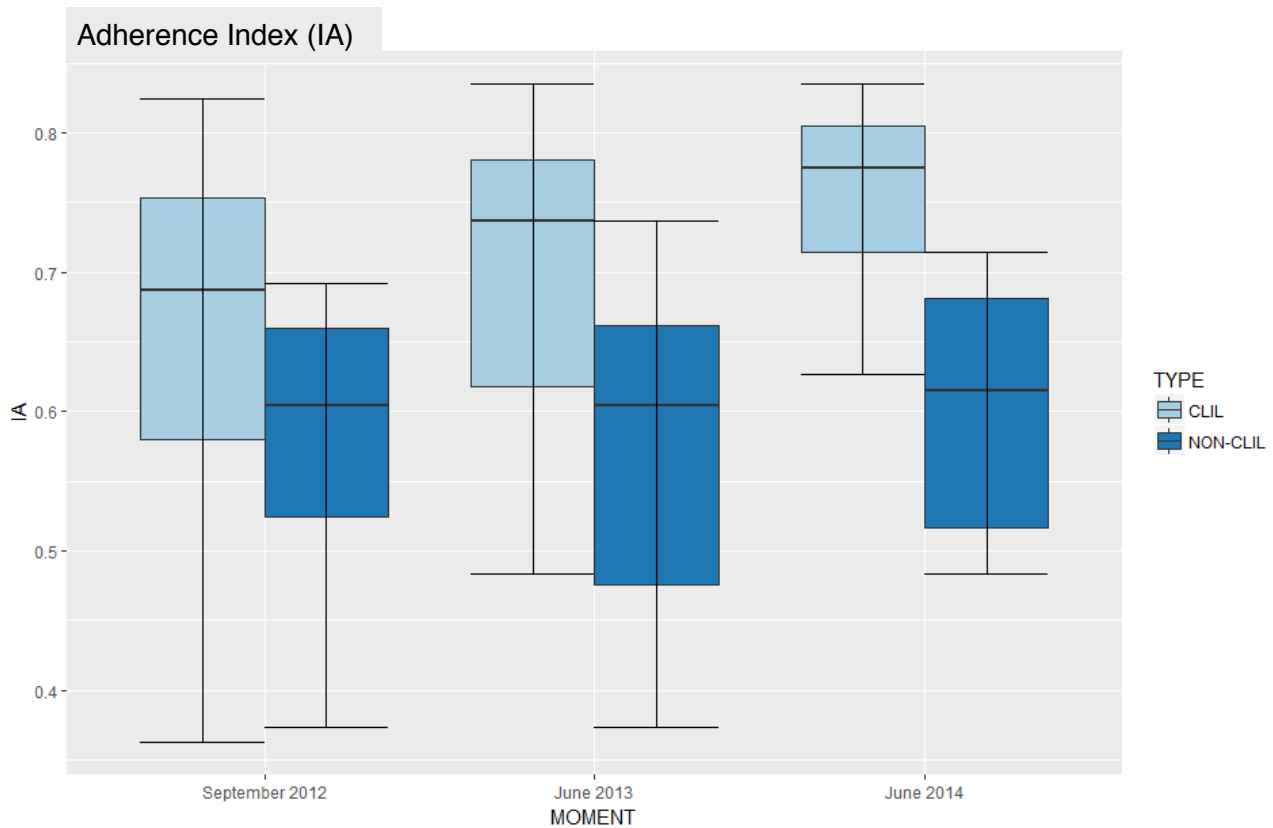


Figure 47. Adherence index representing attitudes for both cohorts in the different moments. Students

According to the adherence index, both groups developed and sustained more positive attitudes and a higher degree of motivation over the two years of the project. Nonetheless, the CLIL cohort's results were significantly higher.

After calculating the position and adherence indices, I decided to use some statistical tests so as to determine whether the adherence index was the same in the three moments or not. Prior to making a decision about which statistical tests to use, I tested for normality through the Shapiro-Wilks test, which rejects the hypothesis of normality when the p-value is less than or equal to 0.05. The test failed normality in some of the cases and this was the reason for me resorting to the same nonparametric test used in the analysis of results in languages and content in order to carry out comparisons between the three measurements: the Friedman Rank Sum Test.

As explained in the analyses of languages in the previous sections, the Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It is useful when one group is measured three or more times or when samples do not need to be normally distributed. The null hypothesis being contrasted was that the values of the adherence index in each of the three moments had the same probability distribution as opposed to the alternative hypothesis that the probability distribution in at least one of the moments was different from the rest. In other words, this test allowed me to prove that the probability distribution of the adherence index for both CLIL and non-CLIL cohorts was either the same in the three moments or different in at least one of them.

As regards the CLIL cohort, this was the result of the test: Friedman Chi-squared = 26.225,  $df = 2$ ,  $p\text{-value} = 2.019e-06$ . The  $p\text{-value}$  was under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. Thereafter, and in order to determine which moments revealed differences, I carried out a post-hoc analysis consisting of pairwise comparisons using the Wilcoxon Signed Rank test and the Bonferroni  $p\text{-value}$  adjustment method. In this case, I found differences, on the one hand, between September 2012 and June 2014 (0.00095) and, on the other hand, between June 2013 and June 2014 (0.00095). No difference was found between September 2012 and June 2013 (0.34960).

As regards the non-CLIL cohort, this was the result of the test: Friedman Chi-squared = 7.3556,  $df = 2$ ,  $p\text{-value} = 0.02528$ . The  $p\text{-value}$  was also under 0.05, thus rejecting the null hypothesis of no difference in probability distribution in the three moments. The post-hoc analysis revealed differences only between June 2013 and June 2014 (0.0034). No significant differences were found either between September 2012 and June 2013 (1.000) or between September 2012 and June 2014 (0.4712).

Summarising, differences in the adherence index in the three measurements of both cohorts were found and results seemed to indicate that progress in the development of more positive attitudes and motivations was different in both groups. The CLIL cohort's



scores were significantly higher and sustained in time, whereas the non-CLIL group’s answers showed lower scores and significant change only happened in the second year of the programme.

With a view to complementing the measurement in the attitudinal/motivational test above, the students completed the third part of the questionnaire, which comprised some additional questions in which they were asked to indicate their preference for a language of instruction (Galician, Spanish or English), to give their opinion about the difficulty of learning through a foreign language as well as about task and project based learning. Sector diagrams were designed for descriptive analysis of each question:

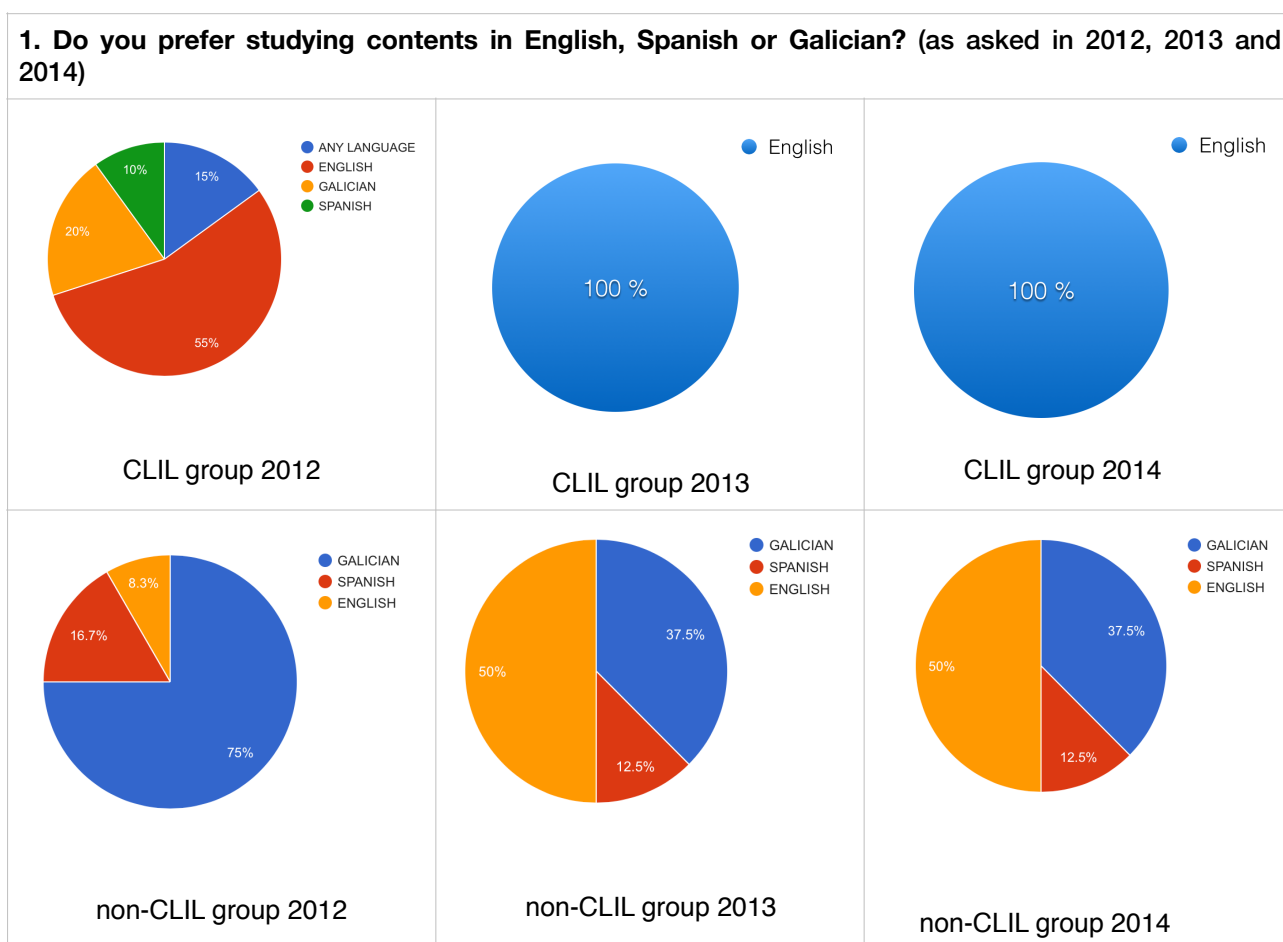


Figure 48. Question 1. Part 3. Students’ questionnaire

Comparing the answers of both groups, there was a clear preference of the CLIL cohort for English as a vehicular language at the start. English was preferred over Galician and Spanish by 55% of respondents. The percentage went up to 100% after year one and was

sustained after year two. This matches the results of the second part of the questionnaire analysed above. CLIL students' motivation and attitudes towards English were more favourable at the start of the project and were improved and sustained over the two years.

On the other hand, 75% of the non-CLIL group preferred Galician at the start and only 8.3% of the students chose English. After year one, their preference for English rose up to 50%, and this percentage was sustained after year two. As said in section 6.4.1., in methodological terms, the only difference between the two groups analysed was the fact that the CLIL cohort was learning Social Science through English. Nonetheless, the same pedagogical practice was used with both groups: curriculum integration through task and project based learning, multilingual approach to language learning, use of other curricular content in the English class and the international character of projects —Erasmus-funded projects, trips abroad or eTwinning—. Methodology could thus explain the rise in the students' preference for English in the non-CLIL cohort over the two years. This rise matches the attitudes/motivation measurement done in the second part of the questionnaire. The non-CLIL group developed more positive attitudes to English, which were sustained over the two years.

In line with the methodological commonalities, as other curricular content was used in the English class, both groups were asked question number 2. Regarding the students' view on the difficulty of studying Social Science through English, both groups shared the same opinion at the start of the project:

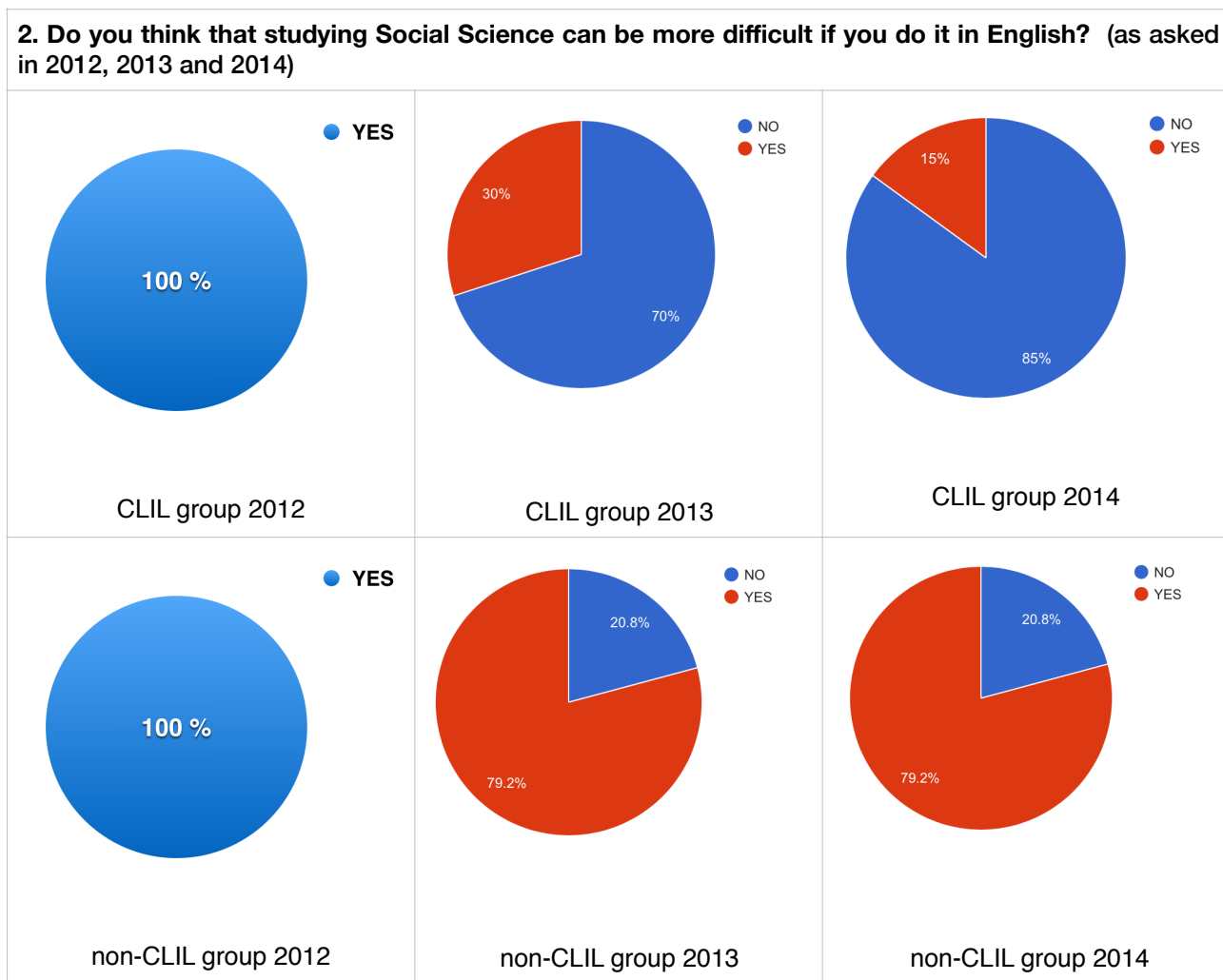


Figure 49. Question 2. Part 3. Students' questionnaire

The initial opinion changed throughout the project in both cohorts. After two years, almost 80% of the non-CLIL students still thought it was more difficult to learn content through English, whereas only 15% of the CLIL students shared the same view. On top of the common methodological core, the CLIL students were learning Social Science through English, which made their perception on the difficulty of it decrease.

Questions number 3 and 4, posed differently in the three moments, were related to the methodology used (task and project based learning). The answers at the start were slightly more positive in the CLIL group:

**3. This year we are going to work through tasks: you will learn English doing things related to other areas (using technology). What do you think? (as asked in 2012)**

**3. This year we have worked through tasks: you have learned English doing things related to other areas. And we have used a lot of technology!. What's your opinion? (as asked in 2013 and 2014)**

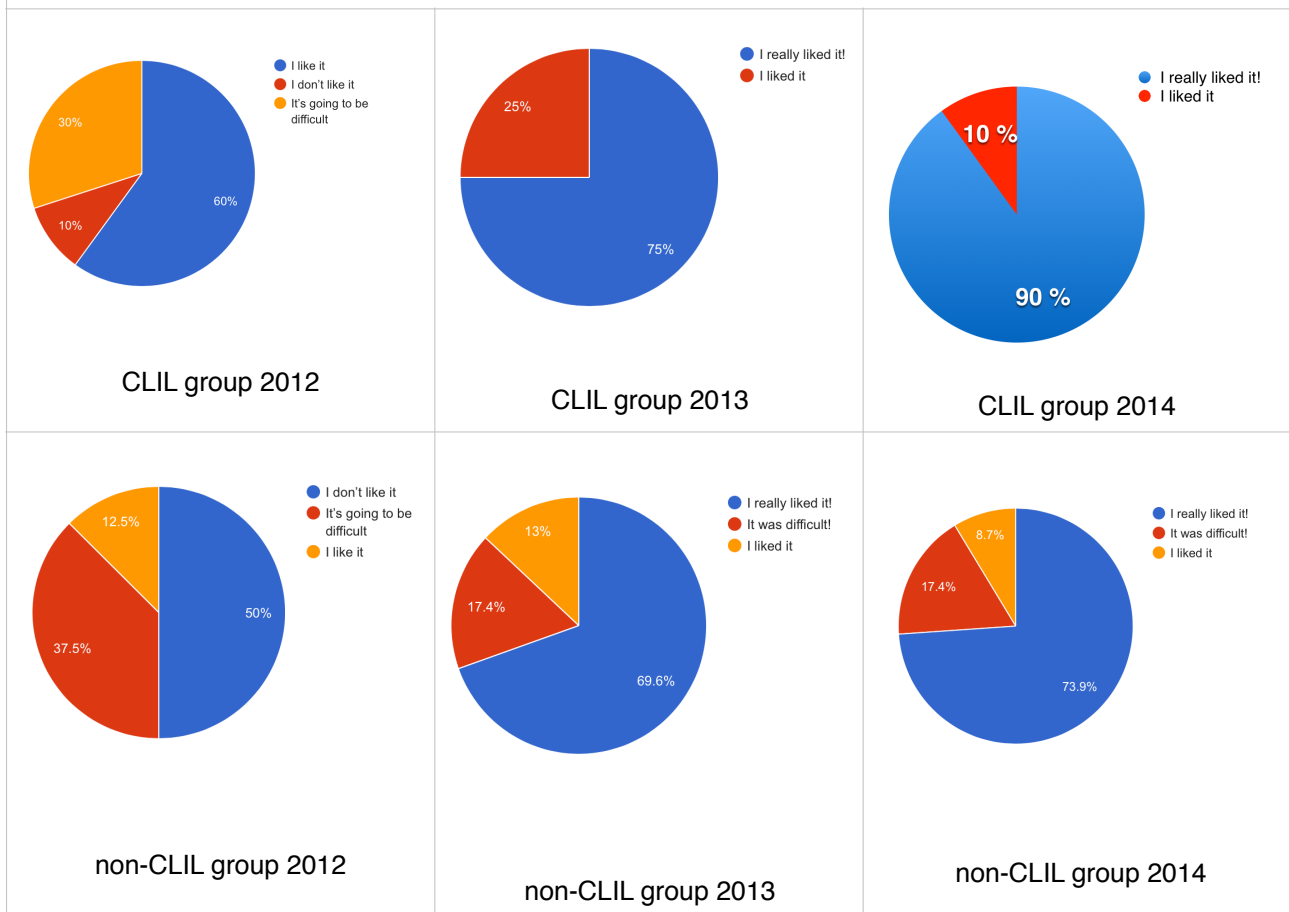


Figure 50. Question 3. Part 3. Students' questionnaire

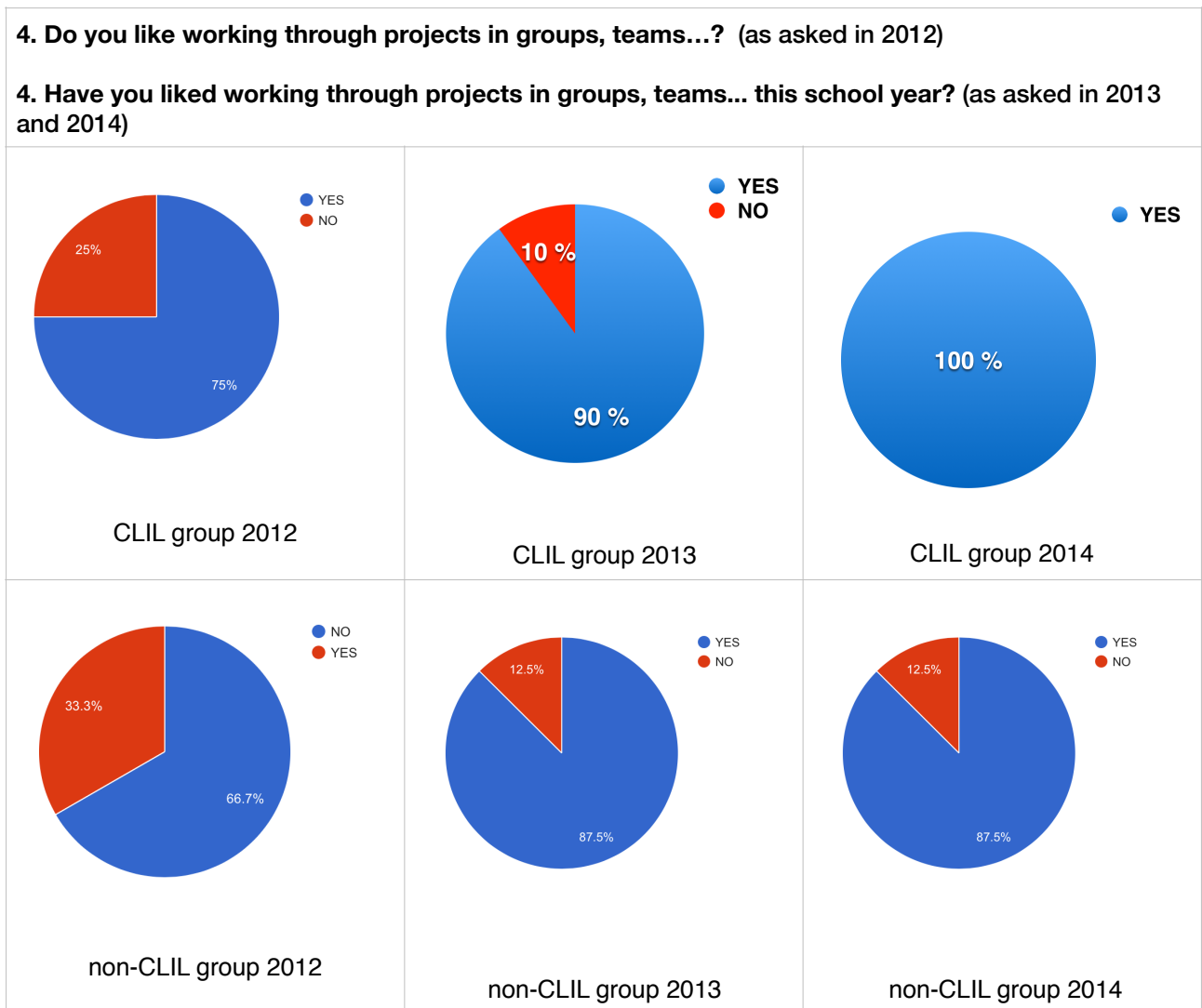


Figure 51. Question 4. Part 3. Students' questionnaire

Although the CLIL cohort showed a slightly more favourable view from the start, the truth is that all the students' perceptions on the methodology used were really positive and they improved until the very end of the project in 2014.

Only CLIL students were asked question number 5 after year one and year two:

**5. Do you want to go on with the CLIL programme (only CLIL students)? (as asked in 2013 and 2014)**

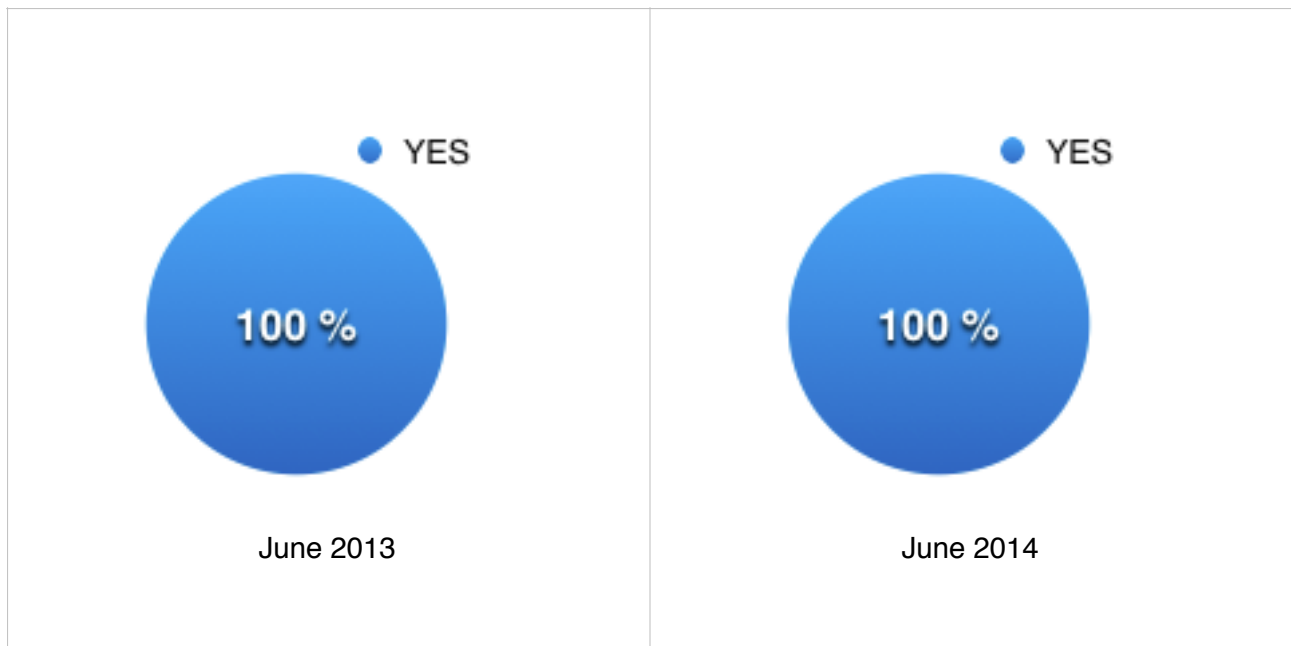


Figure 52. Question 5. Part 3. Students' questionnaire

Answers showed not only how positive their view of the programme was but also their commitment to it.

As seen in section 4.1., research studies have constantly shown that students involved in CLIL show positive views and attitudes as well as higher motivation regarding the foreign language. Our results tally with that view, although in our findings the non-CLIL cohort has also shown and developed positive attitudes and motivation. As seen in section 4.1., there seems to be a need for research dealing with students' views and perceptions, not only in relation to the foreign language but also regarding other parameters: attitudes towards the learning situation, towards content learning, towards the methodology used, towards the teacher, etc. In our measurement of students' attitudes and motivations, we have considered those parameters.

As regards favourable attitudes sustained in time, Lasagabaster and Doiz's (2015) study revealed results different from the previous literature. According to them, motivation towards the foreign language might not be sustained in the long term, and that is why the authors suggested the need for future research from a longitudinal qualitative perspective.

In our longitudinal study, our findings seem to contradict that view, as they show attitudes and motivations improved and were sustained over the two years of the project.

#### **7.1.1.6. Summary of results**

In section 7.7.1. I have dealt with the presentation and analysis of data related to:

- 1) student's performance in the different languages and content learning;
- 2) and students's attitudes, motivations and perceptions towards language learning.

As regards languages, the CLIL cohort showed an improvement in their competence in the three languages over the two years of the project, although the non-CLIL students also seemed to show improvement to different degrees in English and Galician.

1) With regard to English, both cohorts showed a significant improvement in terms of global competence, listening, reading, writing and speaking. The CLIL group improved to a higher degree than their non-CLIL counterparts. Nonetheless, the non-CLIL cohort also showed an overall improvement in all tests. This might be explained by the fact that the same methodology was used with both cohorts.

2) Concerning Galician, the CLIL cohort showed an overall improvement after year one and year two as regards global competence, reading and writing. CLIL students attained better results in listening and speaking after the first year, but they did not show any improvement from year one to year two. Regarding the non-CLIL group, no significant changes were observed in relation to listening, writing and speaking. Significant changes were found in their global competence after year two as well as in the reading skill after year one.

3) As far as Spanish is concerned, the CLIL cohort showed an overall improvement in Spanish in the three moments as regards global competence, reading and writing.

Regarding listening and speaking, CLIL students attained better results from moment two to moment three. On the other hand, regarding the non-CLIL group, no significant changes were observed either on the overall competence or the different skills.

Overall positive results of both cohorts in the different languages (related to research question number 6: **RQ6: Is CLIL providing a framework for language learning on a plurilingual basis?**) might be related to the fact that integration as well as its impact on classroom practice were at the core of the pedagogical part in our project (see chapter 3). During the two-year CLIL programme, language interdependence between the different languages was present in the language lessons since language teachers designed together and language tasks were similar in the different languages. Nonetheless, the CLIL cohort showed better results all the way through and this might be due to the specific CLIL component.

As to content learning, CLIL did not seem to make any impact on CLIL students' learning of content over the two years of implementation. Findings showed, however, that the non-CLIL cohort did worse only between the first and the second moment, although no significant change was found between the second and the third moments.

Regarding students' attitudes and motivations, the CLIL cohort's scores were significantly higher and sustained in time, whereas the non-CLIL group's answers showed lower scores and significant change only happened in the second year of the programme. Although the CLIL cohort showed a slightly more favourable view from the start, the truth is that all the students' perceptions on the methodology used were really positive and they improved until the very end of the project in 2014.

In the next sections, I will present and analyse data related to families' and teachers' views and perceptions about language learning in general, and CLIL implementation in particular with a view to complementing the data elicited from students.



## 7.1.2. Families

### 7.1.2.1. Attitudes, motivations and perceptions

In this section I will analyse the data related to the second research question:

#### **RQ2: Does CLIL have any impact on parents' attitudes and motivations towards language learning?**

As seen in section 6.5.3.2., a questionnaire was used with the whole sample of parents in order to measure attitudes and motivations. The questionnaire was made up of three parts:

- 1) The first one dealt with personal information such as gender, age, degree of bilingualism —Galician/Spanish—, academic and socio-economic background and language competence in foreign languages (see section 6.4.2.).
- 2) The second section (items 1–12) was the main part of the questionnaire. Parents had to assess 12 items related to both their own attitudes towards language learning and their motivations about their kids learning languages. Items were related to the following aspects: attitudes towards the learning situation, integrativeness, motivation and parental encouragement.
- 3) The third part was to be completed only by CLIL students' parents and was only delivered by the end of year one and year two. It featured questions on their opinion about CLIL implementation.

The sample that completed the questionnaire was the one described in section 6.4.2.

As said above, the second part of the questionnaire was made up of 12 items, which the parents had to assess by means of a semantic differential format scaled from 1 to 7, as the

one seen in section 6.5.3.1. in the questionnaire used with students. The language component of the test was not only related to English, but also to Spanish and Galician. Furthermore, two items were added in relation to attitudes towards CLIL. Some of the items referred to the parents themselves whereas some others referred to how they felt about their children's learning languages and the learning context. This was the Galician version of the test the parents completed. Items appear translated into English in the tables below.

1. *A miña motivación para que o meu fillo/a aprenda inglés para ser quen de comunicarse coas persoas que falan inglés é:*

POUCA \_\_\_ 1: \_\_\_ 2: \_\_\_ 3: \_\_\_ 4: \_\_\_ 5: \_\_\_ 6: \_\_\_ 7 MOITA

2. *A miña actitude cara á persoas que teñen como lingua o inglés é:*

DESFAVORABLE \_\_\_ 1: \_\_\_ 2: \_\_\_ 3: \_\_\_ 4: \_\_\_ 5: \_\_\_ 6: \_\_\_ 7 FAVORABLE

3. *O meu interese cara ao inglés e as linguas estranxeiras é:*

MOI BAIXO \_\_\_ 1: \_\_\_ 2: \_\_\_ 3: \_\_\_ 4: \_\_\_ 5: \_\_\_ 6: \_\_\_ 7 MOI ALTO

4. *O meu desexo de aprender inglés é:*

POUCO \_\_\_ 1: \_\_\_ 2: \_\_\_ 3: \_\_\_ 4: \_\_\_ 5: \_\_\_ 6: \_\_\_ 7 MOITO

5. *O meu desexo de que o meu fillo/a aprenda inglés é:*

POUCO \_\_\_ 1: \_\_\_ 2: \_\_\_ 3: \_\_\_ 4: \_\_\_ 5: \_\_\_ 6: \_\_\_ 7 MOITO

6. *A miña actitude cara a aprendizaxe do inglés é:*

DESFAVORABLE \_\_\_ 1: \_\_\_ 2: \_\_\_ 3: \_\_\_ 4: \_\_\_ 5: \_\_\_ 6: \_\_\_ 7 FAVORABLE

7. *A miña actitude cara a aprendizaxe do español é:*

DESFAVORABLE \_\_\_ 1: \_\_\_ 2: \_\_\_ 3: \_\_\_ 4: \_\_\_ 5: \_\_\_ 6: \_\_\_ 7 FAVORABLE

8. *A miña actitude cara a aprendizaxe do galego é:*

DESFAVORABLE \_\_\_ 1: \_\_\_ 2: \_\_\_ 3: \_\_\_ 4: \_\_\_ 5: \_\_\_ 6: \_\_\_ 7 FAVORABLE

9. *A miña actitude cara ao feito de que os nenos/as aprendan materias en inglés é:*

DESFAVORABLE \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 FAVORABLE

10. A miña preferencia por que os nenos estuden Ciencias Sociais en inglés mellor que en galego é:

MOI BAIXA \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 MOI ALTA

11. Contribúo a que o meu fillo/a aprenda inglés na casa con películas ou outros recursos en inglés:

POUCO \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 MOITO

12. Contribúo a que o meu fillo/a aprenda inglés facendo que vaia ao estranxeiro ou que participe en actividades en inglés:

POUCO \_\_\_1:\_\_\_2:\_\_\_3:\_\_\_4:\_\_\_5:\_\_\_6:\_\_\_7 MOITO

For the sake of analysis, I designed bar charts for data presentation and description, and then carried out a number of statistical operations in order to measure whether differences between both cohorts were significant.

Likert-type bar charts were designed for every item (variable) in the three different moments —September 2012, June 2013 and June 2014— and for each of the cohorts — CLIL parents and non-CLIL parents—. In order to provide a descriptive analysis of the parents' responses in the questionnaire items were grouped into some of the different components of attitudinal/motivational analysis seen in sections 2.3.2. and 6.5.3.1.: integrativeness, motivation, attitudes to the learning situation and parental encouragement.

1) As seen in section 2.3.2, **integrativeness** is related to group-specific affective reactions. It shows an openness to other cultures in general, and the foreign culture in particular.

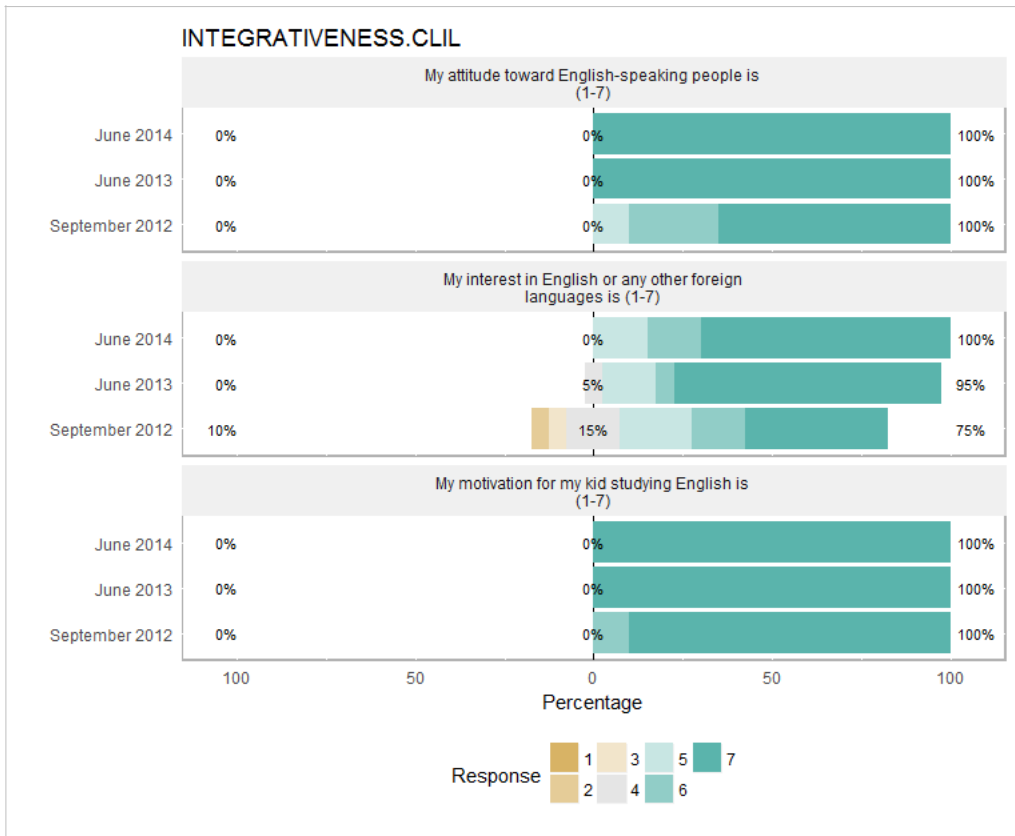


Figure 53. Integrativeness in the CLIL group's parents

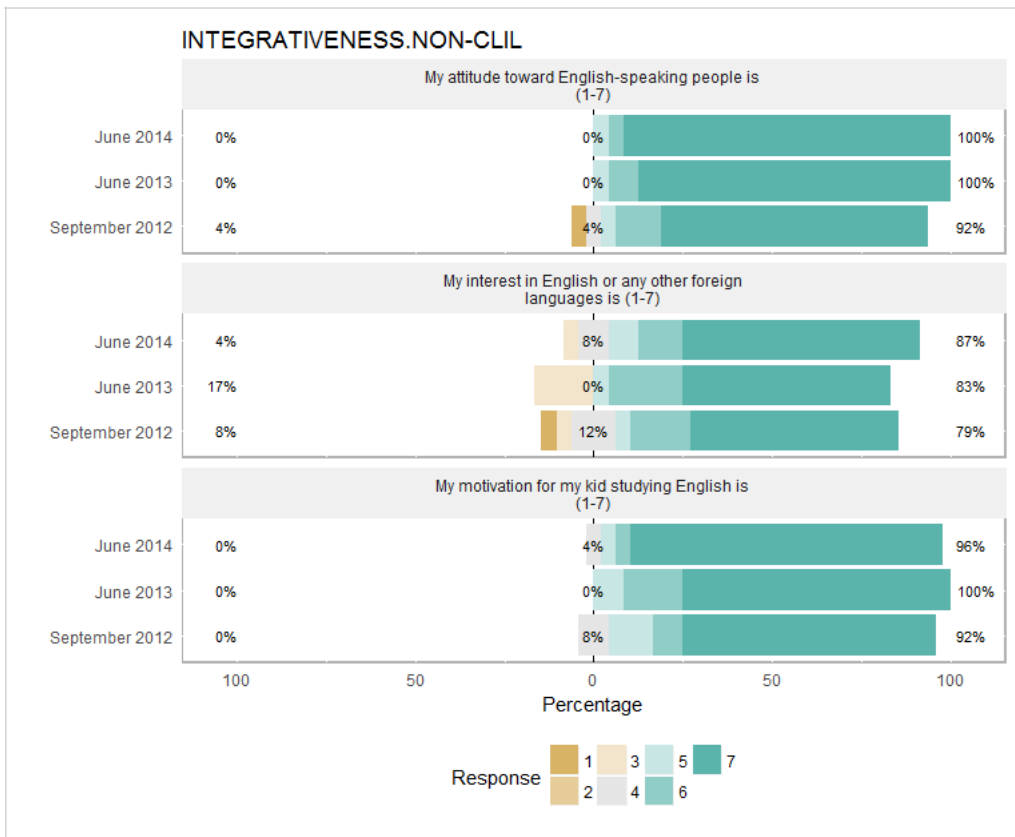


Figure 54. Integrativeness in the non-CLIL group's parents

Results revealed that both cohorts showed really positive attitudes towards foreign languages, and those positive attitudes were sustained in the different moments in a similar fashion in both groups.

2) As seen in section 2.3.2, **motivation** fundamentals are identifiable by three measures: effort and persistence, the willingness to learn the language, and the affective reactions towards the learning of the language. In this group I included items related to parents' motivation for their children to learn English, their own affective attitudes towards the different languages and their personal willingness to learn English themselves.

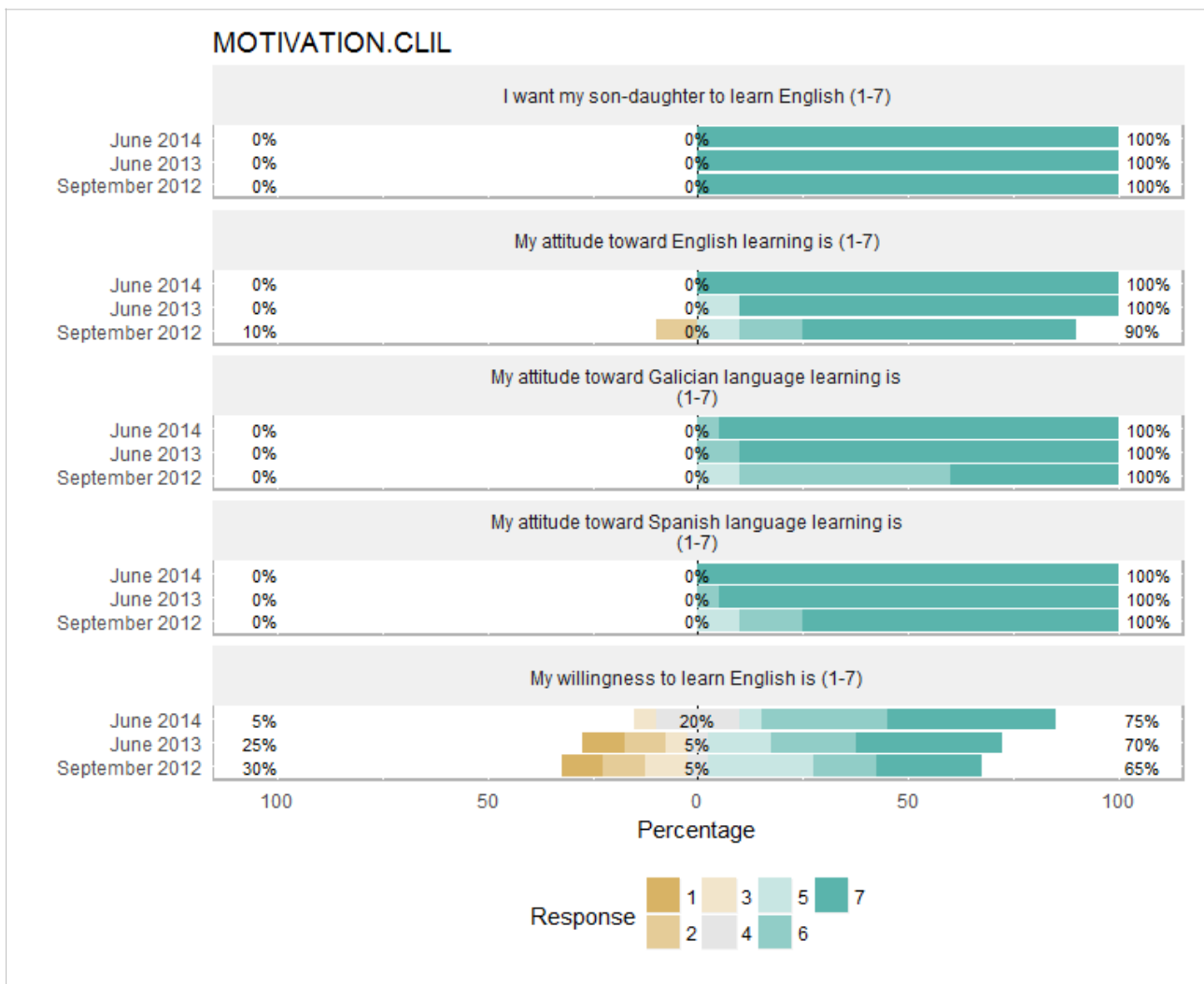


Figure 55. Motivation in the CLIL group's parents

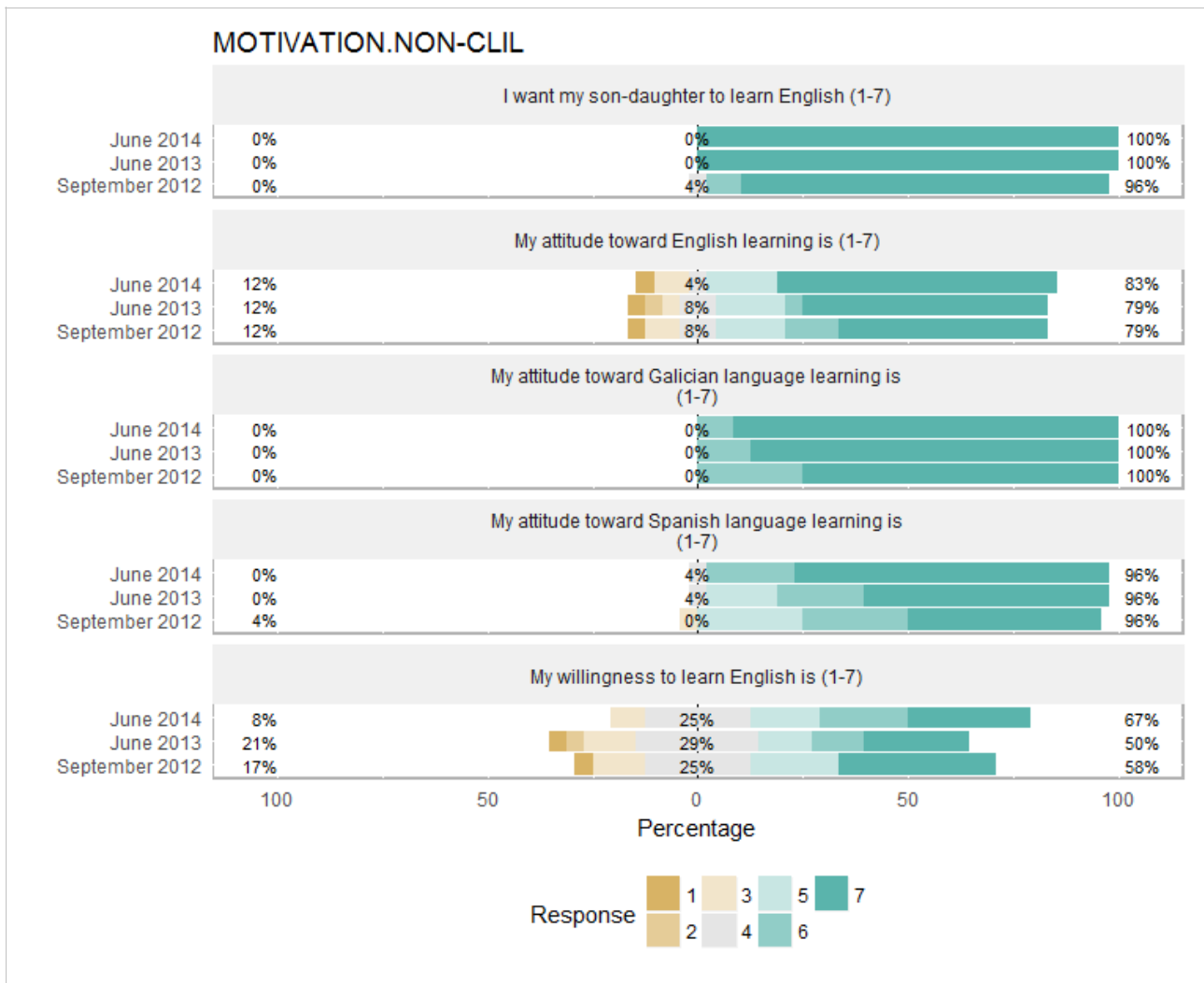


Figure 56. Motivation in the non-CLIL group’s parents

Motivation-related items were positive at the start in both groups of parents and show an almost identical evolution as regards the different moments.

3) As seen in section 2.3.2, **attitudes towards the learning situation** refer to affective reactions to any classroom-related aspect: the quality and availability of materials, classroom atmosphere, the curriculum, the teacher, etc. The items I included in this group are concerned with the parents’ affective reaction towards CLIL. Both groups were assessing the model, although only the children of one of them were taking part in the CLIL project.

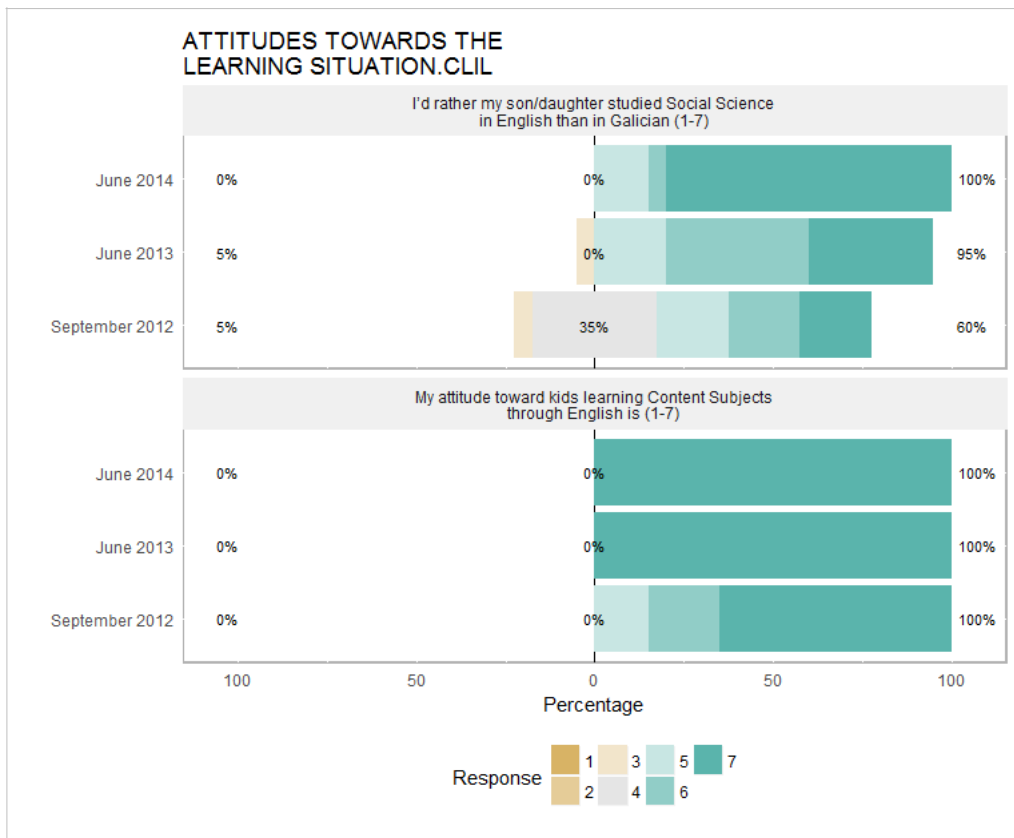


Figure 57. Attitudes towards the learning situation in the CLIL group's parents

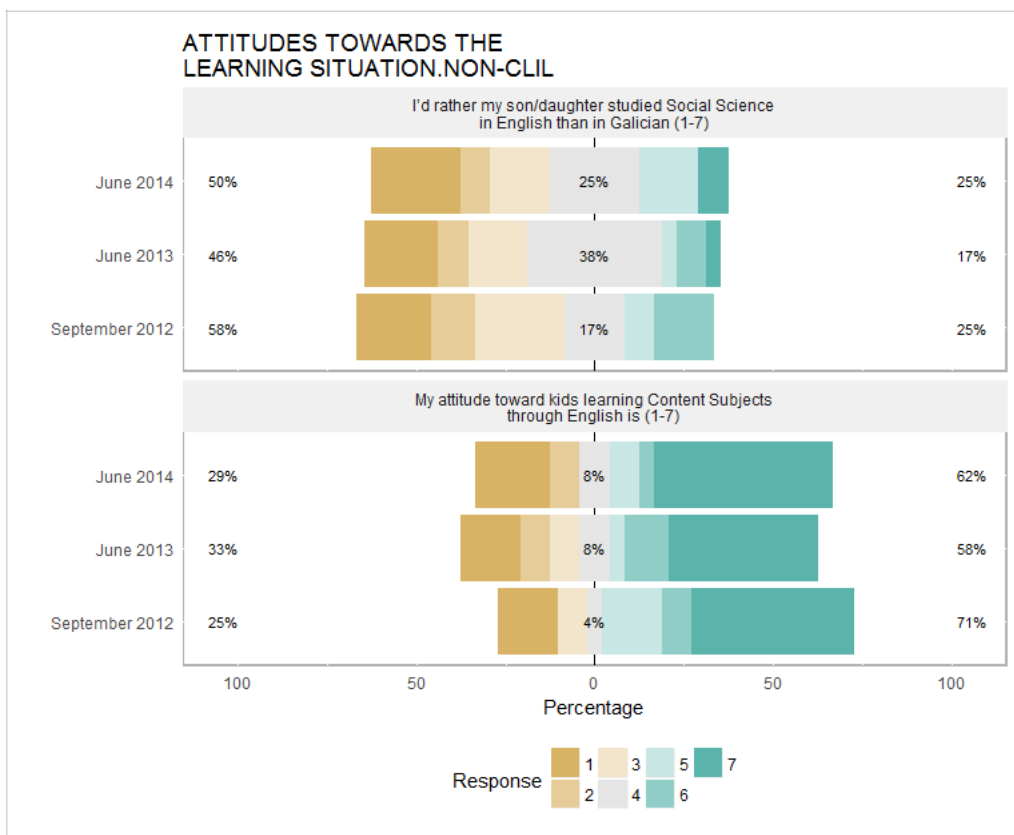


Figure 58. Attitudes towards the learning situation in the non-CLIL group's parents

The differences between both groups in this part of the questionnaire seem quite significant. While the parents in the CLIL cohort showed really favourable attitudes from the start regarding both the vehicular language for learning content and their attitude towards the CLIL model, the parents in the other group showed some mixed feelings about it and a clear preference for Galician as the vehicular language for content learning.

Interestingly, the parents' attitudes in the CLIL group in the first item showed a greater preference for English over the duration of the programme, their positive attitudes towards and their full support of CLIL already after the first year and up to the end of the programme. Conversely, the parents in the non-CLIL cohort did not change their preference for Galician and, as regards their attitude towards CLIL, their assessment of the item, despite being positive, showed a slight decrease at the end of year two. These attitudes could be one of the keys to understanding students' motivations for enrolling ( or not) in a CLIL programme.

4) The item related to **parental encouragement** assesses the extent to which the parents support their children to learn English. In section 7.1.1.5., according to both CLIL and non-CLIL groups of students, their parents' support was strong from the start. The charts showed that parental encouragement improved and was sustained after two years in both cohorts.

Nonetheless, according to the families, the picture seems to be quite different between the parents in both cohorts, as the answers in the non-CLIL group seem to indicate a lack of support regarding the learning of English. The tables below clearly show that the balance leant towards parental encouragement in the CLIL group, whereas the scales tipped against support in the non-CLIL counterpart.



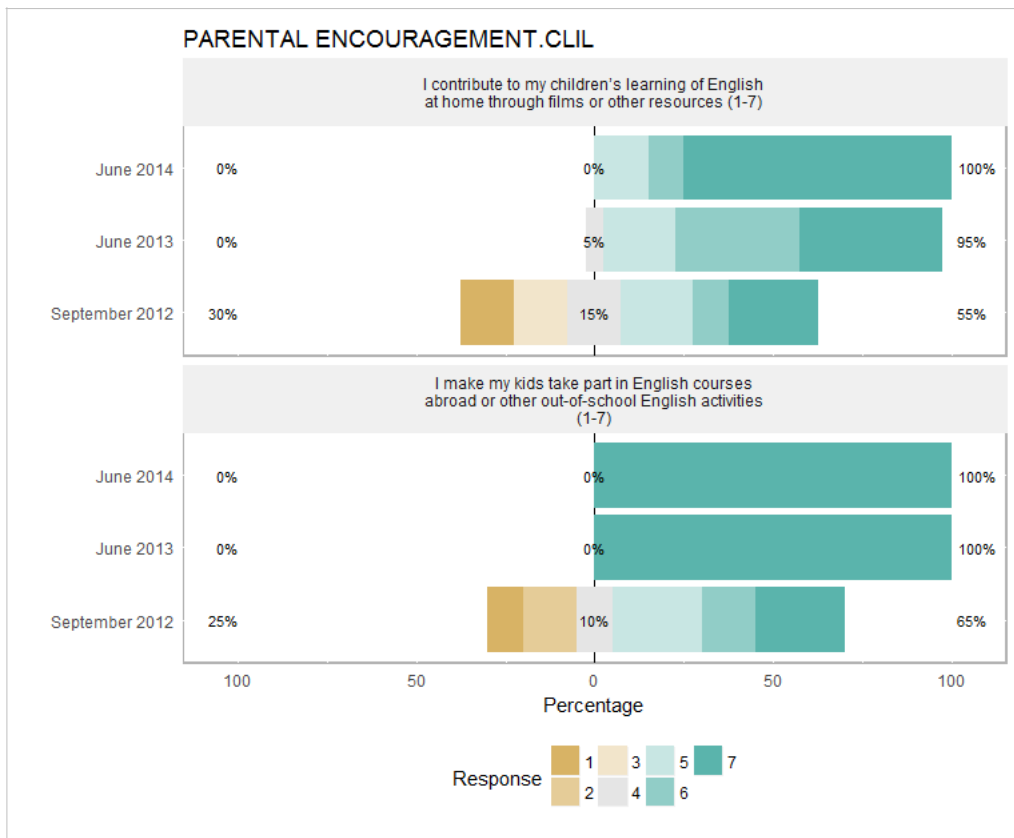


Figure 59. Parental encouragement in the CLIL group's parents

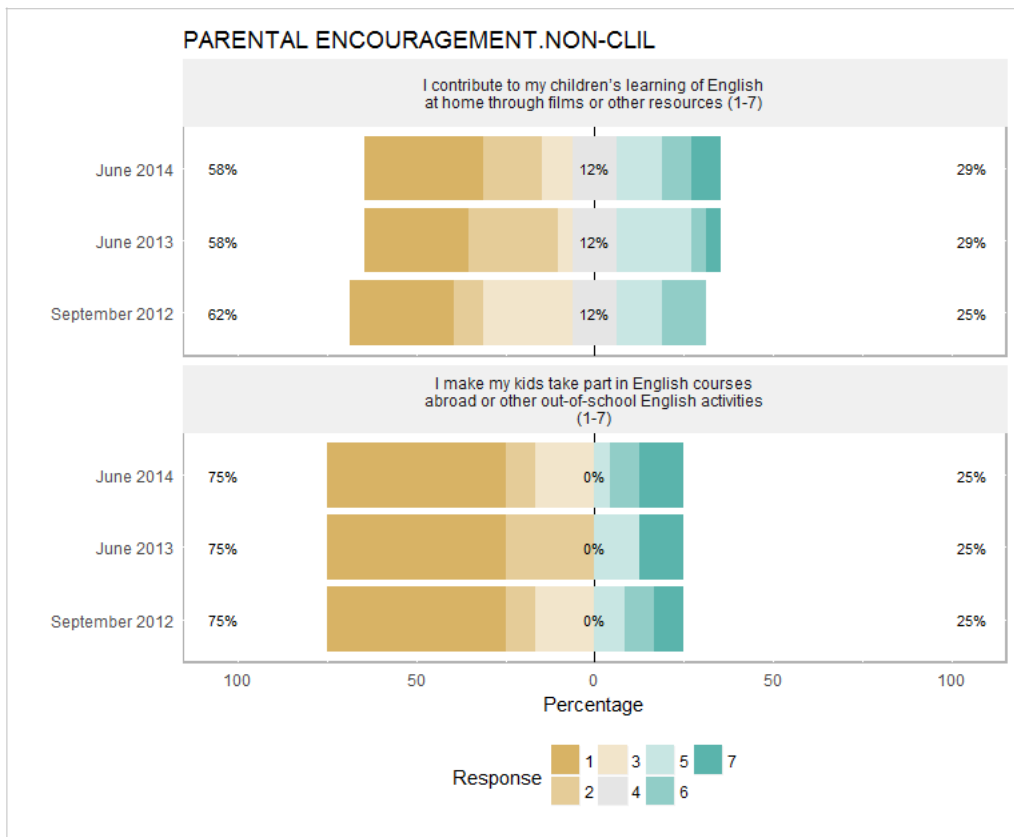


Figure 60. Parental encouragement in the CLIL group's parents

Parents's answers in the CLIL group showed they were more supportive by the end of year two. From 55% and 65% at the start, their support went up to 100% in both items over the two years. On the other hand, the answers provided by the parents in the non-CLIL cohort show their support was pretty weak and did not improve over the two years whatsoever.

In order to analyse differences between both cohorts, I carried out a number of statistical operations with a view to determining whether differences were significant or not. I calculated the position index of every variable as well as 95% confidence intervals following the development used by Sánchez (2004), explained in section 7.1.1.5. A position index is an inference-related statistical operation which serves the purpose of determining the position of a score within a group of scores. It is really useful to quantify the global position of a sample with regard to a categorical variable —i.e. the one that can take on one of a limited number of possible values—.

These were the results in the three moments for every variable—12 items—:

Position index (IP) and confidence interval (IC) in the three moments. CLIL parents		September 2012		June 2013		June 2014	
VAR	DES	IP September 2012	IC September 2012	IP June 2013	IC June 2013	IP June 2014	IC June 2014
V1	My motivation for my kid studying English [...] is (1-7)	0.98	0.96-1.01	1	1.00-1.00	1	1.00-1.00
V2	My attitude toward English-speaking people is (1-7)	0.92	0.88-0.97	1	1.00-1.00	1	1.00-1.00
V3	My interest in English or any other foreign languages is (1-7)	0.76	0.65-0.87	0.92	0.85-0.98	0.92	0.87-0.98
V4	My willingness to learn English is (1-7)	0.62	0.47-0.76	0.68	0.52-0.83	0.8	0.71-0.89
V5	I want my son-daughter to learn English (1-7)	1	1.00-1.00	1	1.00-1.00	1	1.00-1.00
V6	My attitude toward English learning is (1-7)	0.86	0.75-0.97	0.97	0.92-1.01	1	1.00-1.00
V7	My attitude toward Spanish language learning is (1-7)	0.94	0.89-0.99	0.99	0.98-1.01	1	1.00-1.00
V8	My attitude toward Galician language learning is (1-7)	0.88	0.84-0.93	0.98	0.96-1.01	0.99	0.98-1.01
V9	My attitude toward kids learning Content Subjects through English is (1-7)	0.92	0.86-0.97	1	1.00-1.00	1	1.00-1.00
V10	I'd rather my son/daughter studied Social Science in English than in Galician (1-7)	0.69	0.60-0.78	0.83	0.76-0.91	0.94	0.89-0.99
V11	I contribute to my children's learning of English at home [...] (1-7)	0.59	0.44-0.74	0.85	0.79-0.91	0.93	0.88-0.99
V12	I make my kids take part in English courses abroad or [...] (1-7)	0.62	0.47-0.76	1	1.00-1.00	1	1.00-1.00

Table 71. IP and IC of all variables. CLIL group's parents

Position index (IP) and confidence interval (IC) in the three moments. NON-CLIL parents		September 2012		June 2013		June 2014	
VAR	DES	IP September 2012	IC September 2012	IP June 2013	IC June 2013	IP June 2014	IC June 2014
V1	My motivation for my kid studying English [...] is (1-7)	0.9	0.84-0.97	0.94	0.90-0.99	0.96	0.91-1.01
V2	My attitude toward English-speaking people is (1-7)	0.9	0.81-0.99	0.97	0.94-1.00	0.98	0.95-1.01
V3	My interest in English or any other foreign languages is (1-7)	0.83	0.72-0.93	0.84	0.74-0.94	0.88	0.80-0.96
V4	My willingness to learn English is (1-7)	0.68	0.57-0.79	0.63	0.52-0.75	0.73	0.64-0.82
V5	I want my son-daughter to learn English (1-7)	0.97	0.92-1.01	1	1.00-1.00	1	1.00-1.00
V6	My attitude toward English learning is (1-7)	0.78	0.68-0.89	0.79	0.67-0.91	0.83	0.72-0.94
V7	My attitude toward Spanish language learning is (1-7)	0.85	0.78-0.92	0.89	0.83-0.95	0.94	0.90-0.99
V8	My attitude toward Galician language learning is (1-7)	0.96	0.93-0.99	0.98	0.96-1.00	0.99	0.97-1.00
V9	My attitude toward kids learning Content Subjects through English is (1-7)	0.69	0.54-0.84	0.63	0.47-0.79	0.65	0.48-0.81
V10	I'd rather my son/daughter studied Social Science in English than in Galician (1-7)	0.38	0.27-0.49	0.4	0.29-0.51	0.39	0.27-0.51
V11	I contribute to my children's learning of English at home [...] (1-7)	0.35	0.23-0.46	0.33	0.21-0.46	0.35	0.22-0.49
V12	I make my kids take part in English courses abroad or [...] (1-7)	0.28	0.14-0.42	0.25	0.11-0.39	0.29	0.14-0.44

Table 72. IP and IC of all variables. Non-CLIL group's parents

After the index position and 95% confidence intervals were elicited I calculated a point estimation of the difference in the position index between the first moment —September 2012— and the end of the programme in June 2014. I used the percentile bootstrap method in order to elicit an estimation of the difference in the position index in both moments:

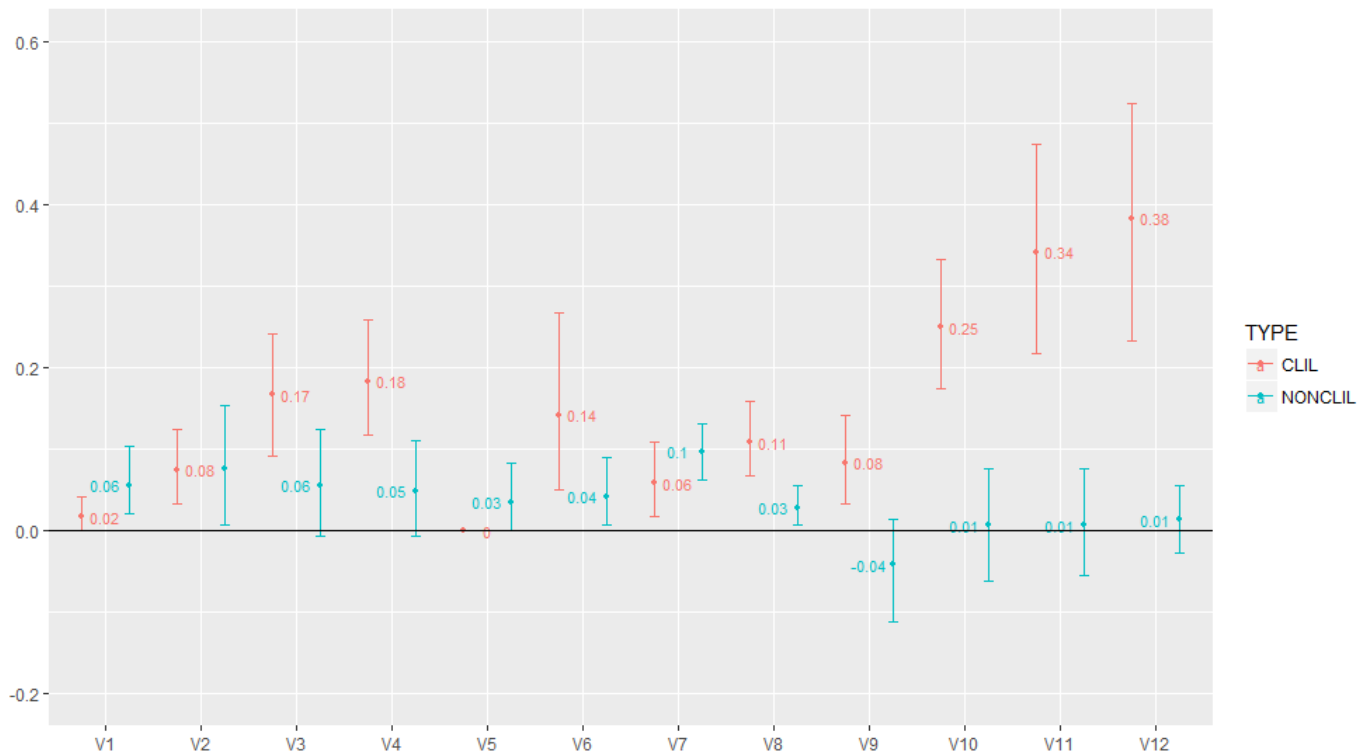


Figure 61. Estimation of IP difference in parents' attitudes

After two years, the differences in the parents' attitudes are significant. In the CLIL group, there was a significant change as shown in the index position of every variable, all of them over 0. Indexes in the non-CLIL cohort also show a change towards more favourable attitudes although the change is not as significant as the one in their counterparts' answers as some of the variables crossed the zero line in the index position. The main differences between both groups are related to items 9, 10, 11 and 12. The result of the estimation for those variables is really different in both groups as shown in the figure above, and it has to do with both cohorts' different views on CLIL as well as on their different ways of providing parental encouragement.

In order to elicit a global score for the whole sample I used a different statistical procedure. As seen above, the questionnaire was made up of 12 items, which could be assessed through a 7-category scale based on a semantic differential. The maximum score was 84 (positive attitude) and the minimum was 12 (negative attitude). In relation to the maximum possible score and with a view to standardising it, I calculated an adherence index, ranging between 0 and 1, being 1 the value that corresponded to the most favourable attitude. The adherence index was elicited through the following equation, in which  $x_i$  is the value of the  $i$ -th,  $r$  is the number of options and  $k$  is the number of items:

$$IA = \frac{1}{rK} \sum (x_i - 1)$$

The adherence index is a standardised global score of the scale and its value is 1 for every element of the scale, i.e. every parent. The calculated mean of the adherence index (see table below) showed a progressive increase over the two years in the CLIL parents' attitudes —0.6988, 0.8012 and 0.8280— whereas in the non-CLIL cohort the mean showed that there was almost no change from moment 1 to moment 2 —0.6116 to 0.6186 — and a slight change in moment 3 —0.6419—. Considering the third quartile, i.e. the value over which we find 25% of the elements of the sample, the difference between both cohorts in the three moments became apparent since the non-CLIL group showed a lower increase: from 0.7738 to 0.8452 in the CLIL group; and from 0.6815 to 0.7054 in the non-CLIL families. Considering the median, i.e. the value separating the upper half from the lower half of a dataset, 50% of the CLIL parents were above 0.8452 by the end of the programme, but the median was 0.6310 in the case of their non-CLIL counterparts. These results underpinned the statement that the values were higher in the CLIL parents cohort:

Summary: main descriptive statistical calculations of the adherence index							
		Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
CLIL	September 2012	0.4881	0.6458	0.7143	0.6988	0.7738	0.8214
	June 2013	0.6905	0.7827	0.8214	0.8012	0.8363	0.8452
	June 2014	0.7619	0.8065	0.8452	0.8280	0.8452	0.8571
NON-CLIL	September 2012	0.2976	0.5565	0.6310	0.6116	0.6815	0.7976
	June 2013	0.4524	0.5625	0.6071	0.6186	0.6815	0.7738
	June 2014	0.4405	0.6012	0.6310	0.6419	0.7054	0.8214

Table 73. Adherence index descriptive statistical calculations. Parents

The following box plot shows a summary of the values of the adherence index above for both cohorts in the three different moments:

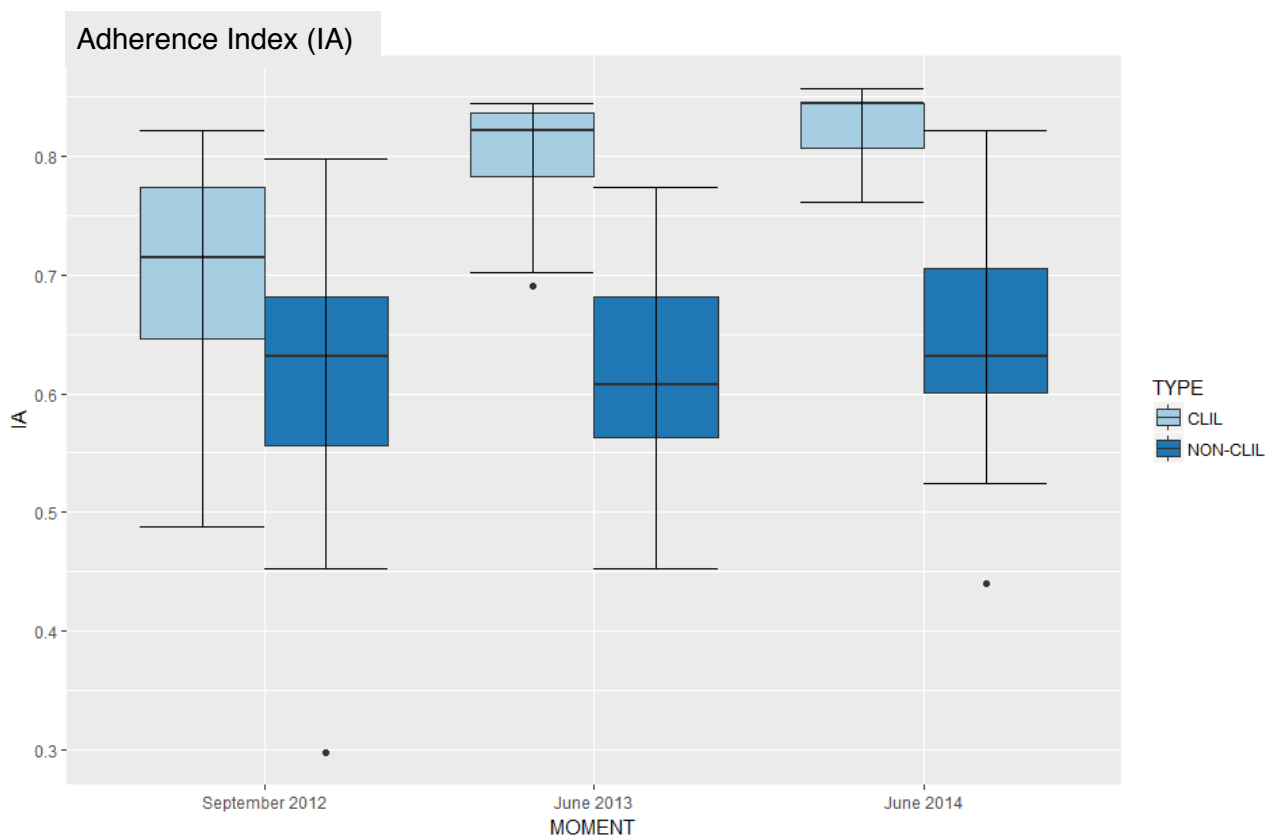


Figure 62. Adherence index representing attitudes for both cohorts in the different moments. Parents

According to the adherence index, both groups developed and sustained more positive attitudes, motivations and views on language learning over the two years of the project. Nonetheless, the parents in the CLIL cohort's results were significantly higher.

After calculating the position and adherence indices, I decided to use some statistical tests so as to determine whether the adherence index was the same in the three moments or not. Prior to making a decision about which statistical tests to use, I tested for normality through the Shapiro-Wilks test, which rejects the hypothesis of normality when the p-value is less than or equal to 0.05. The test failed normality in some of the cases and this was the reason for me resorting to a nonparametric test in order to carry out comparisons between the three measurements: the Friedman Rank Sum Test.

As regards the CLIL parents cohort, this was the result of the test: Friedman Chi-squared = 38.316,  $df = 2$ ,  $p\text{-value} = 4.784e-09$  (scientific notation used to express the p-value). The post-hoc analysis revealed significant differences between the three moments: September 2012 and June 2013 (0.00028); between September 2012 and June 2014 (0.00029); and between June 2013 and June 2014 (0.00137).

Concerning the non-CLIL cohort, this was the result of the Friedman Rank Sum test: Friedman Chi-squared = 19.279,  $df = 2$ ,  $p\text{-value} = 6.51e-05$ . In this case, the post-hoc analysis showed differences only between June 2013 and June 2014 (0.00051), and September 2012 and June 2014 (0.00329). No significant difference was found between September 2012 and June 2013 (1.000).

Summarising, differences in the adherence index in the three measurements of both cohorts were found and results seemed to indicate that progress in the development of more positive attitudes and motivations was different in both groups. The CLIL parents cohort's scores were significantly higher in every measurement and sustained in time, whereas the non-CLIL parents group's answers showed lower scores and significant change did not take place after year one, but between June 2013 and June 2014. Parents' attitudes showed a similar evolution as the ones showed by their children analysed in section 7.1.1.5.

With a view to complementing the measurement in the attitudinal/motivational test above, the parents in the CLIL cohort completed the third part of the questionnaire, which comprised some additional questions in which they were asked to give feedback on the functioning of the programme. This part of the questionnaire was only administered at the end of year one and at the end of year two. These were the questions and the sector diagrams representing their answers, which speak for themselves:

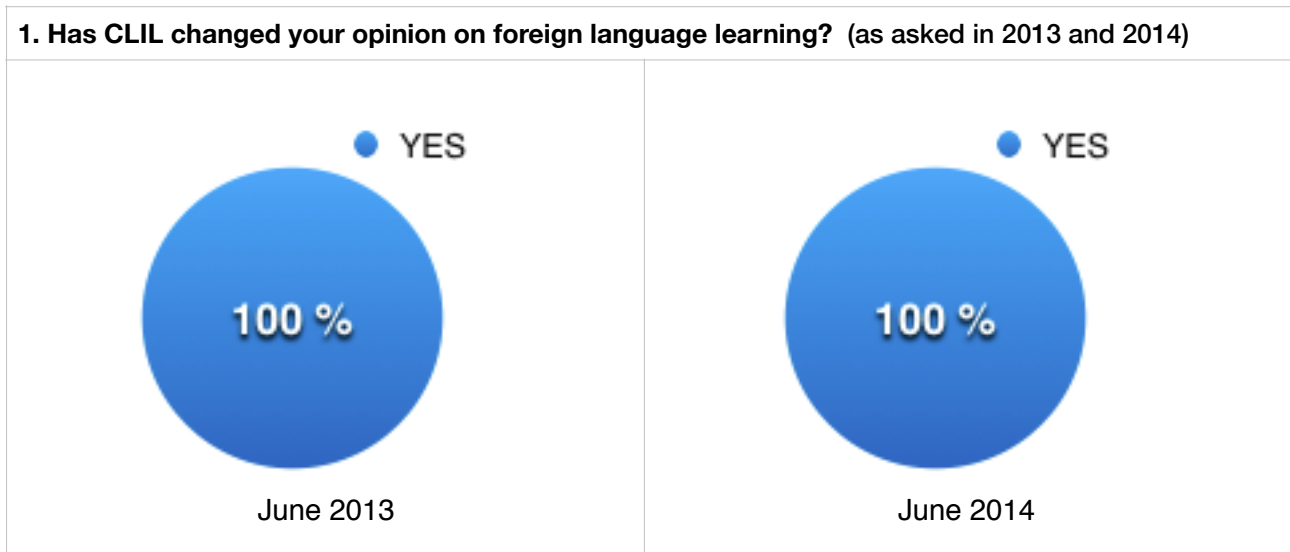


Figure 63. Question 1. Part 3. Parents' questionnaire

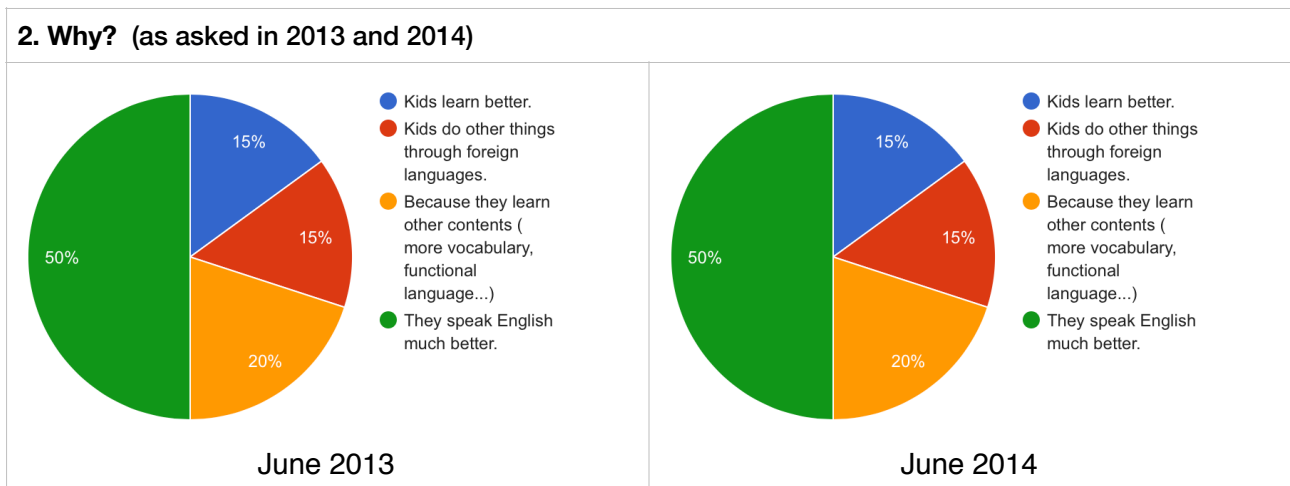


Figure 64. Question 2. Part 3. Parents' questionnaire

In both moments, the parents claimed that CLIL made them change their opinion about learning foreign languages and gave the reasons for that. The answers were identical both in 2013 and 2014.

Questions 3, 4 and 5 below show the same result. There was widespread agreement from all the parents in both moments:

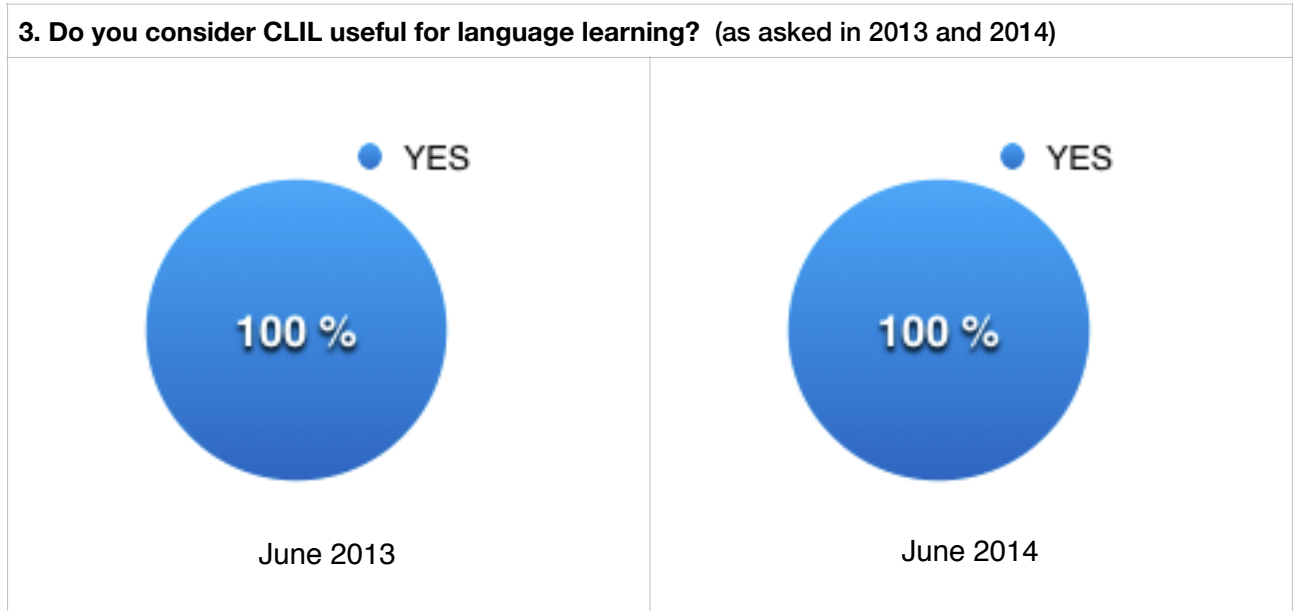


Figure 65. Question 3. Part 3. Parents' questionnaire

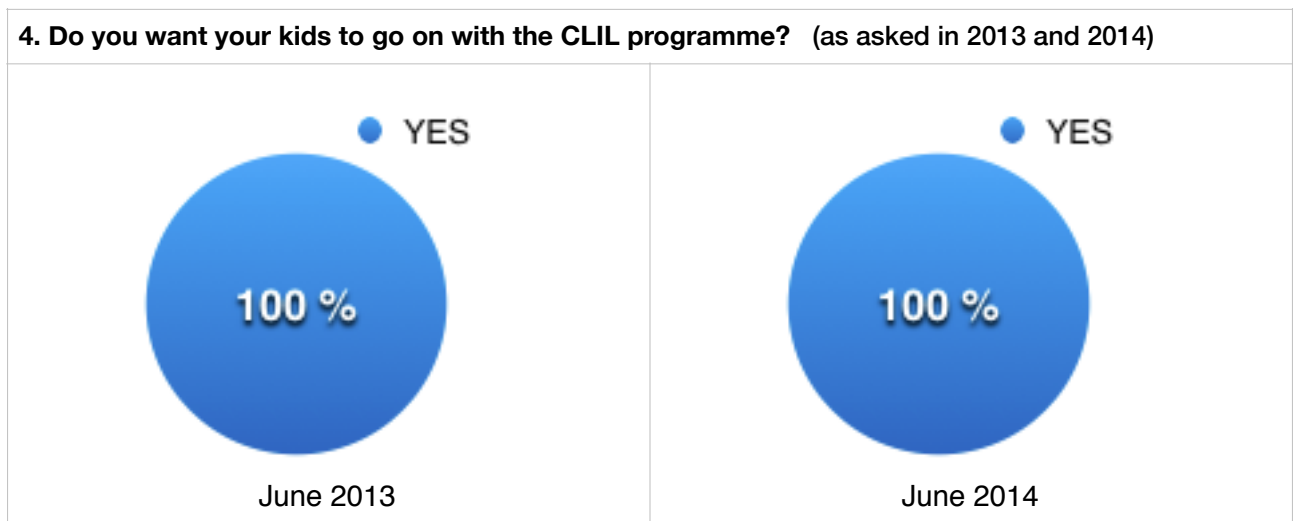


Figure 66. Question 4. Part 3. Parents' questionnaire



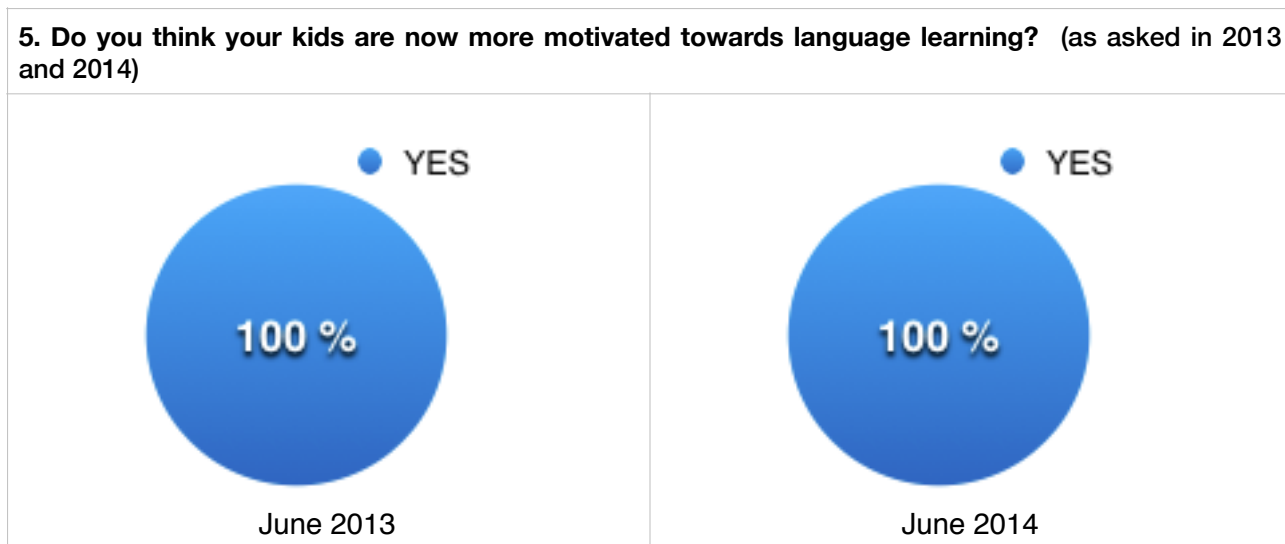


Figure 67. Question 5. Part 3. Parents' questionnaire

The parents in the CLIL cohort stated that CLIL was useful for language learning and improved their kids' motivation to learn languages. They showed their satisfaction as they all made it clear they wanted their children to go on with the CLIL programme. This is coincidental with the students' views seen in section 7.1.1.5.

### 7.1.2.2. Summary of results

According to the findings related to families, results seemed to indicate that progress in the development of more positive attitudes and motivations was different in both groups. The CLIL parents cohort's scores were significantly higher in every measurement and sustained in time, whereas the non-CLIL groups' answers showed lower scores and significant change did not take place after year one, but between June 2013 and June 2014. Parents' attitudes showed a similar evolution as the ones showed by their children analysed in section 7.1.1.5.

As regards the CLIL parents' views on CLIL shown in the third part of the questionnaire, they claimed that it was useful for language learning and improved their kids' motivation to learn languages.

### 7.1.3. Teachers

#### 7.1.3.1. Questionnaire-based opinions

This section is related to research question number 3:

#### **RQ3: What are teachers' perceptions on CLIL implementation and results?**

Complementing the measurement and analysis of students' results, their attitudes and motivations as well as those of their families with a descriptive analysis of the participating teachers' views was necessary in order to provide a general picture as well as gain a deeper insight into how CLIL implementation took place in context of this research study. As seen in section 6.5.3.3., teachers' perceptions were examined by means of two different procedures: an online questionnaire —whose answers I will analyse in this section— and an interview, whose qualitative analysis is included in section 7.2.2.1.

As seen in section 6.5.3.3., the six teachers who took part in the project completed an online questionnaire at the end of the programme, in June 2014. The questionnaire aimed to elicit their views on the CLIL programme carried out in our school and the participating students' results. This section is concerned with a descriptive analysis of the the teachers' answers. The same as in any descriptive analysis, the main goal is to provide a general idea about the variables studied. Most parts of the questionnaire (see below) have been made up of closed-ended items, which do not make the respondents produce any free writing. Instead, respondents must choose one of the given alternatives in the form of either a multiple-choice or a variation of Likert scales —strongly disagree (1), disagree (2), agree (3), quite agree (4) and strongly agree (5)—. The questionnaire consisted of the following parts:

- A) On the attainment of goals.
- B) On the degree of difficulty in curriculum development.
- C) On students' performance

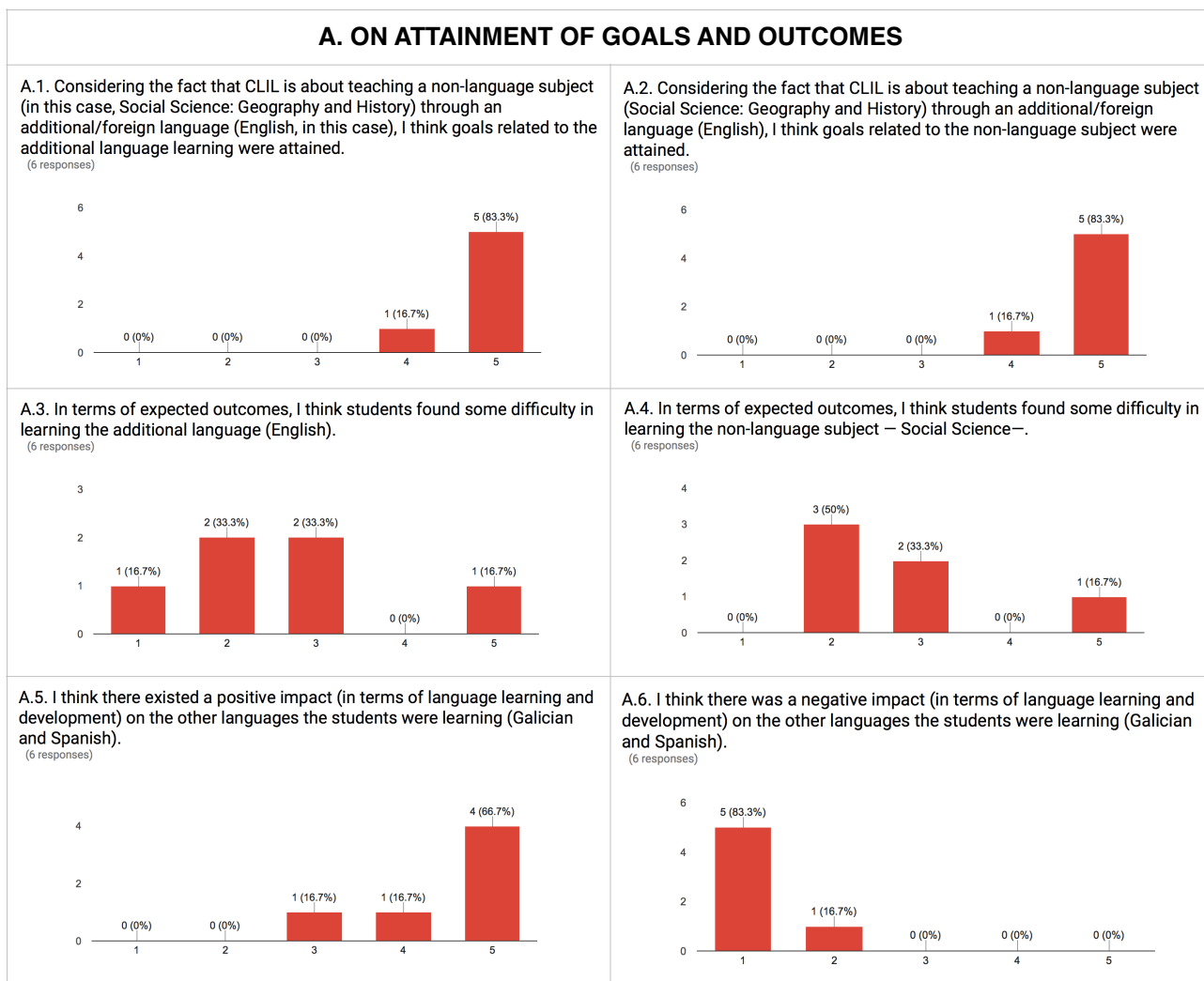


Figure 68. First part of teachers’ questionnaire

The first part of the questionnaire dealt with teachers’ opinions on the CLIL group’s attainment of goals and results. As regards items A.1 and A.2, teachers claimed that goals related to both the foreign language and Social Science were attained. This tallies with students’ measurement of results in the foreign language analysed in section 7.1.1.1., in which we concluded that CLIL students outperformed their non-CLIL counterparts. Nonetheless, teachers’ views regarding Social Science seemed too positive considering the results in Social Science, which, as analysed in section 7.1.1.4., showed a decrease in both cohorts over the two years of the programme.

Answers in items A.5 and A.6 suggested that there had been a positive impact of CLIL on the students’ learning of the other two languages —Galician and Spanish—. These views partially match the students’ results examined in sections 7.1.1.2. and 7.1.1.3. as we

concluded that CLIL students outperformed their non-CLIL peers, although the non-CLIL cohort also improved their results over the course of the two years of the project.

Conversely, with regard to items A.3 and A.4, answers were not as positive as the teachers showed mixed feelings about the difficulties the students had found in learning the foreign language and the content subject.

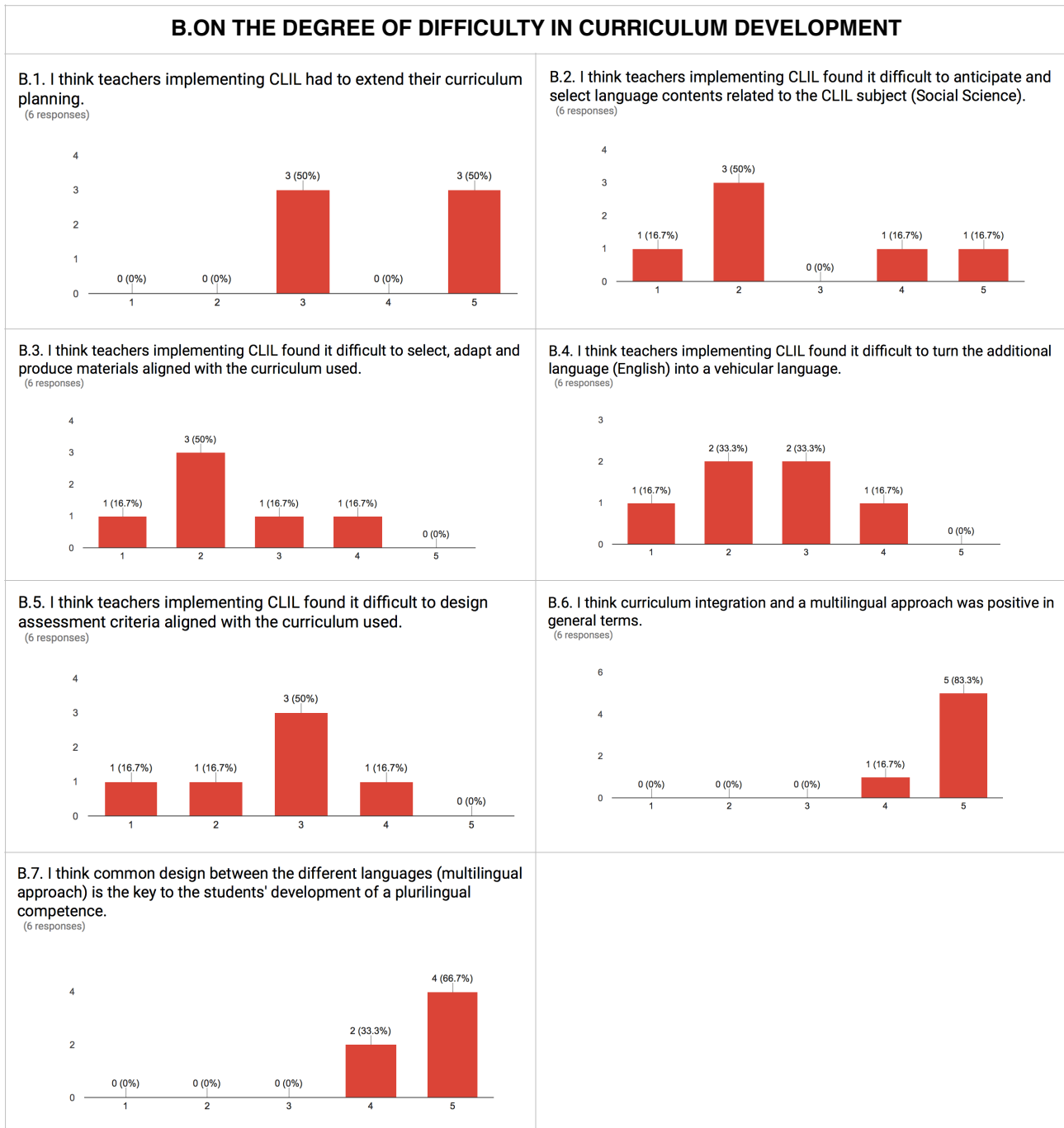
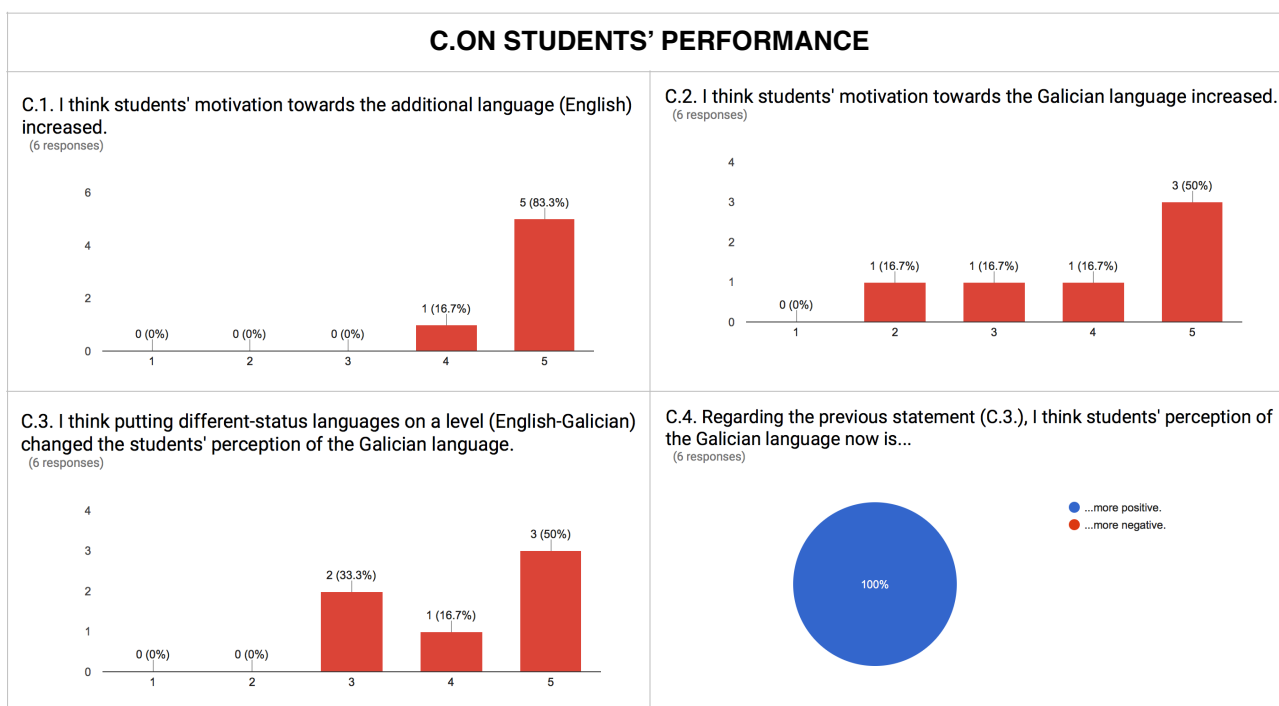


Figure 69. Second part of teachers' questionnaire

In the second part of the questionnaire, the six teachers had to assess the degree of difficulty in their development of an integrated curriculum. According to answers in item B. 1, the respondents seemed to agree on the fact that CLIL teachers had to extend their curriculum planning. Conversely, they showed mixed views about how difficult CLIL teachers had found:

- B.2. to anticipate and select language contents related to the CLIL subject;
- B.3. to select, adapt and produce materials aligned with the curriculum used;
- B.4. to turn the foreign language into a vehicular language;
- B.5. to formulate assessment criteria aligned with the curriculum used.

On the other hand, teachers seemed to agree on how positive the multilingual approach had been as well as on its key role in developing the students' plurilingual competence. These views partially match the students' results examined in sections 7.1.1.2. and 7.1.1.3. as we concluded that CLIL students outperformed their non-CLIL peers in the three languages, although the non-CLIL cohort also improved their results over the course of the two years of the project.



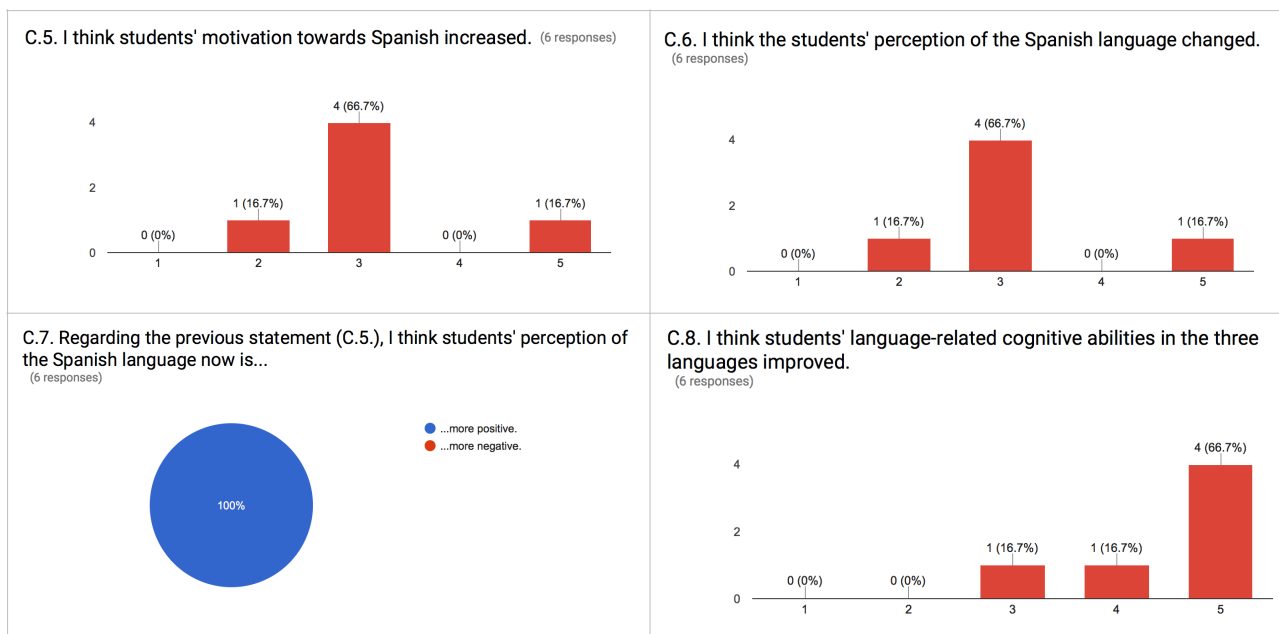


Figure 70. Third part of teachers' questionnaire 1

The third part of the questionnaire aimed to elicit teachers' views on students' performance. Answers related to items C.1 to C.7 showed what the teachers thought about students' motivation and perceptions towards the different languages. They all seemed to agree on the effects of CLIL, claiming that the multilingual approach to learning made the students develop a higher degree of motivation towards English (item C.1), Galician (item C.2) and Spanish (item C.5). Language-wise, in section 7.1.1.5. we measured their attitudes and motivation towards English. In those measurements we disregarded Galician as 95% students used Galician as a first language in every context (stated in the first part of the attitudinal/motivational questionnaire explained in section 7.1.1.5.), thus assuming that their attitudes were positive, as the ones showed by their families in the measurement explained in section 7.1.2.1. We did not focus on Spanish either as it is a majority language which, in general, sports a prestigious social status (Hermida 2001; Loureiro-Rodríguez 2007; Loureiro-Rodríguez et al. 2013; Nandi 2016a, 2016b). Nonetheless, we decided to include questions related to the three languages in this questionnaire as respondents were teachers of English, Galician, Spanish and Social Science. Interestingly, on items C.3 and C.4 teachers claimed that putting different-status languages on a level had changed their perception of Galician for the better.

Teachers seemed to agree as well on the improvement of cognitive abilities in the three languages (item C.8).

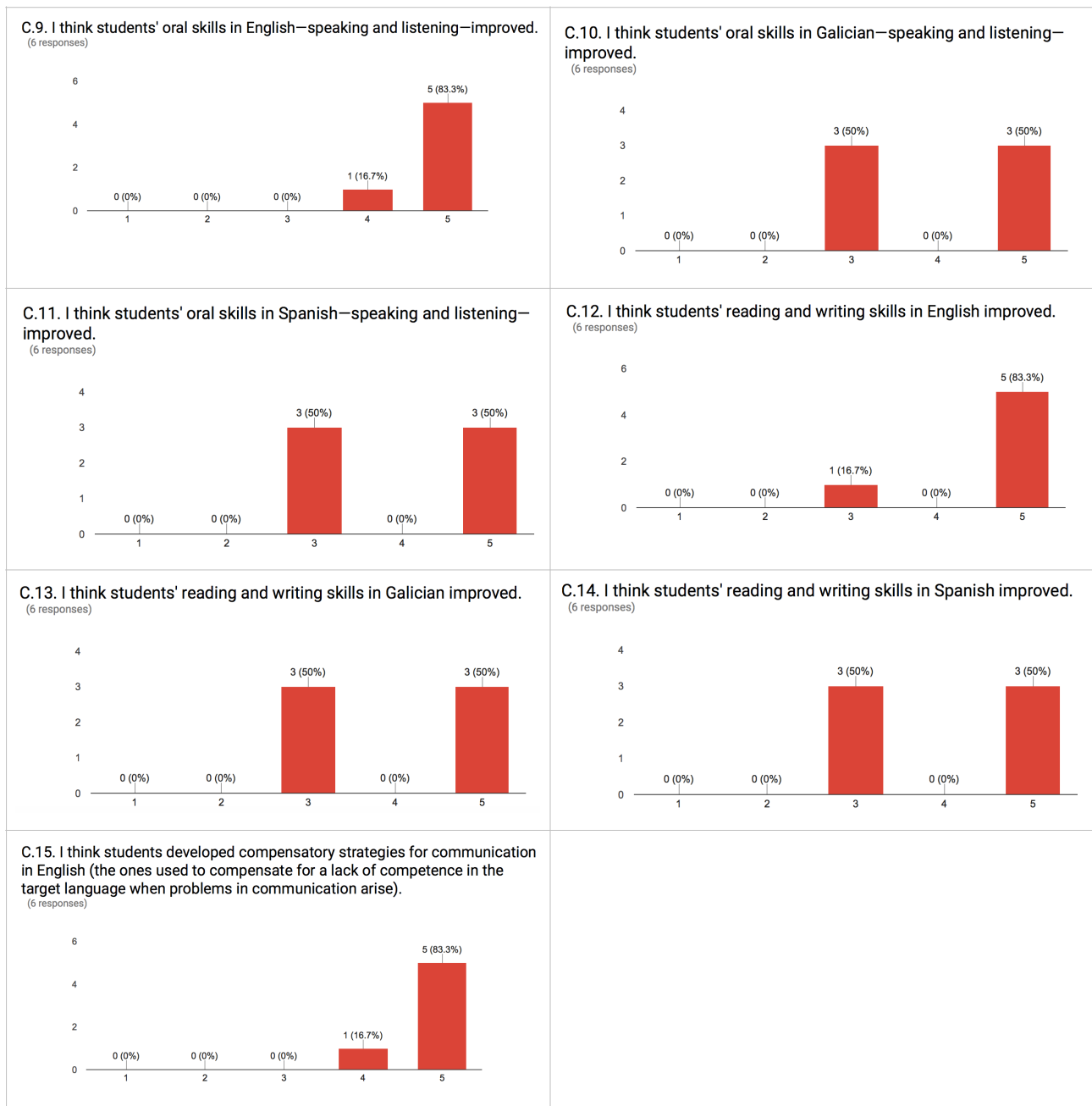


Figure 71. Third part of teachers' questionnaire 2

Opinions in items C.1 to C.15 focused on students' oral and written abilities in the three languages. Teachers seemed to agree on the general improvement in all languages, both in the oral and written communication. Teachers' views tallied with the results examined in sections 7.1.1.1., 7.1.1.2. and 7.1.1.3., although those results also showed an improvement in all languages on the part of the non-CLIL cohort.

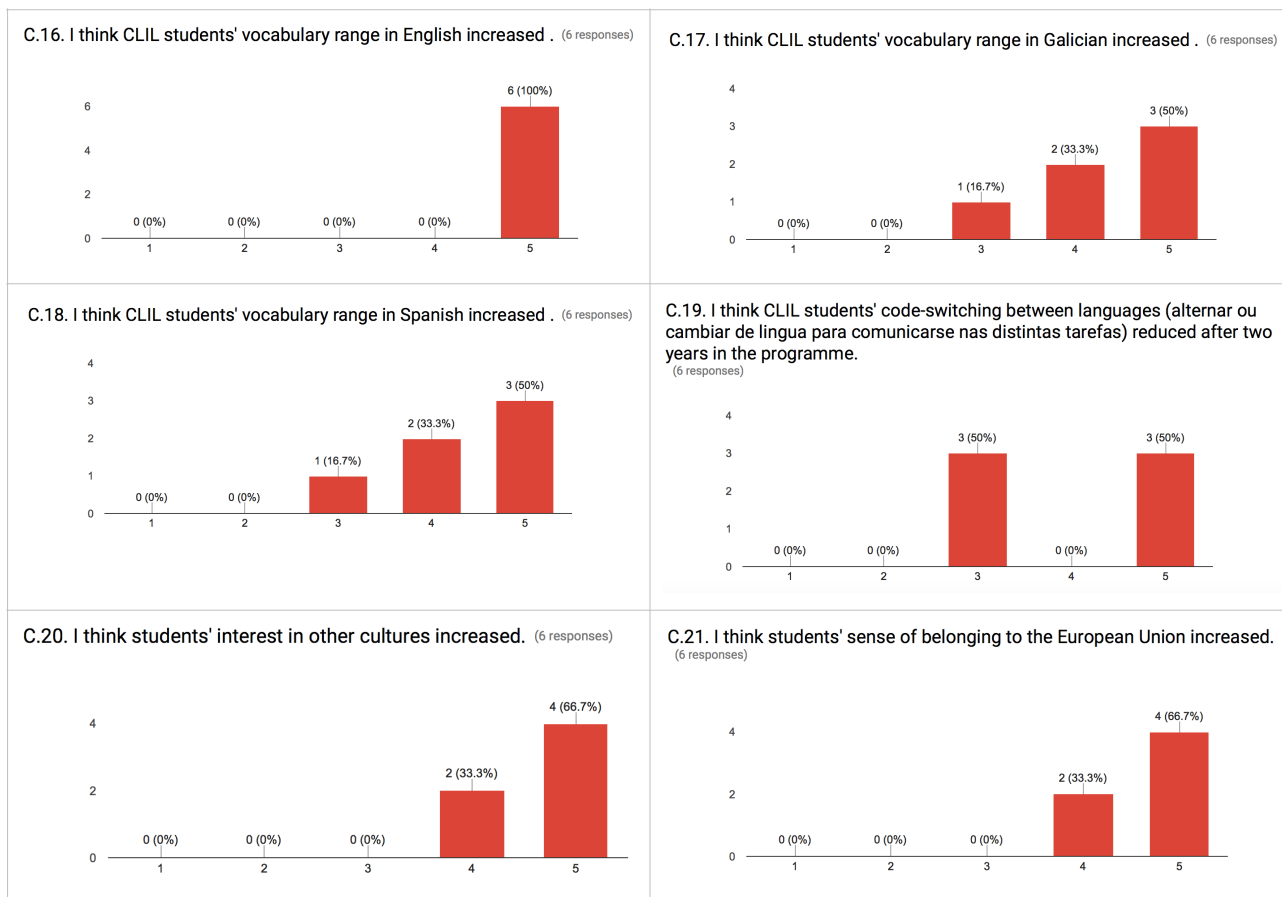


Figure 72. Third part of teachers' questionnaire 3

As regards items C.16, C.17 and C.18 teachers' views showed that CLIL students' range of vocabulary increased in the three languages over the two years of implementation. Interestingly, their answers to item C.19 showed that students' code-switching to L1 when using the foreign language (explained in section 2.3.4.2.) reduced after two years. Teachers' views partially matched the results of the analysis of the students' code-switching in section 7.2.1.

As to items C.20 and C.21, teachers seemed to agree on the students' increase of attitudinal integrativeness, analysed in section 7.1.1.5. These views were coincidental with the measurement of students' integrative attitudes in the above-mentioned section.



### **7.1.3.2. Summary of results**

According to teachers' opinions, CLIL seemed to provide a very good framework for students' language learning on a multilingual basis as it made a positive impact on the three languages and on their attitudes, motivations and perceptions of those languages. These views tallied with CLIL students' results. Nonetheless, according to the results, the impact was also positive on the non-CLIL cohort (see sections 7.1.1.1., 7.1.1.2., 7.1.1.3. and 7.1.1.5.)

As regards content-learning, teachers' positive views did not match the empirical evidence elicited from the measurement of the students' knowledge in Social Science (see section 7.1.1.4.), which showed no significant change in the CLIL group over the two years.

In section 7.2.2.1. I will analyse teachers' opinions from a different perspective: an interview-based qualitative analysis of their views on CLIL implementation.

## 7.2. Qualitative Analysis: Tasks and Interviews

This section will deal with the qualitative analysis of:

1) Data related to students' oral code-switching elicited from monitoring four integrated tasks between 2012 and 2014 (see section 6.5.). This analysis is related to research questions RQ8 and RQ9 (see section 6.3.).

2) Teachers' views on CLIL implementation through the interviews described in section 6.5. This analysis is related to research questions RQ3 (see section 6.3.).

### 7.2.1. Students

In this section I will analyse the data related to the research questions number 8 and 9:

**RQ8: When does code-switching in CLIL students' talk occur and what is its role?**

**RQ9: Are there any significant differences between CLIL and non-CLIL students as regards code-switching?**

As seen in chapter 2 (section 2.1.2.), research seems to support the view that bilingualism positively influences mechanisms of cognition in terms of mental flexibility, executive control and creativity, on the grounds of the bilinguals' metalinguistic ability and their capacity for code-switching. This was something really relevant for our study. The students that took part in our research were bilingual (Spanish-Galician) and the methodology used required the use of different learning skills, problem-solving, understanding of things from different cultural perspectives and development of higher order thinking skills. The class dynamics used set the suitable context for code-switching to take place. As seen in section 4.5., Levine (2011: 33) suggested that foreign language learners should be helped to develop an awareness of when and why to code-switch, since code-switching is a normal

creative aspect in a bilingual classroom. Levine (2011: 7) underlined the fact that the classroom is part of the *'real world'* since it contributes to an individual learner's maintenance of his/her own sense of identity and cultural belonging through the use of L1. Therefore, he concludes that code-switching offers an authentic communication resource in the school social interaction arena.

In order to analyse code-switching, we selected 5 pairs of students, each pair being made up of one CLIL and one non-CLIL students. Selection and pair-matching took place not only after the initial placement tests in English and the previous-knowledge test in Social Science, but also after we measured English competence in both cohorts in September 2012 (see sections 6.5.1. and 6.6.1.). When addressing the analysis of student-pairs below, this will be more fully explained.

#### **7.2.1.1. Code-switching in Tasks**

This section intends to uncover some of the reasons and functions of code-switching from the transcription and analysis of selected extracts of students' language use in four different tasks. Students' interactions and their voices revealed that code-switching is a strategy that learners usually resort to, intentionally or unconsciously, to achieve their communicative objectives.

As explained in section 6.5.2., tasks were specifically designed to elicit results in relation to focal area 3, goal 4 and research questions RQ8 and RQ9 (see sections 6.3. and 6.5.). Students' oral performance was monitored and filmed in four different moments over the two years with the sample of students mentioned above and explained in section 6.4.1. Four tasks were used (see Appendix B), all of them language and content focused: tasks 1 and 3 were monologic whereas tasks 2 and 4 were dialogic. Every couple was filmed separately and the procedure used for all of them was as follows:

- 1) The teacher explained the task, based on oral performance.

2) The pairs were given visual support (through the interactive white-board) with information, some vocabulary and some tips. The contents and language in the tasks had previously been worked upon in the English class with all students.

3) The students had 10 minutes to prepare their oral presentation, which was performed either individually (tasks 1 and 3) or in pairs (simulation-based dialogues in tasks 2 and 4). Preparation was pair-based in the four tasks —not only in the dialogues— so that students could help one another.

4) Then the students orally performed the task during 5 minutes while being filmed by the teacher.

Film footage was transcribed and code-switches were then coded using the software Atlas.ti. The filming, a total of 150 minutes, revealed that CLIL students code-switched 347 times while the non-CLIL students did so 361 times. The process of classifying and coding switches revealed their different functions, grouped into the following categories:

#### 1) EQUIVALENCE

According to Sert (2005) and Eldridge (1996), this function of code-switching is related to the students making use of the native equivalent of a certain lexical item in the target language. This function is really important in CLIL as the acquisition of specialised vocabulary and academic language is instrumental in content learning. Equivalence-based code-switching might be related to lexicon-related deficiencies in the target language.

#### 2) REITERATION

According to Eldridge (1996: 306), the function of code-switching is reiteration when *'messages are reinforced, emphasised, or clarified where the message has already been transmitted in one code, but not understood'*.

### 3) MONITOR

The monitor function is related to the mechanism controlling speech errors (Krashen 1981; Selinkier & Gass 2001). In our analysis we considered postarticulatory editing or self-monitoring (Riehl 2005), which occurs when the speakers become aware that they have used the wrong expression and then correct or ask for help.

### 4) SIDE COMMENTS

According to Auer (1998), students can code-switch when making parenthetical comments.

### 5) ALIGNMENT

This function is related to switches occurring when speakers intend to mark rights or roles of speakers (Kootstra 2012). They take place in dialogic communicative situations.

### 6) INTERSENTENTIAL

According to Brice and Brice (2000), intersentential code-switching occurs when speakers interject an entire sentence or phrase from L1 into the target language.

The six categories above were coded as [EQUIV], [REIT], [MON], [SIDE], [ALIGN] and [INTER] plus the type of student —[CLIL] or [NONCLIL]—, the task number [T1], [T2], [T3] and [T4], followed by the number of occurrence. For instance: [MONCLILT1001].

The following tables sum up the number of occurrences of code-switching to L1 —mostly Galician— in the four tasks:

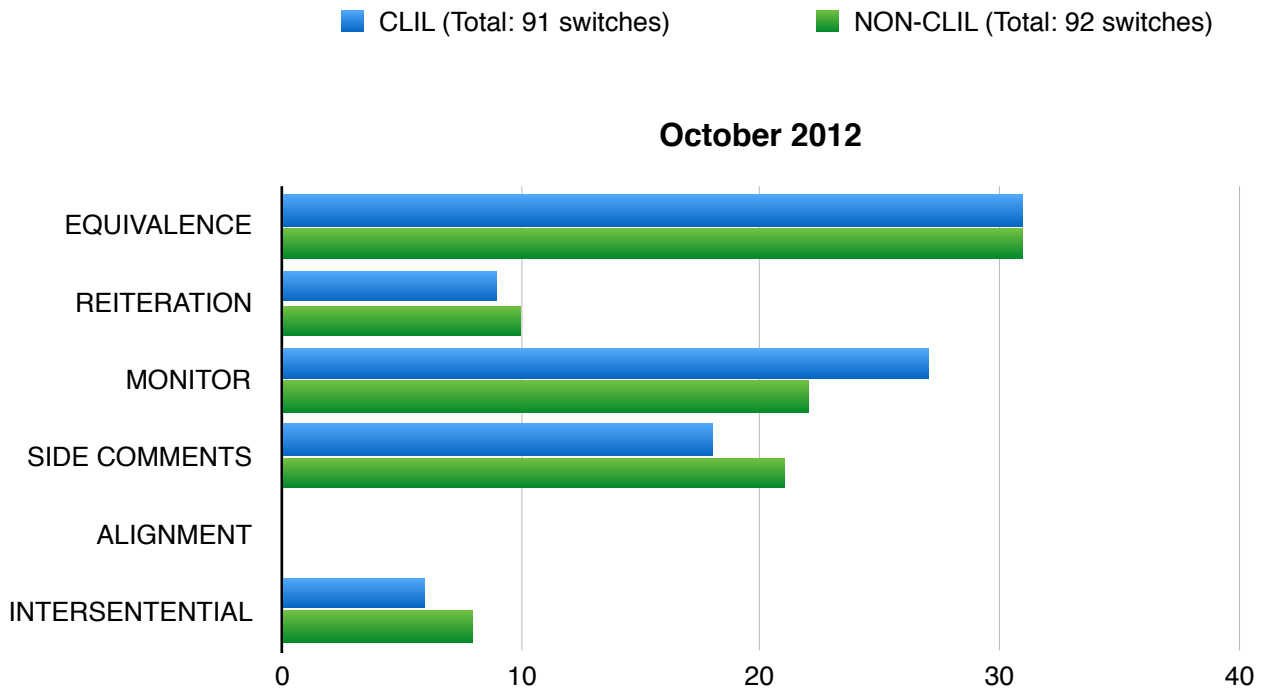


Figure 73. Code-switches in task 1

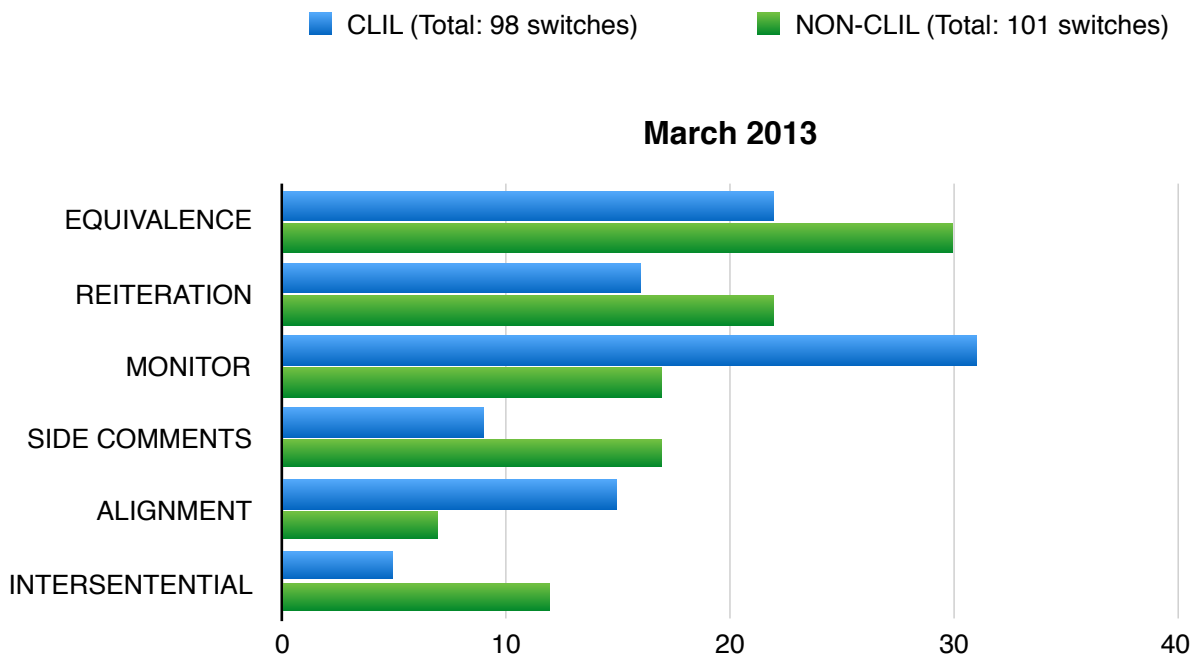


Figure 74. Code-switches in task 2

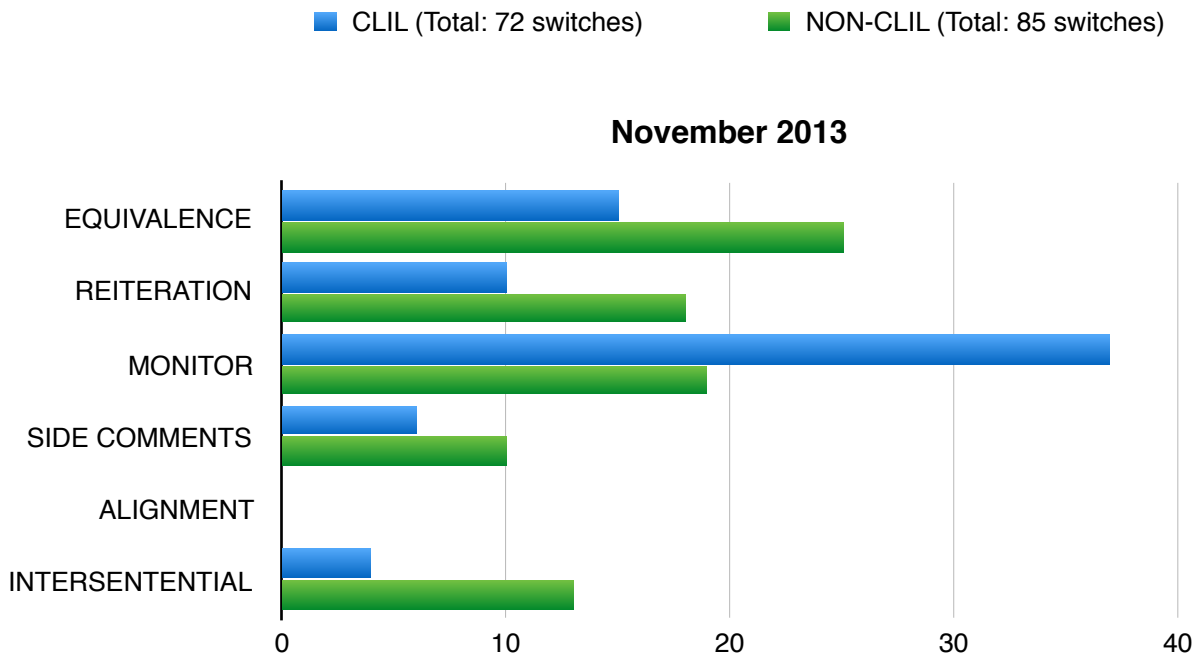


Figure 75. Code-switches in task 3

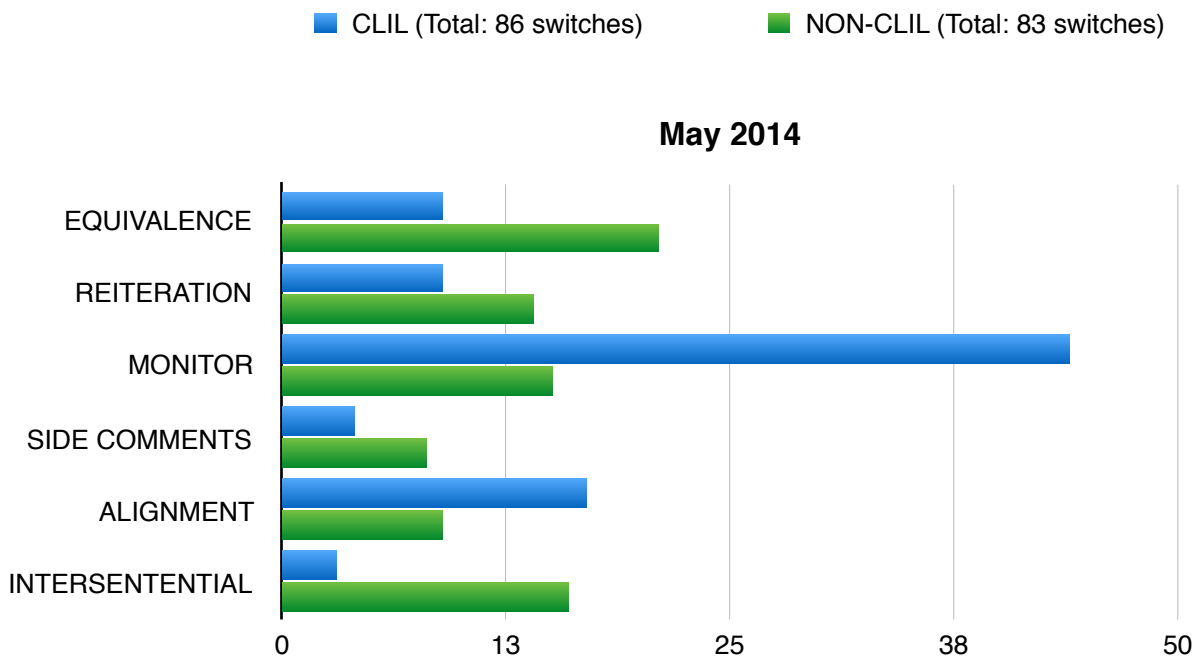


Figure 76. Code-switches in task 4

Although the number of switches reveals that both types of students seemed to resort to code-switching in a similar way, the CLIL students reduced their switches by the end of the programme except in two of the categories seen above. The different categories of occurrences show two different behaviour patterns in CLIL students' use of code-switching: they seemed to resort to monitor code-switching to a greater extent than non-CLIL students; and they also code-switched more in order to mark roles —alignment in dialogic tasks—.

I will now provide a description of the behaviour of each pair regarding code-switching in every category in the four different moments.

### Pair 1

It was formed by subject CLIL 13 and subject non-CLIL 3. Their initial matching was due to their high results in the previous content knowledge test and a similar command of English, considering their similar results in the placement tests and the first English measurement. The CLIL student showed a smaller number of equivalence-related switches in the course of time:

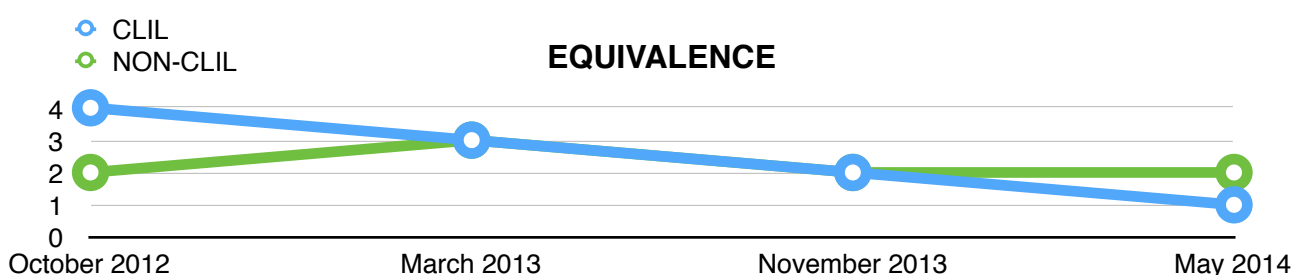


Figure 77. Equivalence code-switches in pair 1

#### Excerpt 1

Firstly, on the right you can see a car and a *moto acuática* [EQUIVNONCLILT1002], which is a common thing in our beaches.

Both students code-switched when emphasising, reinforcing or clarifying. The following graph shows their reiteration-based code-switching:



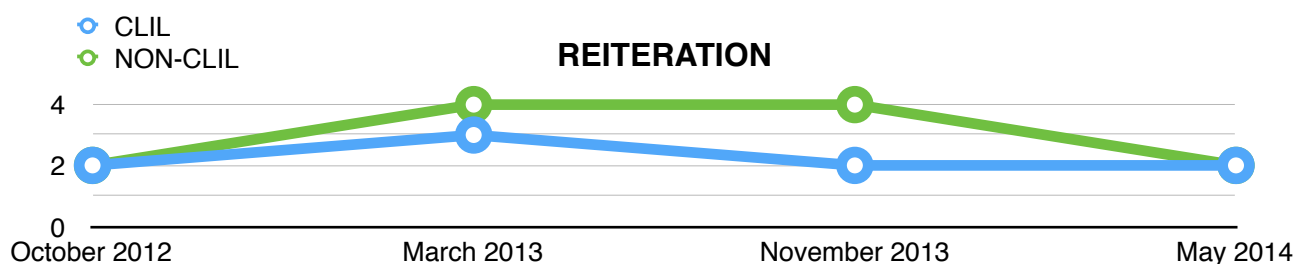


Figure 78. Reiteration code-switches in pair 1

**Excerpt 2**

CLIL student: What do you think about natural disasters?

Non-CLIL student: They are really dangerous and happen all over the world. Volcanoes, earthquakes [...]

CLIL student: Earthquakes?

Non-CLIL student: Earthquakes, earthquakes....*os terremotos de toda a vida*. [REITNONCLILT2001]

CLIL student: *Sigue... que estabas falando* you. You were giving examples of natural disasters...natural disasters, *entendes?* [REITCLILT2001]

Non-CLIL student: OK...well

As regards monitor code-switching, the CLIL student seemed to code-switch to a greater extent, whereas the non-CLIL counterpart's use of monitoring decreased in the course of time. This tallies with the general numbers shown in the tables above. CLIL students may be more aware of or more focused on their own mistakes in the foreign language. This might be related to their development of CALP (see section 3.4.) in the CLIL environment.

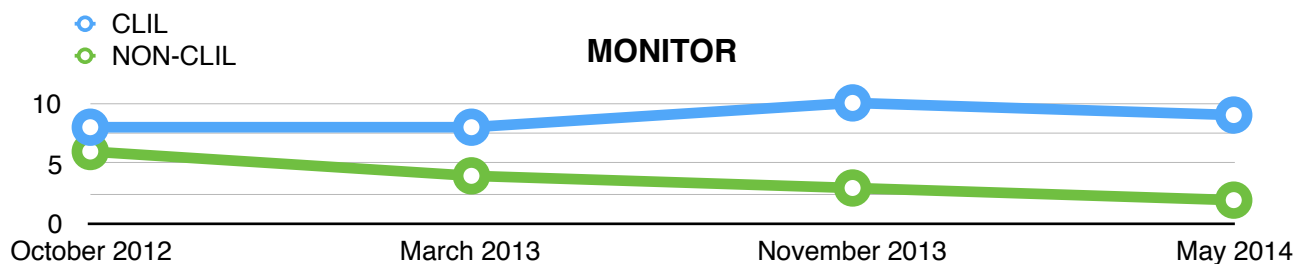


Figure 79. Monitor code-switches in pair 1

**Excerpt 3**

First of all, I would like to present my Google Map and I would also like to compare it with traditional maps...cartogra...? cartography?... *é esa a palabra profe?* [MONCLILT3001].

As regards parenthetical or side comments both students reduced them over the two years:

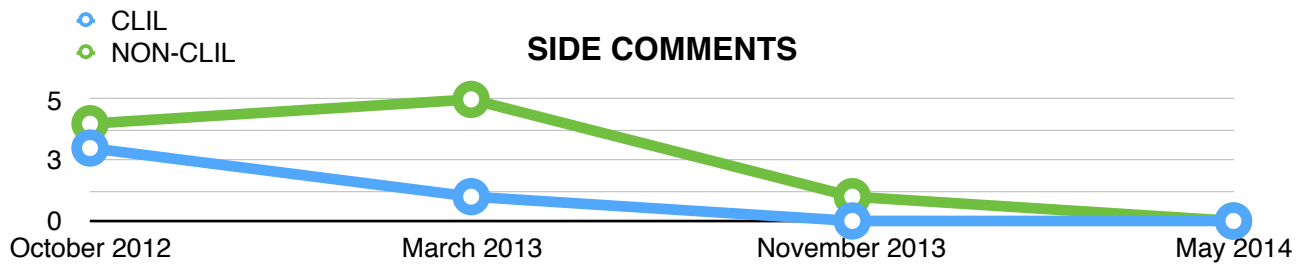


Figure 80. Side comments code-switches in pair 1

**Excerpt 4**

CLIL student: Have you seen any of them on the news recently?

Non-CLIL student: Yesterday night there was something on the news...*Xa che vale!* [SIDENONCLILT2003]

CLIL student: Was it interesting? *Xa che vale a ti!* [SIDECLILT2003]

With regard to alignment, i.e. code-switches related to marking rights or roles of speakers, it was present only in the dialogic tasks (March 2013 and May 2014). According to the number of occurrences, the CLIL student's use of it was slightly above the non-CLIL counterpart's.

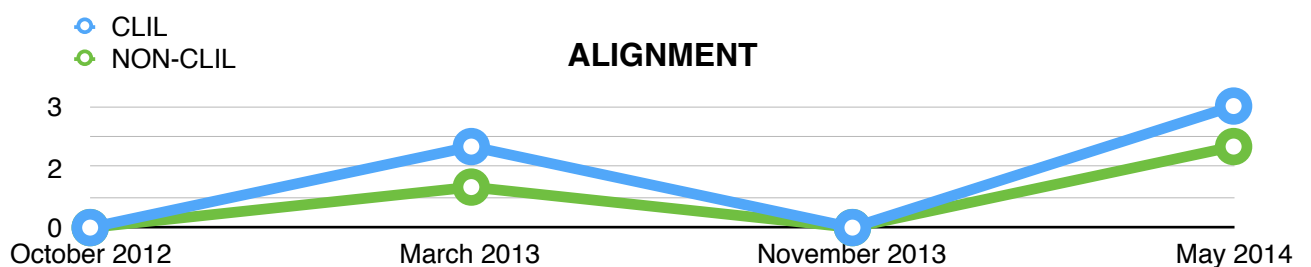


Figure 81. Alignment code-switches in pair 1

**Excerpt 5**

CLIL student: *Sigue... que estabas falando you* [ALIGNCLILT2005].

The non-CLIL student seemed to use intersentential code-switching to a greater extent:

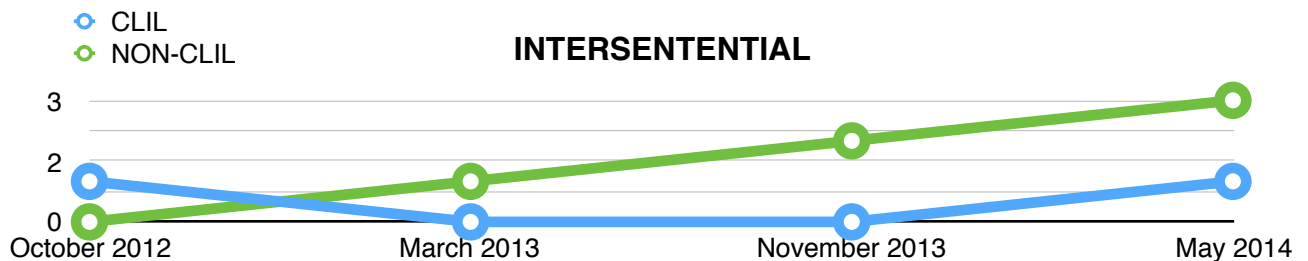


Figure 82. Intersentential code-switches in pair 1

**Excerpt 6**

The route was identical to the one of the coffee. I used the countries in the labels.  
*Despois deseñei o mapa.* [INTERNONCLILT3006].

**Pair 2**

It was formed by subject CLIL 5 and subject non-CLIL 2. They were initially matched on the grounds of their initial results in English and Social Science, which neither of them had passed. The following graph shows a decrease in the number of equivalence-related switches in the course of time for both students:

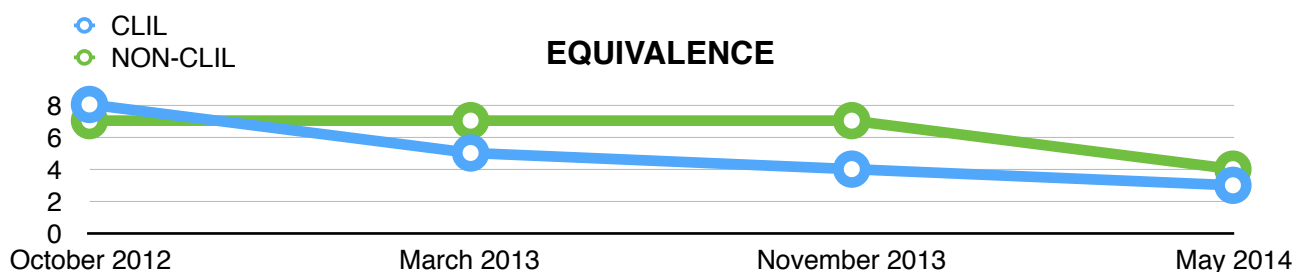


Figure 83. Equivalence code-switches in pair 2

**Excerpt 7**

I \*use a lot \*elements in the glog. Colours are very *bonitos* [EQUIVNONCLILT1008].

**Excerpt 8**

You can see many things in my glog: *medios* of transport, videos, pictures, etc [EQUIVCLILT1005].

As regards reiteration, the graph shows that both students resorted to code-switching in a similar way. A slight increase in task 2, which progressively decreased in the course of time.

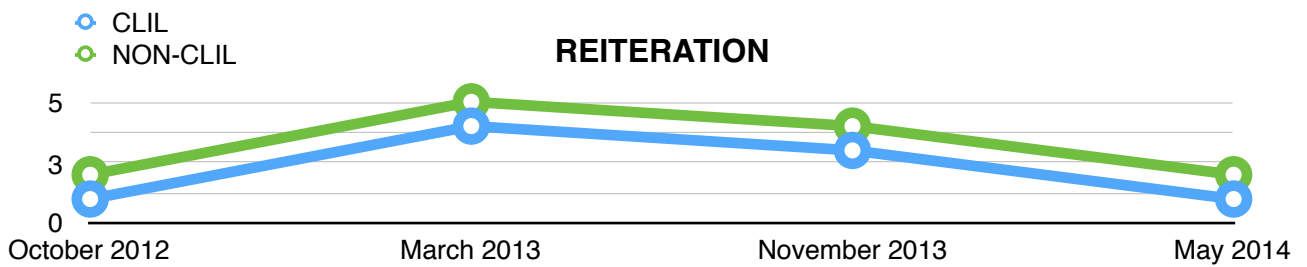


Figure 84. Reiteration code-switches in pair 2

**Excerpt 9**

CLIL student: In Japan there \*is a tsunami last year

Non-CLIL student: What?

CLIL student: A tsunami, *unha onda xigante...*[REITCLILT2008] parecees parvo!

Non-CLIL student: *Morro da risa meu!* The tsunami kill many persons, moitas moitas [REITNONCLILT2009]

As to monitor code-switching, the same as with the previous pair of students, the CLIL student seemed to code-switch to a greater extent. The development of CALP (see section 3.4.) might be the reason for CLIL students to be more prone to self-editing:

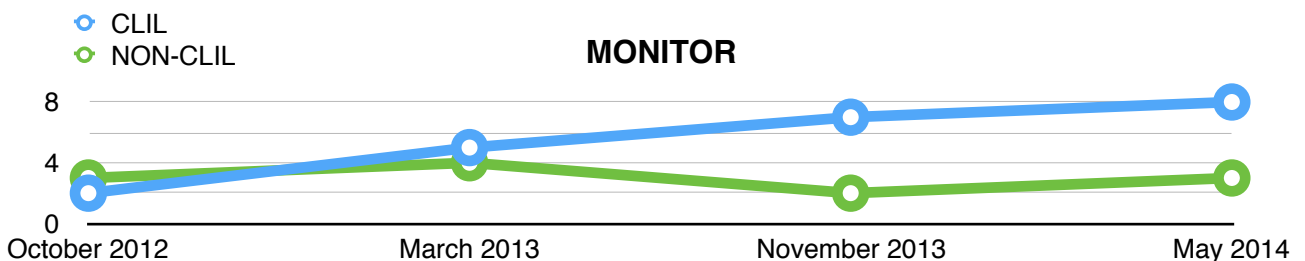


Figure 85. Monitor code-switches in pair 2

**Excerpt 10**

I looked for countries \*producers of fruit and nuts to export because I \*want to put in my map. When I \*draw with the Google app, geography...geographic...*dise así, non?* [MONCLILT3012].

As regards side comments the number of times the CLIL student code-switched decreased by the end of the programme:

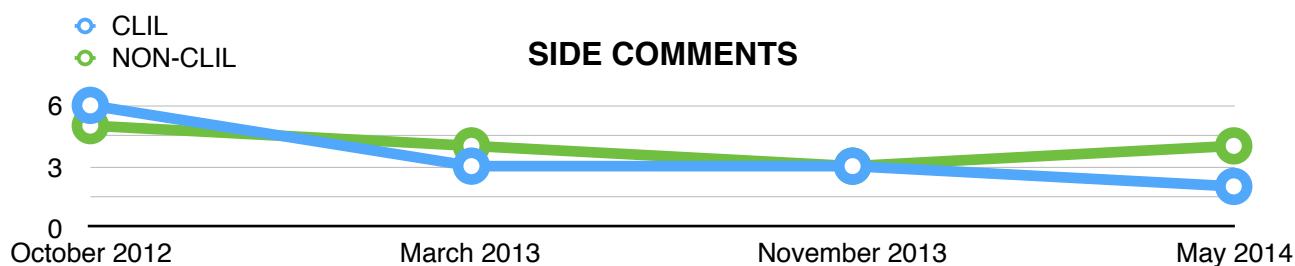


Figure 86. Side comments code-switches in pair 2

**Excerpt 11**

CLIL student: A tsunami, [...] parece parvo! [SIDECLILT2006]

Non-CLIL student: *Morro da risa meu!* [SIDENONCLILT2006] The tsunami [...]

The number of code-switches related to marking rights or roles of speakers was identical in the final task for both students:

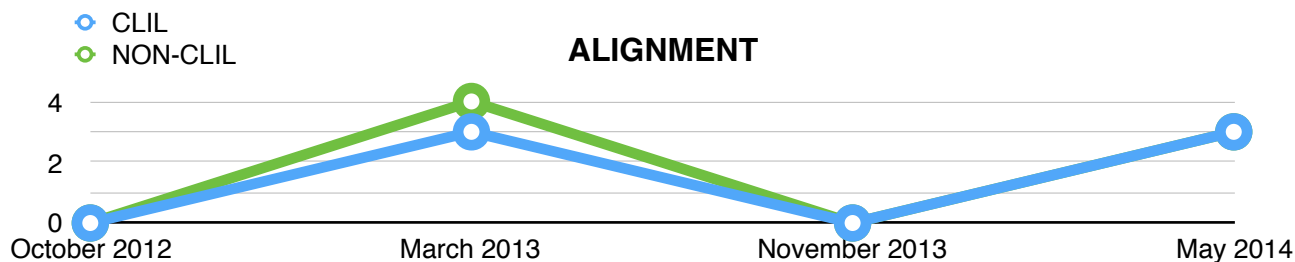


Figure 87. Alignment code-switches in pair 2

**Excerpt 12**

CLIL student: *Tócache a ti!* You will speak now. [ALIGNCLILT4003]

Non-CLIL student: *A min non!* vas ti! I am, I ...What? [ALIGNNONCLILT4003]

Both students seemed to make use of intersentential code-switching over the two years:

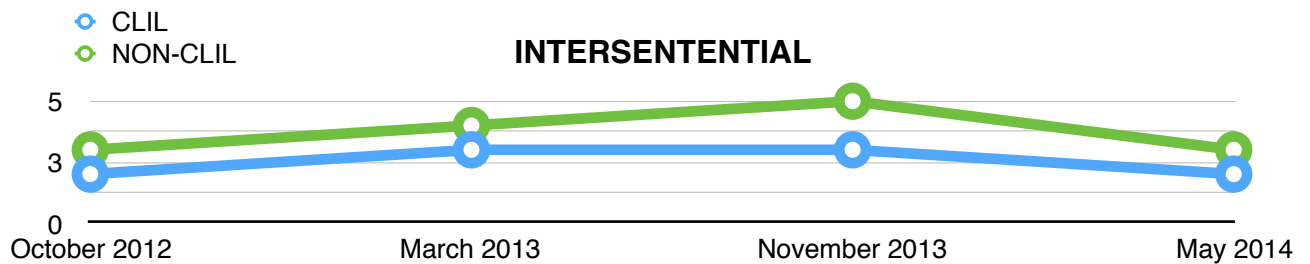


Figure 88. Intersentential code-switches in pair 2

### Excerpt 13

*Para empezar a usalo fixen isto. First, I \*watch \*video. Then, \*read \*much things [INTERNONCLILT3007].*

### Pair 3

It was formed by subject CLIL 17 and subject non-CLIL 15. They were matched taking into consideration their excellent results in all tests —English and Social Science—.

As regards both students' code-switching in the six categories, the following charts show the results in the different tasks. Regarding equivalence, the non-CLIL student seemed to code-switch more times by the end of the programme, while the CLIL counterpart showed a slight decrease:

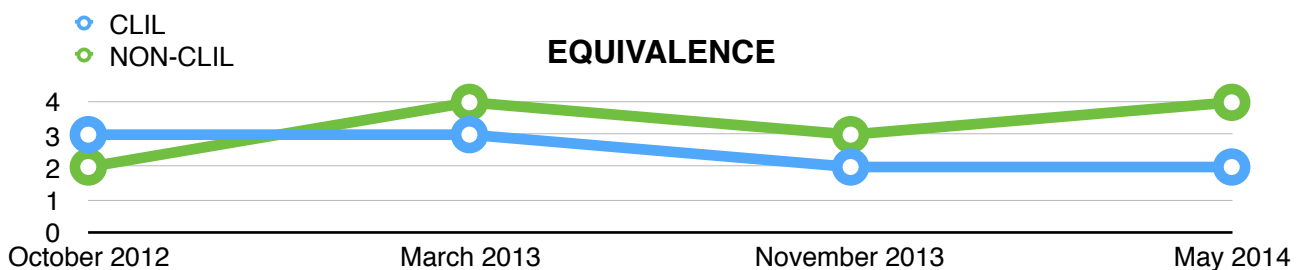


Figure 89. Equivalence code-switches in pair 3

### Excerpt 14

Wars were really the main problem for humankind at the time and the use of *bombas...* [EQUIVNONCLILT4007].

**Excerpt 15**

The world got crazy and wars happened, and even the *holocausto*...  
 [EQUIVCLILT4007].

The following graph shows that both students resorted to reiteration code-switching in a similar way, although the non-CLIL student’s use of it was slightly higher:

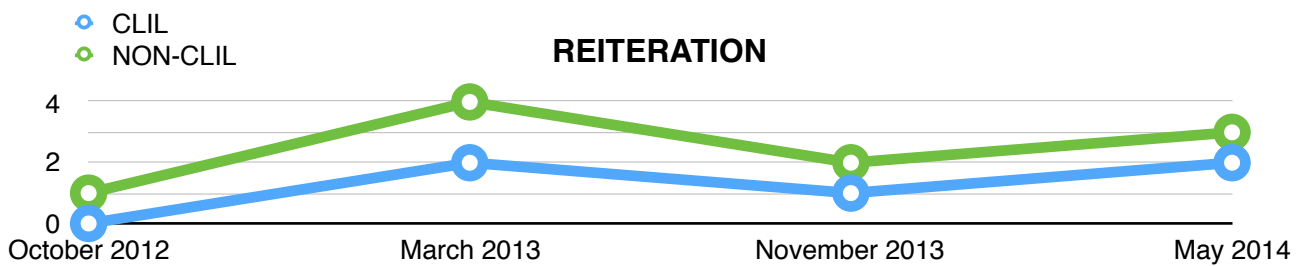


Figure 90. Reiteration code-switches in pair 3

**Excerpt 16**

CLIL student: What were the reasons for the holocaust?

Non-CLIL student: The holocaust?

CLIL student: Yes, the reasons, the causes...*as razones* [REITCLILT4009].  
*Despertarás hoxe?*

Non-CLIL student: Well...Hitler was a criminal, *un asesino* [REITNONCLILT4009].

The same as with the previous pairs of students, as regards monitoring or self-editing the CLIL student seemed to code-switch to a greater extent:

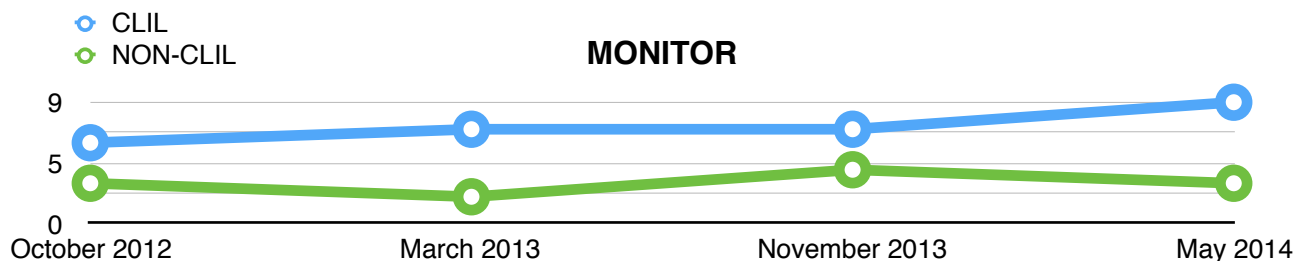


Figure 91. Monitor code-switches in pair 3

**Excerpt 17**

I would like to introduce my presentation by mentioning a few elements that allowed me to cont...contrast...*contrastar*? [MONCLILT3015] the different routes from South America to Galicia.

As regards side comments the number of times both students code-switched hardly varied from moment one to moment four. Although both students' use of code-switching converged in task 2, the non-CLIL student's number of switches was slightly above the CLIL counterpart's:

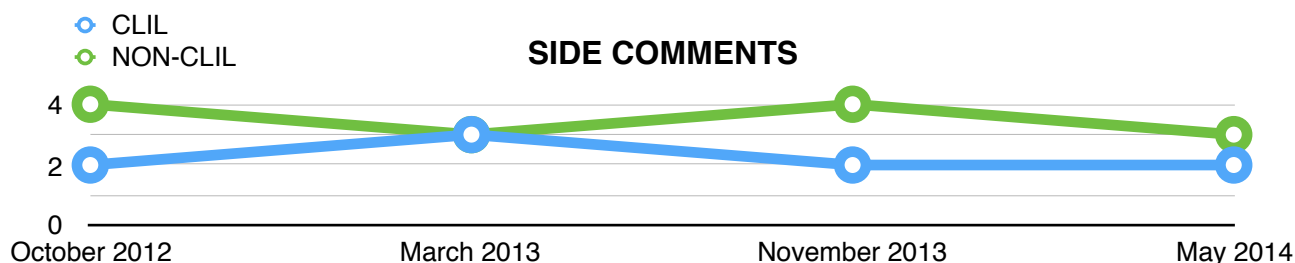


Figure 92. Side comments code-switches in pair 3

**Excerpt 18**

CLIL student: Yes, [...] *Despertarás hoxe?* [SIDECLILT4010]

Non-CLIL student: Well...Hitler was [...] *Xa estou desperto listo!* [SIDENONCLILT4010]

The number of code-switches related to alignment of roles was higher in the case of the CLIL student in both dialogic tasks:

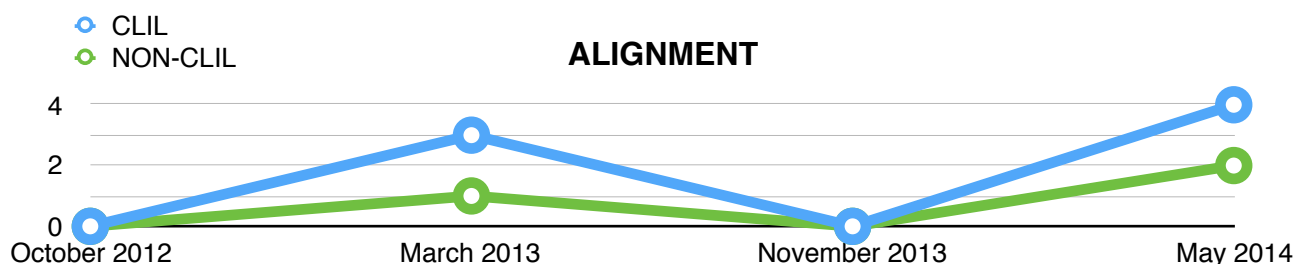


Figure 93. Alignment code-switches in pair 3



**Excerpt 19**

CLIL student: *Falas ti primeiro meu, ok?* [ALIGNCLILT4004]

Non-CLIL student: OK! Well, my question is about your opinion about the war.

CLIL student: What is the question?

Non-CLIL student: *Your opinion, I said...Eu xa falei, así que empeza...*

[ALIGNNONCLILT4004]

While the CLIL student did not code-switch on an intersentential basis a single time over the two years in the four tasks analysed, the graph shows a progressively higher use of non-intersentential code-switching on the part of the non-CLIL student:

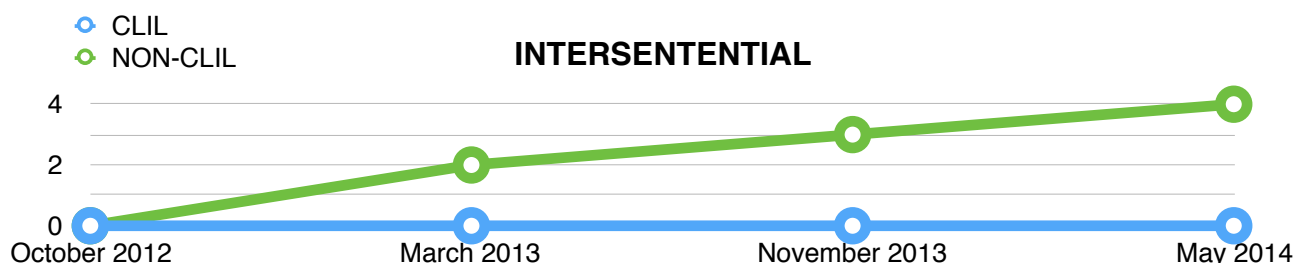


Figure 94. Intersentential code-switches in pair 3

**Excerpt 20**

A lot of trouble was caused by Nazism. It caused a big war around the world. *E isto non o podemos esquecer* [INTERNONCLILT4008].

**Pair 4**

It was formed by subject CLIL 6 and subject non-CLIL 6. The same as pair 2, they were initially matched considering their initial results in English and Social Science, which neither of them had passed. The following graph shows a decrease in the number of equivalence-related switches in the course of time for both students:

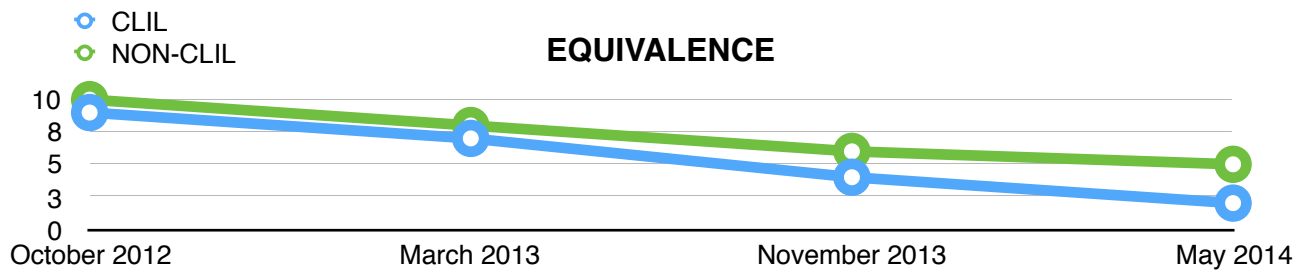


Figure 95. Equivalence code-switches in pair 4

**Excerpt 21**

My glog \*be amazing. Many things and videos, apps, photos, *canciones de mi grupo*, because I like \*very much. [EQUIVNONCLILT1011].

**Excerpt 22**

I like \*transports in the glog: bicycle, car, plane, *un velero*, trains...  
[EQUIVCLILT1011].

As regards reiteration, the following graph shows that both students resorted to code-switching in a similar way. A slight increase in task 2, which progressively decreased in the course of time.

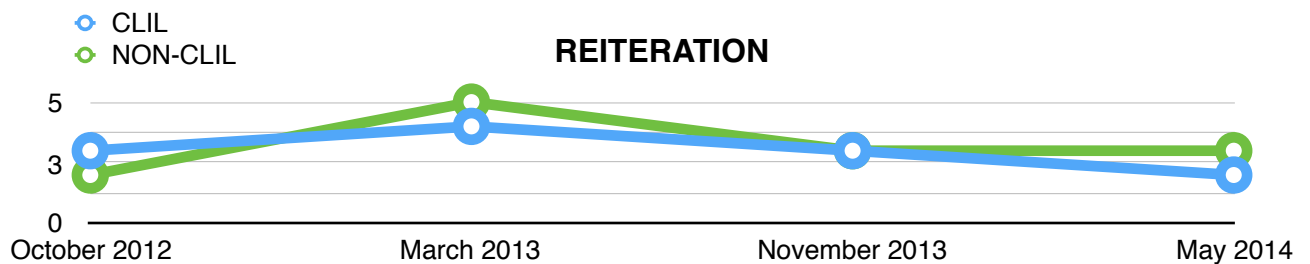


Figure 96. Reiteration code-switches in pair 4

**Excerpt 23**

CLIL student: There is a volcano in the Canary Islands and it can create a tragedy, a tragedy...*provocar unha catástrofe* [REITCLILT2013]

Non-CLIL student: It is sleeping now...dead...no activity...sen actividade, entendes? [REITNONCLILT2013]

As to monitor code-switching, the same as with the previous pair of students, the CLIL student’s self-editing increases in the course of the two years:

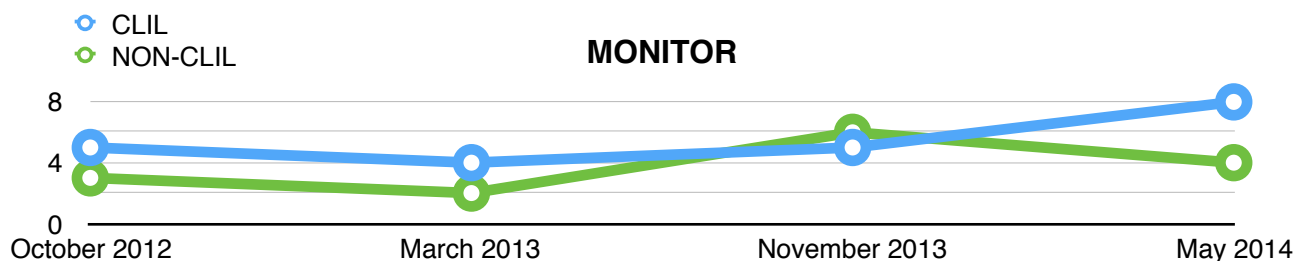


Figure 97. Monitor code-switches in pair 4

**Excerpt 24**

My map \*show every route in different colours to represent export...exportation... *exportación?* [MONCLILT3016].

As regards side comments, the number of times both students code-switched similarly decreased by the end of the programme:

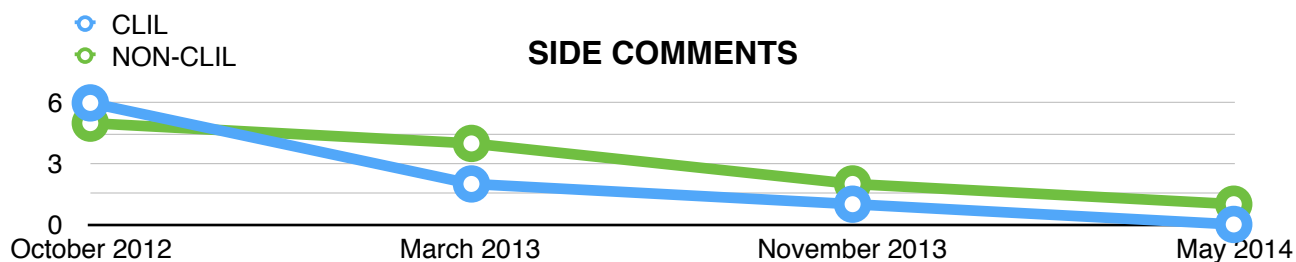


Figure 98. Side comments code-switches in pair 4

**Excerpt 25**

CLIL student: In this interview about disasters in nature [...]. *A ver se acabamos xa* [SIDECLILT20017]

Non-CLIL student: I don’t think that is \*solution, but [...]. *Non soporto esta actividade!* [SIDENONCLILT2017]

The CLIL student's number of code-switches related to marking rights or roles of speakers was higher in both dialogic tasks:

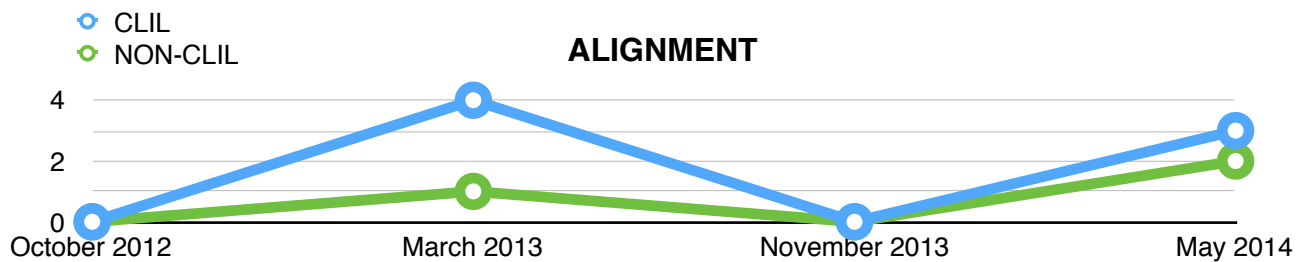


Figure 99. Alignment code-switches in pair 4

### Excerpt 26

CLIL student: So now...*eu non falo, falas ti!* [ALIGNCLILT4011]

While the CLIL student showed a decrease in code-switching on an intersentential basis over the two years in the four tasks analysed, the graph shows a stable use of non-intersentential code-switching on the part of the non-CLIL student, with a slight decrease in task number 3:

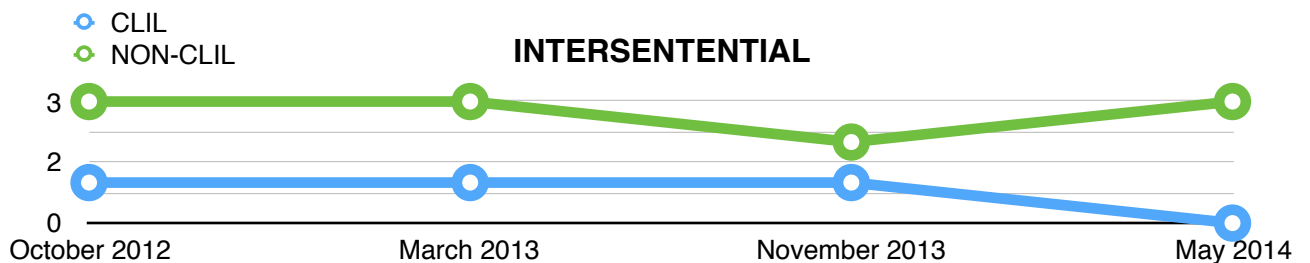


Figure 100. Intersentential code-switches in pair 4

### Excerpt 27

*O proceso foi sinxelo. I \*create an account and...* [INTERNONCLILT3016].

## Pair 5

It was formed by subject CLIL 7 and subject non-CLIL 19. The same as pair 3, they were matched due to their excellent results in all tests —English and Social Science—.

As regards both students' code-switching in the six categories, the following charts show the results in the different tasks. Regarding equivalence, the non-CLIL student seemed to code-switch more times than the CLIL student by the end of the programme. On the other hand, the CLIL counterpart showed a progressive decrease throughout the duration of the programme:

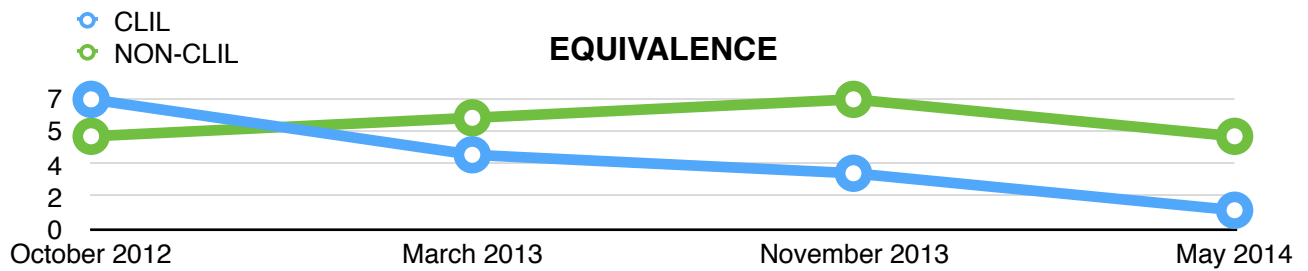


Figure 101. Equivalence code-switches in pair 5

**Excerpt 28**

The *tanques* entered the city and confusion ...[EQUIVCLILT4013].

The following graph shows that both students resorted to reiteration-based code-switching. The occurrences were identical in the first task, but in the other three tasks the non-CLIL student code-switched more times:

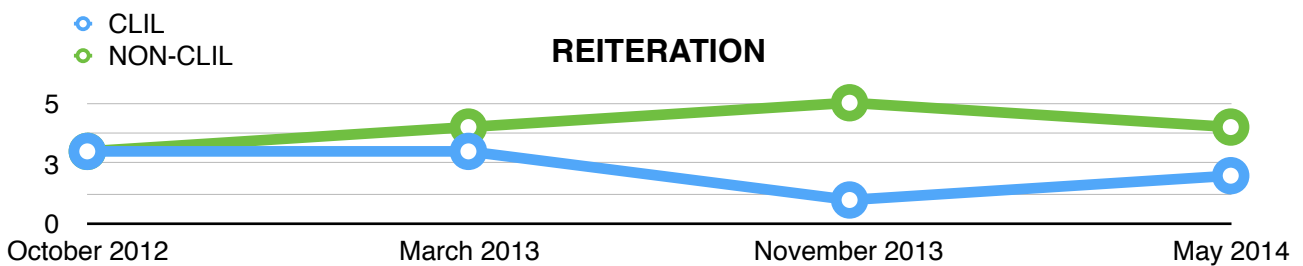


Figure 102. Reiteration code-switches in pair 5

**Excerpt 29**

CLIL student: So it was all about...

Non-CLIL student: Strategy!

CLIL student: Strategy? Only that?

Non-CLIL student: Strategy, *estratexia!* [REITNONCLILT4014]

As regards monitoring or self-editing, the CLIL student seemed to code-switch to a greater extent, exactly as happened with the CLIL student in the other pairs:

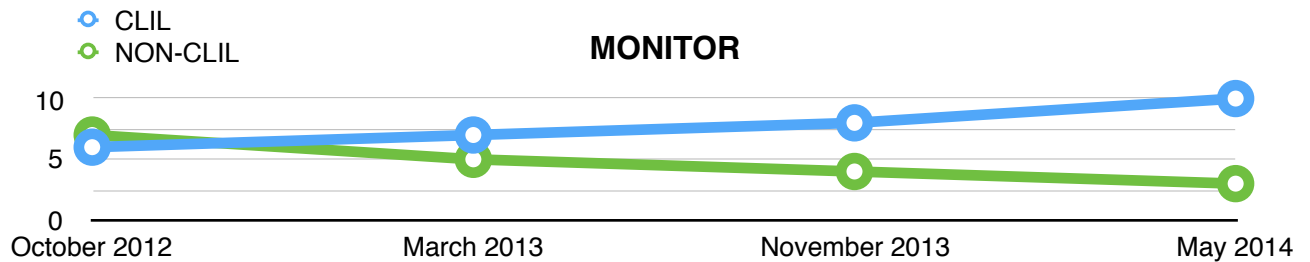


Figure 103. Monitor code-switches in pair 5

### Excerpt 30

On the other hand, I was able to introduce information in every \*geomark...  
*xeomarcador?* [MONCLILT3023].

As regards side comments, the number of times both students code-switched were reduced to zero from task 1 to task 4:

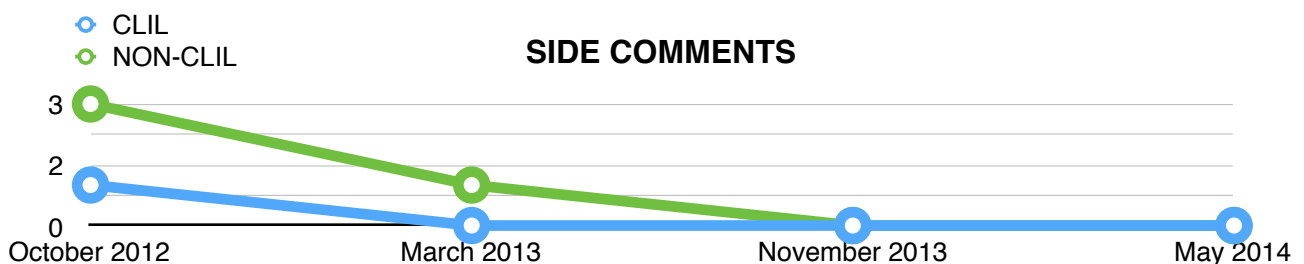


Figure 104. Side comments code-switches in pair 5

### Excerpt 31

CLIL student: Emergency services must be ready in case an earthquake happens.

Non-CLIL student: But here we do not have emergency services. *Vaia chorrada!*

[SIDENONCLILT2012]

The number of code-switches related to alignment of roles was higher in the case of the CLIL student in both dialogic tasks:

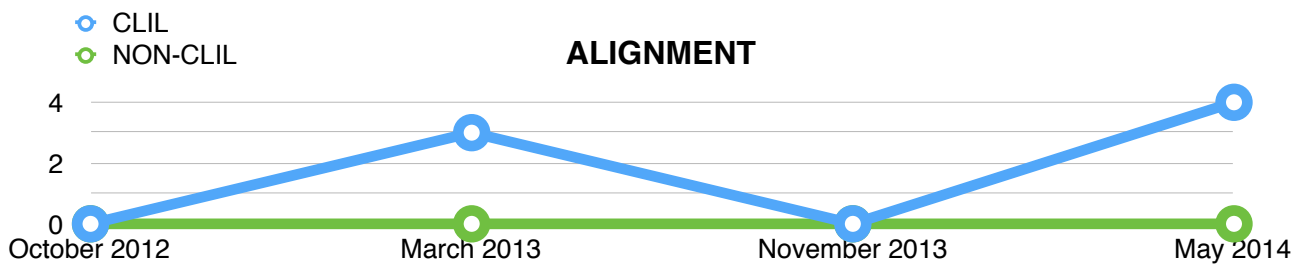


Figure 105. Alignment code-switches in pair 5

### Excerpt 32

CLIL student: *Empezo eu e logo preguntas ti!* Could you give me an adjective that best describes Hitler? [ALIGNCLILT4006]

Non-CLIL student: You say an adjective!

CLIL student: *Eu pergunto primeiro!* [ALIGNCLILT4007]

The CLIL student's intersentential code-switching reduced to zero in tasks 3 and 4, whereas the non-CLIL student resorted to more intersentential switches in the final task:

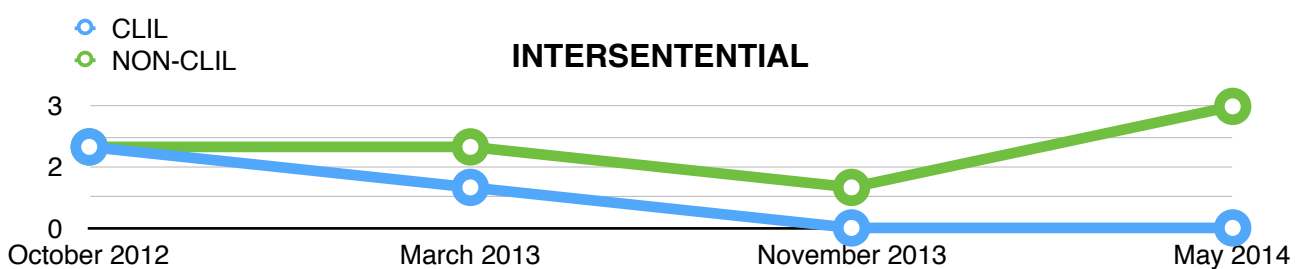


Figure 106. Intersentential code-switches in pair 5

### Excerpt 33

The means of transport in the blog are not the ones I like. *Eu incluiría outros.* [INTERNONCLILT2010].

### 7.2.1.2. Summary of results

The monitoring of tasks and analysis of code-switching in this thesis were carried out 1) to gain a deeper insight into the students' use of the different languages involved in the project; and 2) to contrast the teachers' opinions on code-switching described in section 7.1.3.1. Our project was not only about CLIL, but also about a multilingual approach to language learning in which one of the primary goals was to improve and develop the students' plurilingual competence.

Considering the findings reported in the previous section, I managed to identify several key aspects in students' code-switching:

1) Code-switching to L1 occurred mostly from English to Galician. As explained in section 6.4.1., 95% of students used Galician as an L1 both in the educational environment as well as with family and friends.

2) Coding, transcription and analysis made it possible to identify six different categories of code-switching, thus providing an answer to research question number 8:

RQ8: When does code-switching in CLIL students' talk occur and what is its role?

3) Regarding the differences between CLIL and non-CLIL students' use of code-switching —research question number 9—, some patterns were identified:

a) As regards CLIL students, there seemed to be a decrease in the number of occurrences related to the following categories: equivalence, reiteration, side comments and intersentential code-switching. This tallies with teachers' opinions analysed in section 7.1.3.1., whose answers showed that students' code-switching to L1 when using the foreign language reduced after two years. Nonetheless, in the findings reported in the previous section, there seemed to be a tendency for CLIL students to increase their switches in two categories: monitor and alignment. CLIL



students' self-editing and role-assigning might be related to their being more aware of and more focused on academic language —CALP (see section 3.4.)— than their non-CLIL counterparts.

b) Interestingly, the non-CLIL students reduced the number of switches to Galician by the end of the programme in three of the categories: equivalence, monitor and side comments. No change was identified regarding alignment and a slight increase seemed to take place regarding reiteration and intersentential code-switching.

## 7.2.2. Teachers

As explained in section 6.4.3., the analysis of teachers' perceptions is related to goal number one and research question number 3 (see section 6.3.):

### **RQ3: What are teachers' perceptions on CLIL implementation and results?**

Since the CLIL project analysed in this dissertation was based on curriculum integration and on the collaboration of the different language teachers, the sample was a representation of it: one teacher of Galician, one teacher of Spanish, two teachers of Social Science and two teachers of English. All of the teachers involved were female, with more than 15 years of teaching experience and their age range was 41-60 (see the individual descriptions below).

This section aims at complementing section 7.1.3.1. by means of a qualitative analysis of teachers' views. Qualitative research is designed to reveal a target audience's range of behaviour and the perceptions that drive it with reference to specific topics or issues. It uses in-depth studies of small groups of people to guide and support the construction of hypotheses (Ritchie and Lewis 2003). The results of qualitative research are descriptive rather than predictive. In our analysis, recorded structured open-question interviews were

the tools used for the qualitative analysis of teachers' views on CLIL. Frequently chosen as a data-collecting technique because of their various advantages, recorded interviews typically produce detailed accounts from respondents and the researcher can exploit the interactive nature of the interview to better understand the informants' responses (Garrett et al. 2003). Although *'interviews are extremely time-consuming and difficult to administer'* (Bryman 2004: 133), I decided to use them because the samples were small —6 teachers—. Interviews were recorded (total recording time was 180 minutes) and transcribed, and in-depth notes were taken regarding participants' opinions, noting down possible categories for later coding. As explained in section 6.5.3.3., teachers were interviewed three times over the two years of the project with a view to observing their perceptions on a longitudinal basis.

The purpose of the discussion of the opinion-based data is to complement the previous quantitative analyses regarding attitudes and results. In order to do so, I will interpret and describe the significance of the teachers' views in relation and in addition to what has already been found in the previous sections. The discussion will be based on triangulation of data as it will be connected to the research questions I posed. As a matter of fact, the research questions were one of the categories used to code the data semantically through the software Atlas.ti, a workbench for the qualitative analysis of large bodies of textual, graphical, audio and video data.

Coding was related to four different categories:

- 1) CLIL impact on attitudes, students results and code-switching. In order to represent this category, I used the following elements: research questions [RQ1, RQ2, RQ3...] + positive or negative [+][−] depending on the teachers' view + year [yy] + number.
- 2) Teachers' collaboration and common design: integrated common design [ICD] + positive or negative [+][−] depending on the teachers' view + year [yy] + number.

3) Teacher training as an instrumental part in the teachers' view: teacher training [TT] + positive or negative [+][−] depending on the teachers' view + year [yy] + number.

4) Support from the Education Department: [AS] + positive or negative [+][−] depending on the teachers' view + year [yy] + number.

### 7.2.2.1. Interview-based opinions

In the following tables coded excerpts from the transcriptions of the four-question interviews are shown. Every table features the question posed in the different moments as well as excerpts of the answers given by the teachers. Some teachers used Galician when answering the questions. In those cases, the original answers are included and a translation into English is provided. The different colours shown in the vertical and horizontal headings of the tables are related to each of the teachers.

**Teacher 1** was a 47-year-old female teacher of Galician with no previous experience in the multilingual approach to language learning. Together with all language teachers, she played an active role in designing a multilingual model for both groups. In our CLIL model, as explained in chapter 3, we considered it instrumental to link foreign language learning to L1 learning with a view to 1) making students perceive language learning from a general perspective, i.e. learn all languages in the same way and develop a plurilingual competence; and 2) putting the minority language on a par with the majority languages in the curriculum. Answers to the four questions are shown below:

<b>TEACHER 1 (Galician)</b>			
<b>T E A C H E R  1</b>	<b>QUESTION 1 (as posed in the different moments):</b>		
	<ul style="list-style-type: none"> <li>• <b>Considering what is happening with CLIL in Galicia, which are the positive aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 20%; text-align: center;"><b>Excerpt September 2012</b></td> <td> <p>Non estou moi de acordo co enfoque [RQ6–122], pero o ánimo que teñen os compañeiros e as ganas de innovar fan que participe. Espero que se consigan eses beneficios dos que tantos investigadores falan e imos ver se se cumpren cos nosos nenos neste centro da Galiza rural.</p> <p><i>Translation: I do not agree very much with this approach, but it is my colleagues' willingness to innovate that has made me take part. I do hope we will attain those benefits researchers talk about so much. It remains to be seen if those benefits can be attained with our kids in a rural school in Galicia.</i></p> </td> </tr> </table>	<b>Excerpt September 2012</b>	<p>Non estou moi de acordo co enfoque [RQ6–122], pero o ánimo que teñen os compañeiros e as ganas de innovar fan que participe. Espero que se consigan eses beneficios dos que tantos investigadores falan e imos ver se se cumpren cos nosos nenos neste centro da Galiza rural.</p> <p><i>Translation: I do not agree very much with this approach, but it is my colleagues' willingness to innovate that has made me take part. I do hope we will attain those benefits researchers talk about so much. It remains to be seen if those benefits can be attained with our kids in a rural school in Galicia.</i></p>
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<table border="1" style="width: 100%;"> <tr> <td style="width: 20%; text-align: center;"><b>Excerpt June 2013</b></td> <td> <p>A verdade é que foi un ano estupendo. Os alumnos aprenderon como nunca, viaxaron, etc. Nós, o equipo de profes, aprendemos a colaborar, a deseñar en común, a avaliar de maneira integrada [ICD+135]. A verdade é que nunca pensei que seríamos quen de facelo.</p> <p><i>Translation: The truth is that it has been a fantastic year. Our students have learned a lot, travelled, etc. We, the teachers involved, learned how to collaborate, to design together and to assess in an integrated way. The truth is that I never would have thought that we would have been able to do it.</i></p> </td> </tr> </table>	<b>Excerpt June 2013</b>	<p>A verdade é que foi un ano estupendo. Os alumnos aprenderon como nunca, viaxaron, etc. Nós, o equipo de profes, aprendemos a colaborar, a deseñar en común, a avaliar de maneira integrada [ICD+135]. A verdade é que nunca pensei que seríamos quen de facelo.</p> <p><i>Translation: The truth is that it has been a fantastic year. Our students have learned a lot, travelled, etc. We, the teachers involved, learned how to collaborate, to design together and to assess in an integrated way. The truth is that I never would have thought that we would have been able to do it.</i></p>	
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<table border="1" style="width: 100%;"> <tr> <td style="width: 20%; text-align: center;"><b>Excerpt June 2014</b></td> <td> <p>Foi unha experiencia moi positiva en termos xerais, tanto a nivel de efectos positivos nas aprendizaxes do alumnado [RQ1+141] [RQ3+141] [RQ4+141] [RQ5+141] [RQ6+141] [RQ7+141] como para o profesorado participante [TT+144]. ¡Canto aprendemos!</p> <p><i>Translation: It has been a really positive experience in general terms for both the learners' learning skills and the teachers'. We have learned so much!</i></p> </td> </tr> </table>	<b>Excerpt June 2014</b>	<p>Foi unha experiencia moi positiva en termos xerais, tanto a nivel de efectos positivos nas aprendizaxes do alumnado [RQ1+141] [RQ3+141] [RQ4+141] [RQ5+141] [RQ6+141] [RQ7+141] como para o profesorado participante [TT+144]. ¡Canto aprendemos!</p> <p><i>Translation: It has been a really positive experience in general terms for both the learners' learning skills and the teachers'. We have learned so much!</i></p>	
<b>Excerpt June 2014</b>	<p>Foi unha experiencia moi positiva en termos xerais, tanto a nivel de efectos positivos nas aprendizaxes do alumnado [RQ1+141] [RQ3+141] [RQ4+141] [RQ5+141] [RQ6+141] [RQ7+141] como para o profesorado participante [TT+144]. ¡Canto aprendemos!</p> <p><i>Translation: It has been a really positive experience in general terms for both the learners' learning skills and the teachers'. We have learned so much!</i></p>		

Table 74. Interview. Question 1. Teacher 1's answers

As regards question number 1 about positive aspects in CLIL implementation, from her initial disbelief, misgivings and preconceptions before starting the project, her views changed towards supporting collaboration, common design and assessment one year later —[ICD+135]—. After two years of implementation, she turned to even more positive views regarding CLIL effects on teachers —[TT+144]— and students' attitudes —[RQ1+141]— and results in relation to languages and content—[RQ1+141], [RQ3+141], [RQ4+141], [RQ5+141], [RQ6+141] and [RQ7+141]—.

<b>T E A C H E R  1</b>	<b>QUESTION 2 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• <b>We are going to start implementing CLIL in our school. Which are the negative aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>	
	<b>Excerpt September 2012</b>	<p>Nos centros onde se está a facer, normalmente segrégase aos alumnos [meaning that CLIL groups are normally academically better] e os profesores non están preparados [TT—121].</p> <p>Translation: <i>In the schools where it is being implemented the usual thing is for students to be separated [meaning that CLIL groups are normally academically better] and for teachers not to be trained.</i></p>
	<b>Excerpt June 2013</b>	<p>O único negativo no noso centro é non ter horas suficientes para nos coordinarmos. Todo depende da nosa vontade [AS—131].</p> <p>Translation: <i>The only negative thing in our school is not having enough time to meet and coordinate things. Everything is up to us.</i></p>
<b>Excerpt June 2014</b>	<p>A pesar de “regalar” o noso tempo á administración [AS—141], se analizamos os resultados dos alumnos [RQ1+142] [RQ3+142] [RQ4+142] [RQ5+142] [RQ6+142] [RQ7+142] e canto aprendemos os profesores [TT+145], non podo dicir nada negativo.</p> <p>Translation: <i>Despite ‘giving away’ our time to the administration [criticising the Education Department here], if we analyse our students’ results as well as how much we have learned, I can’t say anything negative.</i></p>	

Table 75. Interview. Question 2. Teacher 1’s answers

With regard to question number 2 and prior to starting the CLIL project, teacher 1 addressed issues such as the lack of teacher training —[TT—121]— and the fact that CLIL students used to be academically better. After year one, the only negative thing about the programme she could identify was related to the lack of support on the part of the Education Department —[AS—131]—. In June 2014, when asked the same question, she identified again the lack of support from government administration —[AS—141]—. Nonetheless, she insisted on the positive effects of CLIL on 1) the students’ attitudes and motivations, languages and contents— [RQ1+142], [RQ3+142], [RQ4+142], [RQ5+142], [RQ6+142] and [RQ7+142]—; and 2) teachers’ learning —[TT+145]—.

<b>T E A C H E R  1</b>	<b>QUESTION 3 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• <b>Do you think the students' communicative competence in the three languages is going to change? (September 2012)</b></li> <li>• <b>After one year in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2013)</b></li> <li>• <b>After two years in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2014)</b></li> </ul>	
	<b>Excerpt September 2012</b>	<p>Penso que CLIL non afectará ás linguas ambientais [RQ5—121], pero creo que os alumnos mellorarán a súa competencia en inglés [RQ4+121].</p> <p><i>Translation: I think CLIL won't affect the environmental languages, but I believe that the students will improve their competence in English.</i></p>
	<b>Excerpt June 2013</b>	<p>Despois dun ano facendo tarefas comúns coas outras linguas [ICD+132], as destrezas do alumnado melloraron sen dúbida tanto nas linguas como nos contidos [RQ4+131] [RQ5+131] [RQ6+131] [RQ7+131].</p> <p><i>Translation: After a year doing tasks relating all languages, there is no doubt that students have improved their language and content related skills.</i></p>
<b>Excerpt June 2014</b>	<p>Unha mellora significativa nas tres linguas, tanto na oralidade como na escrita [RQ4+143] [RQ5+143] [RQ6+143]. O deseño común funciona [ICD+142].</p> <p><i>Translation: Significant improvement in the three languages, both in the oral and the written medium. The fact that teachers design together works.</i></p>	

Table 76. Interview. Question 3. Teacher 1's answers

Regarding question number 3, teacher 1 showed her disbelief about the students improving their competence in L1 —[RQ5—121]—, although she claimed that CLIL students would improve their communicative competence in English —[RQ4+121]—. After year one and year two, her views changed completely as she stated that CLIL students had improved competence in the three languages as well as in content learning— [RQ4+131], [RQ5+131], [RQ6+131] and [RQ7+131]—. When interviewed in 2013 and 2014, she put students' improvement down to teacher's collaboration and common design —[ICD+132] and [ICD+142]—.

<b>T E A C H E R  1</b>	<b>QUESTION 4 (only asked in June 2014):</b>	
	• <b>Do you think CLIL implementation should go on? Why?</b>	
	<b>Excerpt June 2014</b>	<p>Eu penso que si. Hai que quitarse de enriba os prexuizos. Se se fai ben, coa formación axeitada, se se colabora, se o profesorado de linguas se reúne, se coordina e deseña en común, a aprendizaxe tanto para alumnos —na lingua e no contido— como para profesores é inmenso [ICD+142] [RQ4+144] [RQ5+144] [RQ6+144] [RQ7+143]. Mellora as relacións entre os profesores porque se traballa ducha maneira diferente.</p> <p>Translation: <i>I think it will. We have to get rid of preconceptions. When implemented correctly and provided teachers are trained and language teachers meet regularly to coordinate and design together, learning for both students —language and content wise— and teachers is huge. CLIL improves relations among the teachers because they work in a different way.</i></p>

Table 77. Interview. Question 4. Teacher 1's answers

Her answer to question number 4 reiterated the same view: students' general improvement in all languages and in content learning in connection to teachers' methodology —[ICD +142], [RQ4+144], [RQ5+144], [RQ6+144] and [RQ7+143]— .

**Teacher 2** was a 52-year old female teacher of English with no previous experience in either CLIL or a multilingual approach to language learning. Her role was that of being a coordinator for both groups of students in year one. In our CLIL model, a bilingual section (see section 5.3.), a subject teacher —Social Science teacher in our project— and a language specialist —an English teacher in our programme— worked together as a tandem. The English teacher's role is that of a coordinator mentoring the subject teacher as regards integrating language through content and cognition, i.e. in adapting or adjusting language to content and cognition (see section 3.2.).

Her views regarding CLIL implementation changed in the course of time towards more positive opinions about students' language and content related results as well as teachers' collaboration as shown below:

<b>TEACHER 2 (English)</b>			
<b>T E A C H E R  2</b>	<b>QUESTION 1 (as posed in the different moments):</b>		
	<ul style="list-style-type: none"> <li>• <b>Considering what is happening with CLIL in Galicia, which are the positive aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 25%; text-align: center;"><b>Excerpt September 2012</b></td> <td>I am going to face integrated design for the first time and feel really excited about it. We have been told that there are lots of positive effects. So far, we have enjoyed wonderful training sessions [TT+121] and collaboration seems feasible [ICD+121].</td> </tr> </table>	<b>Excerpt September 2012</b>	I am going to face integrated design for the first time and feel really excited about it. We have been told that there are lots of positive effects. So far, we have enjoyed wonderful training sessions [TT+121] and collaboration seems feasible [ICD+121].
	<b>Excerpt September 2012</b>	I am going to face integrated design for the first time and feel really excited about it. We have been told that there are lots of positive effects. So far, we have enjoyed wonderful training sessions [TT+121] and collaboration seems feasible [ICD+121].	
<table border="1" style="width: 100%;"> <tr> <td style="width: 25%; text-align: center;"><b>Excerpt June 2013</b></td> <td>The students' improvement in using English (above all, orally) has been spectacular [RQ4+132]. Working with my colleagues has been the best [ICD+133].</td> </tr> </table>	<b>Excerpt June 2013</b>	The students' improvement in using English (above all, orally) has been spectacular [RQ4+132]. Working with my colleagues has been the best [ICD+133].	
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<b>Excerpt June 2014</b>	CLIL students have enjoyed the opportunity to develop their capacity to interrelate their skills in a new way and they feel more confident and excited when using English and the other languages [RQ4+145] [RQ5+145] [RQ6+145].		

Table 78. Interview. Question 1. Teacher 2's answers

As regards question 1 and despite her lack of experience, teacher 2 seemed quite motivated and showed really positive attitudes towards the project back in 2012 regarding the initial teacher training received prior to the start of the CLIL programme —[TT+121]—, as well as about her readiness to collaborate with the other teachers —[ICD+121]—. After year one, she claimed that students had improved their oral use of English —[RQ4+132]— and expressed her satisfaction about team work —[ICD+133]—. By the end of the programme, she stated that CLIL students had developed and improved their capacity for using the different languages —[RQ4+145], [RQ5+145] and [RQ6+145]—.



<b>T E A C H E R  2</b>	<b>QUESTION 2 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• We are going to start implementing CLIL in our school. Which are the negative aspects you can see in CLIL implementation at the moment? (September 2012)</li> <li>• After one year in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2013)</li> <li>• After two years in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2014)</li> </ul>	
	<b>Excerpt September 2012</b>	In other schools the non-CLIL students are the worst students result-wise.
	<b>Excerpt June 2013</b>	Nothing negative, really.
	<b>Excerpt June 2014</b>	Nothing negative. Students have developed so many skills and their communicative competence has improved so much that I would do this again a million times [RQ4+146] [RQ5+146] [RQ6+146].

Table 79. Interview. Question 2. Teacher 2's answers

When she was asked about the negative aspects in CLIL implementation, she went from what she thought was happening in other schools implementing CLIL —CLIL students used to be academically better— to finding nothing negative by reiterating the benefits of CLIL for language learning —[RQ4+146], [RQ5+146] and [RQ6+146]—.

<b>T E A C H E R  2</b>	<b>QUESTION 3 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• Do you think the students' communicative competence in the three languages is going to change? (September 2012)</li> <li>• After one year in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2013)</li> <li>• After two years in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2014)</li> </ul>	
	<b>Excerpt September 2012</b>	I do believe the students in the CLIL group will improve their communicative competence in English [RQ4+122], although I doubt whether they will improve it in Galician or Spanish [RQ5—122].
	<b>Excerpt June 2013</b>	Contrary to what I expected at the beginning of the project, students' improvement of oral and written skills in the three languages has taken place [RQ4+133] [RQ5+132] [RQ6+132].

	<b>Excerpt June 2014</b>	They are now more aware of the differences and similarities between the languages and consequently more confident when using them. Massive improvement! [RQ4+147] [RQ5+147] [RQ6+147]
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Table 80. Interview. Question 3. Teacher 2's answers

Regarding question 3, she corroborated her initial views regarding English learning both in 2013 and 2014 —[RQ4+147], [RQ5+147] and [RQ6+147]—. On the other hand, her initial disbelief about the positive effects of CLIL on L1 learning gave way to stating that the students had developed a plurilingual competence —[RQ4+147], [RQ5+147] and [RQ6+147]—.

<b>T E A C H E R  2</b>	<b>QUESTION 4 (only asked in June 2014):</b>	
	• <b>Do you think CLIL implementation should go on? Why?</b>	
	<b>Excerpt June 2014</b>	Definitely yes. It gives a sense of "usefulness" to the additional language which significantly improves its learning. It also makes the students reflect on all the languages they use, which can only benefit their performance in all the subjects [RQ4+148] [RQ5+148] [RQ6+148] [RQ7+144]

Table 81. Interview. Question 4. Teacher 2's answers

As regards question number 4 in 2014, she claimed that students had improved not only their communicative competence in all languages but also their performance regarding content learning —[RQ4+148], [RQ5+148], [RQ6+148] and [RQ7+144]—.

**Teacher 3** was the Social Science teacher in year one. She was 48 years old and had developed CLIL programmes previously. As said above, in our CLIL model, a bilingual section (see section 5.3.), a subject teacher —the Social Science teacher in our project— and a language specialist —an English teacher in our programme— worked together as a tandem. The subject teacher taught both groups using different vehicular languages: Galician was used with the non-CLIL students and English was the language used with the CLIL group. As explained in chapters 3 and 6, the methodology used was the same with

both groups. The only difference was the vehicular language used for teaching Social Science.

<b>TEACHER 3 (CLIL - Social Science)</b>			
<b>T E A C H E R  3</b>	<b>QUESTION 1 (as posed in the different moments):</b>		
	<ul style="list-style-type: none"> <li>• <b>Considering what is happening with CLIL in Galicia, which are the positive aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 20%; text-align: center;"><b>Excerpt September 2012</b></td> <td> <p>Non é a primeira vez que me enfronto a unha experiencia como esta. Coñezo os aspectos positivos para os nenos e para os profes tamén e teño moitas expectativas esta vez.</p> <p><i>Translation: This is not the first time I have taken part in an experience like this. I know the positive aspects for kids as well as for teachers. My expectations are high this time.</i></p> </td> </tr> </table>	<b>Excerpt September 2012</b>	<p>Non é a primeira vez que me enfronto a unha experiencia como esta. Coñezo os aspectos positivos para os nenos e para os profes tamén e teño moitas expectativas esta vez.</p> <p><i>Translation: This is not the first time I have taken part in an experience like this. I know the positive aspects for kids as well as for teachers. My expectations are high this time.</i></p>
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<table border="1" style="width: 100%;"> <tr> <td style="width: 20%; text-align: center;"><b>Excerpt June 2013</b></td> <td> <p>Aprender contido mediante a lingua estranxeira e deseñar tarefas coas profes de todas as linguas [ICD+134] poñendo en relación as aprendizaxes resultou enriquecedor para alumnos e tamén para nós.</p> <p><i>Translation: Learning content through a foreign language and designing tasks with teachers of other languages, putting all kinds of learning in relation was an enriching experience for the kids and for us.</i></p> </td> </tr> </table>	<b>Excerpt June 2013</b>	<p>Aprender contido mediante a lingua estranxeira e deseñar tarefas coas profes de todas as linguas [ICD+134] poñendo en relación as aprendizaxes resultou enriquecedor para alumnos e tamén para nós.</p> <p><i>Translation: Learning content through a foreign language and designing tasks with teachers of other languages, putting all kinds of learning in relation was an enriching experience for the kids and for us.</i></p>	
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Table 82. Interview. Question 1. Teacher 3's answers

As regards question 1, teacher 3 expressed her positive views from the very beginning. This was related to her previous experience. Her answers to question 1 stated the benefits of CLIL regarding foreign language learning —[RQ4+149]— on the grounds of teachers' collaboration and common design —[ICD+134]—.

<b>QUESTION 2 (as asked in the different moments):</b>	
<b>T E A C H E R  3</b>	<ul style="list-style-type: none"> <li>• <b>We are going to start implementing CLIL in our school. Which are the negative aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>
	<p><b>Excerpt September 2012</b></p> <p>Creo que é necesaria unha formación previa do profesorado [TT+122] para desenvolver metodoloxías CLIL axeitadas, posto que en caso contrario (e dáse con certa frecuencia) os profesores se limitan a reproducir na lingua estranxeira as mesmas clases que imparten na primeira lingua.</p> <p>Translation: <i>I think previous teacher training is necessary to develop appropriate CLIL-related methodologies. When this is not the case (something that frequently happens), teachers just replicate what they do in L1-based lessons.</i></p>
	<p><b>Excerpt June 2013</b></p> <p>O tempo persoal que tivemos que dedicar á coordinación e deseño común. A administración debería darnos horas para iso [AS—132].</p> <p>Translation: <i>We had to take on our personal time to coordination and common design. The Education Department should provide us with specific times to do so.</i></p>
	<p><b>Excerpt June 2014</b></p> <p>Despois de dous anos e vendo os resultados acadados, non podo dicir nada negativo. Bueno, falta máis apoio por parte de Xunta [AS—142].</p> <p>Translation: <i>After two years given the results attained, I cannot mention anything being negative. Well, we need more support from the Education Department.</i></p>

Table 83. Interview. Question 2. Teacher 3's answers

As regards question 3, she claimed that teacher training was instrumental for CLIL implementation to be successful —[TT+122]—. After year one, the only negative thing about the programme she could identify was related to the lack of support on the part of the Education Department —[AS—132]—. In June 2014, when asked the same question, she identified again the lack of support from the government administration —[AS—142]

—.

<b>T E A C H E R  3</b>	<b>QUESTION 3 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• <b>Do you think the students' communicative competence in the three languages is going to change? (September 2012)</b></li> <li>• <b>After one year in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2013)</b></li> <li>• <b>After two years in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2014)</b></li> </ul>	
	<b>Excerpt September 2012</b>	<p>Estou segura de que a mellora en inglés producirase [RQ4+123], pero teño as miñas dúbidas sobre as outras dúas linguas [RQ5—123].</p> <p>Translation: <i>I am certain that there will be an improvement in English, but I have doubts about the improvement in the other languages.</i></p>
	<b>Excerpt June 2013</b>	<p>Despois dun ano de implementación, teño clarísima a mellora na utilización do inglés na clase de ciencias sociais [RQ4+134]. Non atopo ningún problema na aprendizaxe de contido en absoluto [RQ7+132]. Non podo valorar as outras linguas.</p> <p>Translation: <i>After one year of implementation, I am sure about the improvement in the use of English in Social Science. I cannot find any single problem about content learning. I cannot assess the other languages.</i></p>
<b>Excerpt June 2014</b>	<p>No caso do inglés, non hai dúbida de que o alumnado é capaz, despois de dous anos, de entender textos complexos sobre ciencias sociais, de elaborar traballos sobre contidos xeográficos ou históricos utilizando unha linguaxe axeitada e, en xeral, de seguir unha clase nesta lingua participando activamente na mesma [RQ4+1410]. No caso do galego, non noto diferenzas apreciables entre os estudantes CLIL e os que cursaron as materias en galego [RQ5+149]. Non podo valorar a súa competencia comunicativa en español, dado que non imparto clases nesta lingua.</p> <p>Translation: <i>As regards English, there's no doubt that students, after two years, are able to understand complex texts about Social Science; do projects on geographical or historical contents using the appropriate language; and, in general, understand the lessons taking an active part in them. With regard to Galician, I cannot see any differences between the CLIL students and the ones doing Social Science in Galician. I am afraid I cannot assess their competence in Spanish, as I do not teach my lessons in this language.</i></p>	

Table 84. Interview. Question 3. Teacher 3's answers

Regarding question number 3, teacher 3 showed some misgivings about the students improving their competence in L1 —[RQ5—123]—, although she claimed that CLIL students would improve their communicative competence in English —[RQ4+123]—. After year one and year two, her views did not change regarding improvement in the foreign language, as she stated that CLIL students had improved their competence in English —

[RQ4+134] and [RQ4+1410]—. Her initial doubts about the students' improvement in the other two languages gave way to her seeing no difference between both CLIL and non-CLIL students regarding Galician —[RQ5+149]—. She claims that she cannot evaluate Spanish as she had not taught Social Science through Spanish. Furthermore, she claimed students had not found any difficulty in learning content through English —[RQ7+132]—.

QUESTION 4 (only asked in June 2014):	
<b>T E A C H E R  3</b>	<ul style="list-style-type: none"> <li>Do you think CLIL implementation should go on? Why?</li> </ul>
	<p><b>Excerpt June 2014</b></p> <p>Dende o meu punto de vista, é importante que o enfoque CLIL se manteña no futuro, dado que se lle está dando ao alumnado a oportunidade de utilizar a segunda lingua (terceira neste caso) en contextos reais de aprendizaxe. O inglés pasa de ser unha materia máis a ser unha ferramenta necesaria para a adquisición e a transmisión de coñecementos; os estudantes perden "o medo" [RQ1+143] e acaban por utilizar a lingua estranxeira con normalidade, asumindo que todas as linguas teñen en definitiva a mesma función: a comunicativa [RQ6+149].</p> <p>Translation: <i>In my opinion, it is important to keep implementing the CLIL approach, because it gives the students the chance to use a second (or third in this case) language in real contexts. English becomes a vehicle for acquisition and transmission of knowledge. The students lose their fear of using the foreign language and assume that all languages have the same function: communicative.</i></p>

Table 85. Interview. Question 4. Teacher 3's answers

Her answer to the final question in 2014 showed her satisfaction and her support for the CLIL model as she claimed students had developed more positive attitudes —[RQ1+143]— as well as they developed a plurilingual competence —[RQ6+149]—.

**Teacher 4** was a 41-year-old female teacher of Spanish with a lot of experience in multilingual programmes related to the integrated treatment of languages. Together with all language teachers, she played an active role in designing a multilingual model for both groups. As explained above, in our CLIL model, we linked foreign language learning to L1 learning with a view to 1) making students develop a plurilingual competence; and 2) putting the minority language —Galician— on a level with the majority languages in the curriculum —Spanish and English—. Answers to the four questions are shown below:

<b>TEACHER 4 (Spanish)</b>	
<b>QUESTION 1 (as posed in the different moments):</b>	
<ul style="list-style-type: none"> <li>• <b>Considering what is happening with CLIL in Galicia, which are the positive aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>	
<b>Excerpt September 2012</b>	<p>Fálase da mellora na lingua dos estudantes [RQ4+124] [RQ5+121] [RQ6+121], das novas maneiras de deseñar as clases, de utilizar a tecnoloxía, e sobre todo, de traballar de maneira interdisciplinar e por proxectos [RQ3+121].</p> <p><i>Translation: It is said that [CLIL] improves students' language competence as well as it provides new ways of lesson-designing, using technology and, most importantly, working in a cross-curricular way and through project work.</i></p>
<b>Excerpt June 2013</b>	<p>Mellora xeral da competencia comunicativa nas tres linguas. O traballo plurilingüe paga a pena [RQ6+133]</p> <p><i>Translation: A global improvement in [the students'] communicative competence in the three languages. Work on a plurilingual basis is worthwhile.</i></p>
<b>Excerpt June 2014</b>	<p>Mellora a competencia comunicativa do alumnado, tanto na lingua estranxeira coma nas ambientais, porque permite a transferencia e evita as duplicacións e redundancias entre as diferentes áreas lingüísticas [RQ6+1410]</p> <p><i>Translation: [CLIL] improves the students' communicative competence, both in the foreign language and the other languages, because it allows transference and avoids duplication and redundancies among the different language subjects.</i></p>

Table 86. Interview. Question 1. Teacher 4's answers

Teacher 4's views were consistent from the very beginning of the project. According to her opinions, the main positive effects of CLIL were related to the students' development of a plurilingual competence —[RQ4+124], [RQ5+121], [RQ6+121], [RQ6+133] and [RQ6+1410]—. She stated that students had improved their communicative competence in the three languages as CLIL and the multilingual approach had allowed transference and avoided duplication and redundancies among the different languages as subjects.

<b>T E A C H E R  4</b>	<b>QUESTION 2 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• We are going to start implementing CLIL in our school. Which are the negative aspects you can see in CLIL implementation at the moment? (September 2012)</li> <li>• After one year in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2013)</li> <li>• After two years in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2014)</li> </ul>	
	<b>Excerpt September 2012</b>	<p>Malia non ser o caso do noso centro, en moitos outros o enfoque non é realmente CLIL, ficando reducido tan só a aprender listaxes de vocabulario dunha determinada área nunha lingua estranxeira [RQ3—121].</p> <p>Translation: <i>Although it is not the case in our school, the approach adopted by other schools is not really CLIL as it is limited to learning vocabulary lists in a foreign language in a content subject.</i></p>
	<b>Excerpt June 2013</b>	<p>Nada negativo, excepto o feito de que a administración non fornece os tempos e espazos suficientes para este modelo de integración curricular [AS—133].</p> <p>Translation: <i>Not a negative thing, except for the fact that the Education Department does not provide us with the necessary times and spaces for this model of curriculum integration.</i></p>
<b>Excerpt June 2014</b>	<p>Non podo dicir nada negativo.</p> <p>Translation: <i>Nothing negative.</i></p>	

Table 87. Interview. Question 2. Teacher 4's answers

As regards question 2, prior to the start of the project back in 2012 she negatively referred to issues such as vocabulary memorisation as a strategy for content learning in other schools —[RQ3—121]—. After year one, the only negative thing about the programme she could identify was related to the lack of support on the part of the Education Department — [AS—133]—. In June 2014, when asked the same question, she did not mention a single negative thing about CLIL implementation.



<b>T E A C H E R  4</b>	<b>QUESTION 3 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• <b>Do you think the students' communicative competence in the three languages is going to change? (September 2012)</b></li> <li>• <b>After one year in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2013)</b></li> <li>• <b>After two years in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2014)</b></li> </ul>	
	<b>Excerpt September 2012</b>	<p>Non sei realmente se CLIL vai ter un impacto nas linguas cooficiais en Galiza, ademais do inglés.</p> <p>Translation: <i>I do not really know if CLIL will have an impact on the co-official languages in Galicia, apart from English.</i></p>
	<b>Excerpt June 2013</b>	<p>Neste ano, despois de que o alumnado fixera non só CLIL senón que nós, as profesoras de linguas, para apoiar o proxecto, fixeramos tratamento integrado das linguas ambientais, hai unha mellora significativa no uso oral e escrito das mesmas [RQ6+134] [ICD+139].</p> <p>Translation: <i>This year, after the students having enrolled on CLIL and the teachers having implemented an integrated treatment of languages, there is a significant improvement in the oral and written use of all languages.</i></p>
<b>Excerpt June 2014</b>	<p>No caso concreto da promoción que fixo CLIL durante dous anos, obsérvase maior competencia comunicativa nas dúas linguas ambientais e mais en inglés, probablemente tamén favorecido polo tratamento integrado das linguas cooficiais dende 3ºESO [RQ6+1411] [ICD+147].</p> <p>Translation: <i>As regards the group that was enrolled on CLIL for two years, we can observe a higher competence in the three languages probably due to the integrated treatment of languages since 3ESO [third year of compulsory secondary education].</i></p>	

Table 88. Interview. Question 3. Teacher 4's answers

Regarding question 3 about the impact of CLIL in the three languages, from her initial doubts in 2012, her views became rather positive in both 2013 and 2014. According to her, students seemed to have improved their communicative competence in all languages — [RQ6+134] and [RQ6+1411]— due to the CLIL model and the multilingual approach to language learning, favoured and implemented by all the language teachers involved in the project.

<b>T E A C H E R  4</b>	<b>QUESTION 4 (only asked in June 2014):</b>	
	<ul style="list-style-type: none"> <li>• <b>Do you think CLIL implementation should go on? Why?</b></li> </ul>	
	<b>Excerpt June 2014</b>	<p>Si, debería continuar. Penso que un enfoque integrado [ICD+148] é a mellor maneira de conseguir a competencia lingüística do alumnado. As linguas son as ferramentas indispensables para adquirir os coñecementos dos diferentes ámbitos, por iso, cando se pon en marcha un enfoque CLIL, melloran os seus coñecementos nas distintas materias: a(s) lingüística(s) e a(s) non lingüística(s) [RQ6+1412] [RQ7+145].</p> <p><i>Translation: Yes, it should go on. I think an integrated approach is the best way to develop the students' language competence. Languages are instrumental in acquiring knowledge in the different areas. This is the reason why students improve knowledge in the different content and language areas when CLIL is implemented.</i></p>

Table 89. Interview. Question 4. Teacher 4's answers

Her answer to question 4 in 2014 summed up her views on the benefits of CLIL: provided teachers collaborated and designed together —[ICD+148]— students could develop and improve their plurilingual competence —[RQ6+1412]— as well as their content learning —[RQ7+145]—.

**Teacher 5** was the Social Science teacher in year two. She was 54 years old and had no previous experience in CLIL programmes. These are some excerpts of teacher 5's answers to the four questions:

<b>T E A C H E R  5</b>	<b>TEACHER 5 (CLIL - Social Science)</b>	
	<b>QUESTION 1 (as posed in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• <b>Considering what is happening with CLIL in Galicia, which are the positive aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>	

<b>E R  5</b>	<b>Excerpt September 2012</b>	I do think CLIL will give us the chance to work differently [RQ3+122] and the students will develop a better communicative competence [RQ6+122].
	<b>Excerpt June 2013</b>	Wonderful results, improvement of students' competence in the three languages [RQ6+135], collaboration, joint integrated design, project work... [ICD+135]
	<b>Excerpt June 2014</b>	Curriculum integration, collaboration, joint design... [ICD+143]. The fact that it can be used with ALL students makes it amazing [RQ3+143].

Table 90. Interview. Question 1. Teacher 5's answers

Her initial positive views —[RQ3+122] and [RQ6+122]—were sustained in the course of time —[RQ3+143]—. According to her, students had improved their competence in the three languages. This improvement seemed to be directly connected to teachers' methodology, based on curriculum integration, common design or collaboration — [RQ6+135] and [ICD+143]—.

<b>T E A C H E R  5</b>	<b>QUESTION 2 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• <b>We are going to start implementing CLIL in our school. Which are the negative aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>	
	<b>Excerpt September 2012</b>	Lack of pedagogical training [TT–122]. A good competence in the foreign language does not guarantee the quality of the project, because CLIL teachers MUST be trained methodologically.
	<b>Excerpt June 2013</b>	After a year collaborating with colleagues [ICD+136], I cannot say a single negative thing about the project. At the beginning I had doubts about our own training. But the training modules plus the constant cooperation has made me learn a lot of things from a professional perspective [TT+131].
<b>Excerpt June 2014</b>	When CLIL is implemented the way we have done it (previous teacher training, perfect cross-curricular planning, task-based and project-based learning, travelling abroad...) talking about something negative about this well-planned programme would be unfair [TT+141] [ICD+144] [RQ3+144].	

Table 91. Interview. Question 2. Teacher 5's answers

As regards the question related to negative aspects, teacher 5 identified a key aspect: the lack of teacher training —[TT-122]—. Over the two years, her positive views — [RQ3+144]— about CLIL implementation had to do with a careful planning and design — [ICD+136] and [ICD+144]— as well as with the previous teacher training —[TT+131] and [TT+141]—.

<b>T E A C H E R  5</b>	<b>QUESTION 3 (as asked in the different moments):</b>	
	<ul style="list-style-type: none"> <li>• <b>Do you think the students' communicative competence in the three languages is going to change? (September 2012)</b></li> <li>• <b>After one year in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2013)</b></li> <li>• <b>After two years in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2014)</b></li> </ul>	
	<b>Excerpt September 2012</b>	CLIL is going to make an impact in the students' competence in English [RQ4+125]. The English teachers are going to work with the other language teachers (Galician and Spanish) and we, the content teachers are contributing to that in our area [ICD+122]. Hopefully results will be positive.
	<b>Excerpt June 2013</b>	I think that, after this year, all teachers involved have wowed at the improvement of students' communicative skills in the three languages [RQ6+136]. No problem found in content learning either [RQ7+133].
<b>Excerpt June 2014</b>	The unquestionable improvement in the three languages, regarding both oral and written skills [RQ6+1413].	

Table 92. Interview. Question 3. Teacher 5's answers

With regard to question 3, her opinions were positive from the very beginning referring to teachers' collaboration as the linchpin —[ICD+122]—. According to her, CLIL students developed and improved a plurilingual competence —[RQ6+136] and [RQ6+1413]— and did not find any difficulty in learning content through English —[RQ7+133]—.

<b>T E A C H E R  5</b>	<b>QUESTION 4 (only asked in June 2014):</b>	
	<ul style="list-style-type: none"> <li>• <b>Do you think CLIL implementation should go on? Why?</b></li> </ul>	
	<b>Excerpt June 2014</b>	<p>YES! If done well (previous training, appropriate monitoring, commitment and collaboration) it is a wonderful approach for language and content learning [TT+142] [ICD+149] [RQ3+145] [RQ6+1416] [RQ7+147].</p>

Table 93. Interview. Question 4. Teacher 5’s answers

Her answer to question 4 in 2014 revealed her positive views —[RQ3+145]— on the benefits of CLIL. Under the appropriate circumstances, i.e. previous training, monitoring, commitment and collaboration, CLIL would be a perfect approach to learn language and content —[TT+142], [ICD+149], [RQ6+1416] and [RQ7+147]—.

**Teacher 6** was a 60-year-old female teacher of English with a lot of experience in CLIL. Her role was that of being a coordinator for both groups of students in year two. As said above, in our CLIL model, a bilingual section (see section 5.3.), a subject teacher —Social Science teacher in our project— and a language specialist —an English teacher in our programme— worked together as a tandem. The English teacher’s role is that of a coordinator mentoring the subject teacher as regards integrating language through content and cognition, i.e. in adapting or adjusting language to content and cognition (see section 3.2.). These are some excerpts of teacher 5’s answers to the four questions:

<b>TEACHER 6 (English)</b>	
<b>QUESTION 1 (as posed in the different moments):</b>	
<ul style="list-style-type: none"> <li>• <b>Considering what is happening with CLIL in Galicia, which are the positive aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the positive aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>	

<b>T E A C H E R  6</b>	<b>Excerpt September 2012</b>	<p>Creo que se traballamos ben, podemos conseguir que os alumnos e alumnas acaden moitos beneficios educativos: aprendizaxe global, mellora nas linguas, etc. E nós, como profesoras, aprenderemos moito tamén, sobre todo por ter que traballar xuntas e deseñar tarefas e proxectos en común [ICD+123].</p> <p>Translation: <i>I believe that, if we work well, we can make our students attain a lot of educational benefits: global learning, improvement in the different languages, etc. We, as teachers, will learn lots of things too, because we will work together designing tasks and projects.</i></p>
	<b>Excerpt June 2013</b>	<p>Mellora nas linguas, aprendizaxe mediante enfoque global, colaboración entre os profesores...[RQ6+137] [RQ3+131] [ICD+137]</p> <p>Translation: <i>Improvement in [the three] languages, learning through a global approach, teacher collaboration...</i></p>
	<b>Excerpt June 2014</b>	<p>O deseño común, a colaboración entre as distintas linguas, as tarefas e proxectos transdisciplinares... O impacto na aprendizaxe de linguas e outras áreas é inmenso. [ICD+145] [RQ3+146] [RQ6+1414] [RQ7+146]</p> <p>Translation: <i>Common design, collaboration among the different language [teachers], cross-curricular tasks and projects...The impact on the languages and other content is huge.</i></p>

Table 94. Interview. Question 1. Teacher 6's answers

Teacher 6 identified the *sine qua non* for CLIL success at the very start: collaboration, common design, global learning —[ICD+123]—. Her views were consistent throughout the development of the programme —[ICD+137] and [ICD+145]—and, after year one and year two, she claimed students had improved not only their competence in the three languages —[RQ6+1414]— but also their content learning —[RQ7+146]—.

<b>QUESTION 2 (as asked in the different moments):</b>
<ul style="list-style-type: none"> <li>• <b>We are going to start implementing CLIL in our school. Which are the negative aspects you can see in CLIL implementation at the moment? (September 2012)</b></li> <li>• <b>After one year in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2013)</b></li> <li>• <b>After two years in CLIL, which are the negative aspects you could see in CLIL implementation? (June 2014)</b></li> </ul>

<b>T E A C H E R  6</b>	<b>Excerpt September 2012</b>	<p>A Xunta de Galicia non dá a formación necesaria [TT–122] [AS–121]. A formación debe ser tanto de lingua como pedagóxica e metodolóxica. Iniciar un proxecto deste tipo supón un esforzo enorme e depende da vontade dos profesionais.</p> <p>Translation: <i>The Xunta de Galicia does not provide the necessary training. Training must be both language-oriented and pedagogical and methodological. Starting a project like this is hard work and depends on the teachers' willingness.</i></p>
	<b>Excerpt June 2013</b>	<p>O único negativo é a nosa falta de tempo ás veces. Pero, vistos os resultados, realmente vale a pena.</p> <p>Translation: <i>The only negative thing is our lack of time sometimes. However, given the results, it is worth it.</i></p>
	<b>Excerpt June 2014</b>	<p>Debo dicir que o único que botei en falta foi o apoio da administración [AS–143], pero, canto ao programa, non houbo realmente nada negativo.</p> <p>Translation: <i>I have to say that the only thing I missed was the lack of support from the Education Department. As regards the programme, there was nothing negative.</i></p>

Table 95. Interview. Question 2. Teacher 6's answers

As regards question 2, she identified two negative points related to CLIL implementation: the lack of teacher training –[TT–122]– and the lack of support on the part of the government administration –[AS–121]–. After two years in the programme, the only negative thing she could identify was related to the lack of support on the part of the Education Department –[AS–143]–.

<b>QUESTION 3 (as asked in the different moments):</b>
<ul style="list-style-type: none"> <li>• <b>Do you think the students' communicative competence in the three languages is going to change? (September 2012)</b></li> <li>• <b>After one year in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2013)</b></li> <li>• <b>After two years in CLIL, which changes—in terms of students' communicative competence in the three languages— could you identify? (June 2014)</b></li> </ul>

<b>T E A C H E R  6</b>	<b>Excerpt September 2012</b>	<p>Isto é novo para min e teño moitos temores e dúbidas. Non sei se os resultados serán positivos ou non. Todo dependerá do noso compromiso co proxecto.</p> <p>Translation: <i>This is new for me and and have some fears and doubts. I do not know whether the results will be positive or not. Everything will be dependent on our commitment to the project.</i></p>
	<b>Excerpt June 2013</b>	<p>A formación inicial antes do proxecto [TT+132] para nós foi básica e, despois do traballo conxunto, tarefas comúns, integración das Ciencias Sociais [ICD+138], só podo dicir que a mellora da competencia comunicativa do alumnado é clarísima [RQ6+138].</p> <p>Translation: <i>The initial training prior to the project was instrumental and, after working together designing tasks and integrating Social Science, I can only say that the improvement of the students' communicative competence is evident.</i></p>
	<b>Excerpt June 2014</b>	<p>A mellora en todos os sentidos con respecto á competencia plurilingüe das alumnas e dos alumnos [RQ6+1415].</p> <p>Translation: <i>The overall improvement in the students' plurilingual competence.</i></p>

Table 96. Interview. Question 3. Teacher 6's answers

With regard to question 3 about the impact of CLIL on language learning, after her initial doubts back in 2012, her views turned really positive after year one and year two. According to her, students had undergone an overall improvement of their competence in the three languages —[RQ6+138] and [RQ6+1415]—. This overall improvement had to do with the fact that 1) participating teachers were previously trained —[TT+132]—; and 2) their methodology was based on collaboration and common design—[ICD+138]—.



<b>T E A C H E R  6</b>	<b>QUESTION 4 (only asked in June 2014):</b>	
	• <b>Do you think CLIL implementation should go on? Why?</b>	
	<b>Excerpt June 2014</b>	<p>Ben entendida e relacionando as linguas e traballando mediante proxectos que permitan o deseño común [ICD+146], CLIL é, sen dúbida, unha boa estratexia. O CLIL que se fixo e fai no nono centro é integrador e lévase a cabo por profesorado que se formou suficientemente para poder implementalo [TT+143].</p> <p><i>Translation: CLIL is a good strategy when it is well understood and its design is based on collaboration as well as related to all languages and project work. The kind of CLIL we implement in our school is inclusive and it is implemented by teachers who were trained to do so.</i></p>

Table 97. Interview. Question 4. Teacher 6’s answers

Her answer to question 4 in 2014 reiterated the same idea. In order for CLIL to be successful, teachers had to be trained —[TT+143]— and their methodology had to be based on collaboration as well as on integrating different kinds of learning through project work —[ICD+146]—.

### 7.2.2.2. Summary of results

After the description of the six teachers’ answers, the coding and analysis of those answers (see codes above) revealed the following number of occurrences, divided in positive —number on the left— and negative —number on the right—:

RQ1	RQ2	RQ3	RQ4	RQ5	RQ6	RQ7	RQ8	RQ9	ICD	TT	AS
16	0	17	38	22	49	10	0	0	43	17	01

Table 98. Occurrences in the qualitative analysis of teachers’ views

Teachers’ views did not show any occurrence in relation to research questions RQ2, RQ8 and RQ9. Those research questions were the ones related to 1) parents’ attitudes and motivations; and 2) code-switching. Nonetheless, qualitative data elicited from teachers’ answers seemed to converge into the following aspects:

1) CLIL students seemed to improve their attitudes towards language learning —[RQ1]—. This view tallies with the analysis seen in sections 7.1.1.5. and 7.1.3. Teachers' perceptions —[RQ3]— were more favourable in the course of time, as analysed in section 7.1.3.

2) According to teachers' views, students seemed to improve their competence in the three languages —[RQ4], [RQ5] and [RQ6]. These views coincide with the students' results analysed in sections 7.1.1.1. , 7.1.1.2. and 7.1.1.2.

3) Regarding content learning —[RQ7]—, a lower number of occurrences in the six participating teachers's answers showed a less clear opinion on the positive effect of CLIL on content learning. Comparing these views with results analysed in section 7.1.1.4., the number of occurrences tallies with the findings. CLIL did not seem to make any impact on CLIL students' learning of content over the two years of implementation.

4) Teachers seemed to agree on methodology and common design —[ICD]— as the basis for a successful implementation of CLIL. This tallies with the quantitative analysis on teachers' opinions dealt with in section 7.1.3. Integration as well as its impact on classroom practice were at the core of the pedagogical part in our project (see chapter 3). During the two-year CLIL programme, language interdependence between the different languages —[RQ6]— was present in the language lessons since language teachers designed together as well as language tasks were similar in the different languages.

5) Teachers' views seemed to converge into two more things which did not come up in the previous analyses. On the one hand, the need for teacher training prior to starting any CLIL programme —[TT]— and, on the other hand, the lack of support from the Education Department —[AS]—.

## CHAPTER 8: CONCLUSIONS

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In chapter 7 I reported and analysed the findings of this research study, considering three focal areas related to four research goals and nine research questions. The multifaceted nature of the research was the reason for me resorting to a mixed methods approach, drawing on several research fields and using multiple data-collection tools with a view to triangulating results.

In this chapter, I will review and group the main conclusions considering every focal area, every research goal and every research question (see section 6.3.). The chapter will also address limitations of the study along with educational implications for teachers and suggestions for future research.

### 8.1. Focal Area 1

As seen in section 6.3., focal area 1 was the triangulation-based analysis of students', families' and teachers' perceptions of language learning —related not only to both environmental and additional languages but also to CLIL implementation— through measuring students' and families' attitudes and motivations along with families' and teachers' opinions. Focal area 1 was related to research goal number one:

*Goal one: Measure stakeholders' attitudes and motivations towards language learning as well as their perceptions on CLIL on a longitudinal basis.*

Accordingly, this thesis set out to answer some research questions directly concerning the goal above. The research questions linked to focal area 1 and goal number one were RQ1, RQ2 and RQ3 (see section 6.3.). In addressing the research questions, the various analyses presented in the thesis have provided the empirical evidence that has enabled me to reach the following conclusions:

**RQ1: Does CLIL have any impact on students' attitudes and motivations towards language learning?**

As seen in section 4.1., research studies have shown that students involved in CLIL show positive views and attitudes along with higher motivation regarding the foreign language (Seikkula-Leino 2007; Merisuo-Storm 2006, 2007; Ackerl 2007; Lasagabaster 2008, 2009, 2011; Lasagabaster & Sierra 2009; Czura et al. 2009; Sierra 2011; Doiz et al. 2014; Lasagabaster & Doiz 2015). In the analyses carried out in this thesis, differences in the three measurements of both cohorts were found and results seemed to indicate that progress in the development of more positive attitudes and motivations was different in both groups. The CLIL cohort's scores were significantly higher than the non-CLIL group's. Our results seemed to tally with the ones shown in previous research literature, although in our findings the non-CLIL students also showed and developed positive attitudes and motivation, as was the case in the study carried out by Lasagabaster and Doiz (2015). This was possibly due to the pedagogical component, which was exactly the same with both cohorts. The only difference between the two groups analysed (CLIL vs. non-CLIL) was the fact that the CLIL cohort was learning Social Science through English. Nonetheless, the same methodological components were used with both groups: curriculum integration through task and project based learning, multilingual approach to language learning, use of other curricular content in the English class and the international character of projects —Erasmus-funded projects, trips abroad or eTwinning—.

Furthermore, the analysis undertaken in this research study was a longitudinal one. As regards favourable attitudes sustained in time, Lasagabaster and Doiz's (2015) study revealed results which were different from the ones in the previous literature. According to them, motivation towards the foreign language might not be sustained in the long term, and that is why the authors suggested the need for future research from a longitudinal perspective. In our longitudinal study, our findings seem to contradict that view, as they show attitudes and motivations in the CLIL group improved and were sustained over the two years of the project. With regard to the non-CLIL groups' answers, although they

showed lower scores, there also seemed to be a significant change for the better in the second year of the programme. CLIL seemed to make a positive impact on attitudes and motivation, but the fact that there was also an improvement in the non-CLIL groups' attitudes has led me to question whether it is only CLIL that makes attitudes and motivations improve or the combination of various methodological aspects, such as curriculum integration, task and project-based learning or a multilingual approach to language learning. That combination might have carried more weight in the change of attitudes and motivations, as CLIL did not directly affect the non-CLIL students. Nonetheless, these students might also have benefitted from the introduction of CLIL, which triggered a methodological change on a school level.

As regards the students' preference for a language of instruction (Galician, Spanish or English), comparing the answers of both groups, there was a clear preference of the CLIL cohort for English as a vehicular language at the start. This preference was sustained after year two. On the other hand, the non-CLIL group preferred Galician at the start. Nonetheless, after year one, their preference for English increased and was sustained after year two. This might be explained by the above-mentioned methodological change.

Concerning CLIL implementation, the CLIL cohort showed satisfaction and willingness to go on with the programme. Considering methodology, although the CLIL group showed a slightly more favourable view from the start, the truth is that all the students' perceptions on the methodology used were really positive and they improved until the very end of the project in 2014.

## **RQ2: Does CLIL have any impact on parents' attitudes and motivations towards language learning?**

Although there is plenty of research literature dealing with teachers' perceptions, there does, however, seem to be a need for research dealing with families' views and attitudes (Mehisto & Asser 2007). As seen in section 4.1., Pladevall-Ballester (2015) elicited

stakeholders' perceptions on CLIL implementation and showed that parents' perceptions were rather unrealistic as they were either too enthusiastic or showed that they were afraid that CLIL might be detrimental to the children's L1 or their content learning.

In this research study, the analysis was carried out longitudinally with two groups of parents over two years, the same as with their children. Significant differences between them were found and results seemed to indicate that progress in the development of more positive attitudes and motivations was different in both groups. The CLIL parents cohort's scores were significantly higher in every measurement and sustained in time, whereas the non-CLIL groups' answers showed lower scores and significant change only took place after year two. Parents' attitudes showed a similar evolution as the ones showed by their children (see RQ1 above).

Interestingly, the parents' attitudes in the CLIL group showed a greater preference for English over the duration of the programme and their positive attitude towards CLIL was sustained over the two years. Conversely, the parents in the non-CLIL cohort did not change their preference for Galician and their positive attitude towards CLIL slightly decreased during year two.

The parents in the CLIL cohort stated that CLIL was useful for language learning and improved their kids' motivation to learn languages. They showed their satisfaction as they all made it clear they wanted their children to go on with the CLIL programme. This tallies with their children's views, described in the conclusions related to RQ1 above.

### **RQ3: What are teachers' perceptions on CLIL implementation and results?**

Regarding the quantitative analysis, according to teachers' opinions, CLIL seemed to provide a good framework for language learning on a multilingual basis as it made a positive impact on the three languages and on their attitudes, motivations and perceptions of those languages. These views were coincidental with CLIL students' results. Nonetheless, according to the students' results in the tests, the non-CLIL cohort also

showed positive results (see conclusions related to RQ4, RQ5 and RQ6 below). Teachers' positive views on CLIL tally with some of the research reviewed in section 4.1. (Mehisto and Asser 2007; Ackerl 2007; Coonan 2007; Wiesemes 2009; Czura et al. 2009; Pladevall-Ballester 2015) and previous research carried out in the Galician context (Barreiro & San Isidro 2009; Calvo & San Isidro 2012).

As regards content-learning, by the end of the programme teachers claimed that CLIL had a positive effect. Nonetheless, their views elicited in the quantitative analysis did not match the empirical evidence elicited from the measurement of the students' knowledge in Social Science (see RQ7 below), which showed no significant change in the CLIL group over the two years. Their positive views might be explained by the fact that teachers could actually see that students learned content through English as they did through Galician. Hence their favourable comments.

Teachers' views also suggested that students' code-switching to L1 when using the foreign language reduced after two years. Teachers' views partially matched the results of the analysis of the students' code-switching (see RQ9 below). As regards previous literature (Lasagabaster 2013; Méndez & Pavón 2012; Viebrock 2012), the majority of the studies on code-switching base teachers' beliefs on code-switching on qualitative interviews or questionnaires without any reference to classroom data, and therefore may run the risk of presenting a perspective whose results do not adequately portray the complexity of the classroom code-switching context. This was the reason for me resorting to the use of classroom data through transcripts coding with a view to triangulating teachers' views with students' actual performance (see RQ9 below).

Within the realm of qualitative analysis, the studies undertaken by Mehisto and Asser (2007), Wiesemes (2009), Czura et al. (2009) reviewed in section 4.1. showed high levels of satisfaction, commitment and engagement in the stakeholders. With regard to the qualitative analysis in this thesis, teachers' views did not show any occurrence in relation

to research questions RQ2, RQ8 and RQ9, although their answers seemed to converge into the following aspects:

1) CLIL students seemed to improve their attitudes towards language learning. This view tallies with the analysis seen in sections 7.1.1.5. (see conclusions in RQ1 above). As regards previous research, our analysis of teachers' views coincides with previous research undertaken in the Galician context, reviewed in section 5.4. (Barreiro & San Isidro 2009; Calvo & San Isidro 2012).

2) According to teachers' views, students seemed to improve their competence in the three languages. These views partially coincide with the students' results analysed in sections 7.1.1.1., 7.1.1.2. and 7.1.1.2. (see conclusions related to RQ4, RQ5 and RQ6 below) along with the previous research undertaken in the Galician context, reviewed in section 5.4. (Barreiro & San Isidro 2009; Calvo & San Isidro 2012).

3) Regarding content learning, Coonan's (2007) study showed that, according to teachers' views, CLIL positively affected content learning. These positive views can also be found in the previous research carried out in the Galician context (Barreiro & San Isidro 2009; Calvo & San Isidro 2012). Our quantitative analysis seen above also matches these views. Conversely, our qualitative discussion (see section 7.2.2.1.) shed a different light as teachers' longitudinally monitored answers were slightly different from the ones shown in the quantitative analysis. Teachers showed a less clear opinion on the positive effect of CLIL on content learning. Triangulating these views with the results analysed in section 7.1.1.4. (see conclusions related to RQ7 below) showed that their mixed views tallied with the empirical findings. CLIL did not seem to make any impact on CLIL students' learning of content over the two years of implementation.

4) Concerning methodology, Infante et al. (2009) showed that teachers' views on CLIL implementation were positive on the grounds of its effectiveness and methodological advantages. In line with these views, the teachers in our project seemed to agree on



methodology and common design as the basis for a successful implementation of CLIL. This was coincidental with the results of the quantitative analysis on teachers' opinions. Integration along with its impact on classroom practice were at the core of the pedagogical part in our project. During the two-year CLIL programme, language interdependence between the different languages was present in the language lessons since 1) language teachers designed together; and 2) language tasks were similar in the different languages.

5) Teachers also seemed to agree on the need for teacher training prior to starting any CLIL programme (see chapter 3) and the lack of support from the Education Department. The need for teacher training and the lack of institutional support can be found in the previous research literature undertaken in the Galician context (Barreiro & San Isidro 2009; Calvo & San Isidro 2012). Pladevall-Ballester's (2015) study also showed the lack of support as one of the negative issues related to CLIL implementation.

## 8.2. Focal Area 2

As seen in section 6.3., focal area 2 was the analysis of students' results in the three curricular languages —Galician, Spanish and English—and in the CLIL subject —Social Science— through tests held in three different moments between 2012 and 2014. Focal area 2 was related to research goals number two and three:

*Goal 2: Gather empirical information regarding language competence in the three languages used for learning —Galician, Spanish and English— on a longitudinal basis.*

*Goal 3: Gather empirical information in relation to content learning on a longitudinal basis.*

Accordingly, this thesis set out to answer some research questions directly concerning the goals above. The research questions linked to focal area 2 and goals number two and three were RQ4, RQ5 RQ6 and RQ7. In addressing these research questions, the various

analyses presented in the thesis have provided the empirical evidence that has enabled me to reach the following conclusions:

**RQ4: Are there any significant differences between CLIL and non-CLIL students regarding foreign language learning on a longitudinal basis?**

In general terms, CLIL students tend to outperform their non-CLIL counterparts as regards foreign language learning (Dalton-Puffer 2011; Pérez Cañado 2012). The reasons for this could be 1) the fact that CLIL students' exposure to the foreign language is invariably longer than their counterparts', as they attend CLIL lessons on top of the regular foreign language class time (Merino & Lasagabaster 2015); and 2) the lack of initial matching in the samples as students usually enrol on CLIL programmes voluntarily, i.e. they are highly motivated towards language learning and their competence in the foreign language is usually higher (Pérez Cañado 2012; Pérez Cañado 2016b; Rumlich 2016). In our research study, both cohorts were initially matched (see section 7.1.1.), i.e. the two groups of students that made up the sample and took part in the tests were academically homogeneous regarding their command of English, Galician and Spanish, along with their content knowledge. Homogeneity was verified through statistical tests.

In general, the studies reviewed in section 4.2. (Zydatiβ's 2007; Ackerl 2007; Alonso et al. 2008; Gallardo del Puerto et al. 2009; Lasagabaster 2008, 2009; Ruiz de Zarobe 2010; Naves & Victori 2010) showed positive results regarding the impact of CLIL on foreign language learning. However, the analysis of the literature seemed to suggest the need for longitudinal studies stretching over longer periods of time. This view is coincidental with the current trend of researchers in Germany who claim for comprehensive longitudinal model-based evaluations as well as a perfect control of the variables when conducting research on CLIL programmes (Rumlich 2016). In our two-year longitudinal research study, students were tested three times in the three languages. With regard to results in English, the CLIL group showed a higher improvement than their non-CLIL counterparts over the two years of the project. Results seemed to confirm teachers' views on the positive effect of CLIL on student's learning of English (see conclusions in RQ3 above).

Nonetheless, the non-CLIL cohort also showed a significant overall improvement over the two years. As seen with attitudes and motivation in the conclusions related to RQ1 above, the improvement of both cohorts might be explained by the fact that the same methodology was used with them.

Results partially tally with a more recent study conducted by Merino and Lasagabaster (2015), a longitudinal research study in which CLIL students, with an initially higher average score, as expected, outperformed their counterparts. However, both groups showed a similar improvement from the first to the second test. Authors put this down to the time factor, i.e. to the fact that the study was longitudinal as distinct from the studies they analysed previously —cross-sectional—. They stated that, since CLIL success is dependent on the number of years of implementation, longitudinal studies must stretch over longer periods of time. In our time-dependent test measurements, however, both samples were initially homogeneous and, although both cohorts showed significant improvement over the two years, the CLIL group improved to a greater extent. This might be related to a bigger exposure to English in the CLIL environment.

**RQ5: Are there any significant differences between CLIL and non-CLIL students regarding L1 learning on a longitudinal basis?**

Although the effect of CLIL on L1 is under-researched (Lasagabaster & Ruiz de Zarobe 2010), the existing literature reviewed in section 4.3. seemed to indicate that, in general terms, CLIL does not have a detrimental effect. Some research studies based on teachers' perceptions agree with this view or even show more positive considerations towards CLIL impact on L1 (Barreiro & San Isidro 2009; Calvo & San Isidro 2012). However, some critical voices (Lorenzo et al. 2010) point out that some teachers view CLIL as a menace to L1.

All in all, more outcome-oriented longitudinal research is needed so as to elicit solid analyses. As a main focus of this thesis, besides measuring foreign language

performance, I analysed students' competence in Spanish and Galician —through standardised tests in three different moments. This measurement was conducted with a view to analysing the impact of CLIL on global language learning and development.

The longitudinal study conducted by Merino and Lasagabaster (2015) mentioned above measured and analysed the students' competence in English, Basque and Spanish. Regarding results in Basque, they found no detrimental effect. Despite the fears shown in previous literature (Cenoz 2009, Lasagabaster & Sierra 2009) about the possible negative effect resulting from minimising exposure to Basque, development was similar in both cohorts. Students' competence in the third language analysed —Spanish— also seemed unaffected, in line with previous literature (Admiraal et al. 2006; Serra 2007). In our study, CLIL students outperformed their non-CLIL counterparts in L1 —Galician and Spanish— and their improvement was significant regarding their overall competence in both languages after year one and year two. Nevertheless, regarding Galician, the non-CLIL group showed a partial improvement regarding the different skills. Considering the skills measured and the different moments, results were uneven:

1) Concerning Galician, the CLIL cohort showed an overall improvement after year one and year two regarding global competence, reading and writing. They attained better results in listening and speaking after the first year, but they did not show any improvement from year one to year two. Regarding the non-CLIL group, no significant changes were observed in relation to listening, writing and speaking. However, changes were found in their global competence as well as in the reading skill, but those changes happened from moment one to moment two and no significant change was observed from moment two to moment three.

3) As far as Spanish is concerned, the CLIL cohort showed an overall improvement in Spanish after year one and year two as regards global competence, reading and writing. Regarding listening and speaking, CLIL students' improvement took place from moment

two to moment three. On the other hand, regarding the non-CLIL group, no statistical significant changes were observed either on the overall competence or the different skills.

Our analysis confirmed that 1) the CLIL group's improvement in Galician and Spanish was higher than the non-CLIL cohort's; and 2) there seemed to be no negative effect resulting from minimising the exposure to Galician in the CLIL group. The point is whether results were due to CLIL implementation, which might make students more aware of how languages work given the emphasis on CALP, or to the multilingual approach to language learning, which would explain why the non-CLIL cohort also showed an improvement to some extent in Galician and no negative effect on their competence in Spanish.

Results analysed in relation to RQ4 and RQ5 led me to answer the next research question:

**RQ6: Is CLIL providing a framework for language learning on a plurilingual basis?**

Overall positive or neutral results of both cohorts in the different languages might be explained by the fact that a multilingual approach to language learning was at the core of the pedagogical part in our project (see chapter 3). During the two-year CLIL programme, language interdependence between the different languages was present in the language lessons since language teachers designed together and language tasks were similar in the different languages. Nonetheless, the CLIL cohort improved to a greater extent and this might be related to the specific CLIL component, which seemed to really make a difference. This matches teachers' opinions seen in the conclusions related to RQ3 above. According to teachers, CLIL seemed to provide a good framework for language learning on a plurilingual basis as it made a positive impact on the three languages. Triangulating their views with the empirical evidence elicited from the students' tests, results seemed to confirm the positive effect of CLIL on language learning on a plurilingual basis.

**RQ7: Are there any significant differences between CLIL and non-CLIL students regarding content learning on a longitudinal basis?**

As seen in section 4.4., considering the existing research literature related to the impact of CLIL on content learning, both outcome-oriented and opinion-elicitation studies seem to suggest that CLIL either makes no impact on the learning of subject matter (Wode 1999; Jäppinen 2006; Admiraal et al. 2006) or shows a positive effect (Stohler 2006; Serra 2007; Van de Craen et al. 2007b; Zydatiβ's 2007, 2009). The number of studies on content learning, however, seem to lag behind if we consider research on attitudes or foreign language learning. Solid longitudinal test-based research seems to be needed to be able to reach definitive conclusions. Only one study so far —Fernández-Sanjurjo et al. 2017— has shown negative results as regards content learning, possibly because the model analysed lacked the collaboration characteristic of CLIL environments, which is a *sine qua non* for CLIL success (Pavón et al. 2014), as CLIL subjects in primary education are usually taught by the language specialists to the detriment of content.

In this thesis, as regards content, the two groups of students were tested three times just as with languages. The model analysed in our research relied on initial training of the teachers involved and it was based on collaboration and common design. Furthermore, as explained in RQ4 above, both cohorts were initially matched.

Empirical evidence seemed to confirm that CLIL did not make any impact on CLIL students' learning of content over the two years of implementation. Interestingly, the reported findings related to the longitudinal intra-group analysis, showed, however, that the non-CLIL cohort did worse only between the first and the second moment, although no significant change was found between the second and the third moments. Nonetheless, no significant difference was found between the groups in the inter-group comparison.

The results might be explained by the methodological aspects once again. Given the collaboration and common design characteristic of a CLIL environment, content learning does not seem to be negatively affected.

### 8.3. Focal Area 3

As seen in section 6.3., focal area 3 was the analysis of data related to students' oral code-switching elicited from monitoring four integrated tasks between 2012 and 2014. Focal area 3 was related to research goal number four:

*Goal 4: Observe students' oral code-switching on a longitudinal basis.*

Accordingly, this thesis set out to answer two research questions directly concerning the goal above. The research questions linked to focal area 3 and goal number four were RQ8 and RQ9 (see section 6.3.). In addressing these research questions, the various analyses presented in the thesis have provided the empirical evidence that has enabled me to reach the following conclusions:

#### **RQ8: When does code-switching in CLIL students' talk occur and what is its role?**

The monitoring of tasks and analysis of code-switching in this thesis were carried out 1) to gain a deeper insight into the students' use of the different languages involved in the project; and 2) to contrast the teachers' opinions on code-switching described in section 7.1.3.1. and in the conclusions related to RQ3 above. Our project was not only about CLIL, but also about a multilingual approach to language learning in which one of the primary goals was to improve and develop the students' plurilingual competence.

According to Gierlinger (2015), the majority of the studies on code-switching base teachers' beliefs on code-switching on qualitative interviews or questionnaires without any reference to classroom data (Lasagabaster 2013; Méndez & Pavón 2012; Viebrock 2012), and therefore may run the risk of presenting a picture whose results do not adequately portray the complexity of the classroom code-switching context. This was the reason for me resorting to the use of classroom data through the coding of transcripts with a view to triangulating teachers' views with students' actual performance (see RQ9 below).

Code-switching to L1 occurred mostly from English to Galician. As explained in section 6.4.1., 95% of students used Galician as an L1 both in the educational environment as well as with family and friends. Transcription, coding and analysis of students' oral language in the classroom made it possible to identify six different categories or roles of the students' switches to L1: equivalence, reiteration, monitor, side comments, alignment and intersentential code-switching.

**RQ9: Are there any significant differences between CLIL and non-CLIL students as regards code-switching?**

As seen in section 2.1.2., research seems to support the view that bilingualism positively influences mechanisms of cognition in terms of mental flexibility (Colzato et al. 2008; Prior & MacWhinney 2010), executive control (Costa et al. 2008) and creativity (Hakuta & Bialystok 1994; Adesope et al. 2010), on the grounds of the bilinguals' metalinguistic ability and their capacity for code-switching (Bialystok 2001, 2007, 2012). This has been something really relevant for our study. The students that took part in our research were bilingual (Spanish-Galician) and the methodology used required the use of different learning skills, problem-solving, understanding of things from different cultural perspectives and development of higher order thinking skills. The class dynamics used set the suitable context for code-switching to take place.

Teachers' views described in the conclusions related to RQ3 above suggested that CLIL students' code-switching to L1 when using the foreign language reduced after two years. Teachers' views partially matched the results of the qualitative analysis of the students' code-switching.

As regards CLIL students, there seemed to be a decrease in the number of occurrences related to the following categories: equivalence, reiteration, side comments and intersentential code-switching. This tallies with teachers' opinions above. Nonetheless, in the findings reported, there seemed to be a tendency for CLIL students to increase their



switches in two categories: monitor and alignment. CLIL students' self-editing and role-assigning might be related to their being more aware of and more focused on academic language —CALP— than their non-CLIL counterparts. This matches the conclusion in RQ3 about CLIL students possibly being more aware of how languages work due to the emphasis on CALP. It could be hypothesised that their more developed CALP helped to improve the CLIL students' metalinguistic awareness, which fostered their becoming more aware of their own mistakes. As a result of this, CLIL students strengthened their mechanism for controlling speech errors (Krashen 1981; Selinkier & Gass 2001) and this led them to be more prone to using post-articulatory editing or self-monitoring (Riehl 2005), which occurs when the speakers become aware that they have used the wrong expression and then correct or ask for help.

Interestingly, the non-CLIL students reduced the number of switches to Galician by the end of the programme in three of the categories: equivalence, monitor and side comments. The multilingual and integrated approach might have contributed to this, although not to the same extent as with the CLIL students. No change was identified regarding alignment and a slight increase seemed to take place regarding reiteration and intersentential code-switching.

Despite the differences between the two types of students, code-switching seemed to be a natural part of the language learning process over the two years as it offered an authentic communication resource which was instrumental in developing the students' plurilingual competence (Pérez-Vidal 2002; Redinger 2010; Levine 2011; Gil et al. 2012; Gierlinger 2015).

#### **8.4. Limitations of the study**

This study is based on a relatively small sample of teachers (N=6), parents (N=44) and students (N=44 for focal areas 1 and 2, and N=10 for focal area 3) and this would be its main limitation if the goal was to generalise conclusions. Nonetheless, this thesis aimed to gain a deep insight into the effects of a language policy and the implementation of a CLIL

model on a particular educational context. The questionnaire, interview, test and task-based data elicited from the different stakeholders along with the corpus collected and transcribed have allowed me to draw an in-depth picture. The longitudinal mixed methods research used has made it possible to gain a better understanding of the reality of the classroom, the everyday teaching and learning experiences along with the support from the colleagues taking part in the project. It has been based on a small sample, but the multifaceted analysis has allowed me to validate the participating stakeholders' results, voice and views.

At this stage, I would like to quote Ushioda (2009: 216) who points out that '*we need to understand second language learners as people, and as people who are necessarily located in particular cultural and historical contexts*'. Studies based on large numbers of participants and complex statistical analyses are very much welcomed, but small scale studies like mine help to provide an in-depth knowledge that is not so easily achieved in large-scale research. With this in mind, my objective was to rely on a multi-method analysis of CLIL in a particular '*context from multiple angles and multiple participant perspectives*' (Ushioda, 2009: 225), in the belief that this will help to shed light on the main features that potentially successful CLIL programmes should include, offer and share.

## **8.5. Educational and pedagogical implications**

When teachers enrol on a CLIL programme, the question of integration between content and learning makes an impact on their pedagogical practice. Integration is not a matter of straightforward conceptions and distinctions but a complex multifaceted web of influences and connections between different subjects, topics, languages, tasks and projects. And it is precisely because of its complexity that integration has implications at different levels of educational practice: teacher training and curriculum planning, stakeholders' perspectives and, most importantly, classroom practices.

The findings and conclusions reported in this thesis regarding languages, content learning and perceptions, attitudes and motivations have shed some light on 1) the above-

mentioned relationship between CLIL and curriculum integration; and 2) the connection existing between teacher training, collaborative methodology and implementation. The research related to this thesis has demonstrated 1) that integration-based classroom practices make a massive impact on how teachers work and how students learn, and 2) that such integration should be a key feature of any CLIL programme that intends to lead to effective teaching, high standards and successful learning. Three main implications have been identified.

The first implication refers to the necessary teacher training prior to starting any CLIL programme along with decisions that need to be made on which subjects will be integrated, on which aims, and also on which tools the teachers will need in order to plan integrated teaching and assessment. The teachers participating in this study recurrently demanded that the Department of Education should show a greater commitment and consistently support CLIL experiences. If CLIL programmes are to succeed, the administration's underpinning becomes a must.

The second implication highlights the importance of how the implementation of any plan is dependent on the different participants' perceptions and beliefs. CLIL is about breaking down the traditional conception of compartmentalised education, and it makes stakeholders aware of different approaches to education across the whole curriculum framework (Coyle 2010). Teachers, students and families taking part in this research study changed their views and beliefs on language and content teaching and learning over the two years of the project.

Regarding classroom practices, multilingual collaborative and integration-based teaching processes clearly involve varied opportunities to address content and language learning and make learning sustainable in time. More knowledge is needed about such processes to properly understand integration as well as implement it in pedagogical practice. This third implication is inextricably connected to the nature of this thesis. Curriculum integration in our project was naturally linked to some pedagogical fundamentals related to

the way students learn languages and contents: task-based and project-based learning (Sierra 2016), communicative teaching, a multilingual approach, collaboration and interaction-based scenarios.

## 8.6. Further research

The various findings presented in this thesis substantiate the argument that CLIL, as regards the context analysed, seemed to make a positive impact:

- ◆ on the different stakeholders' long-term attitudes, motivations and views;
- ◆ and on the students' competence in the three curricular languages.

In the following paragraphs, some suggestions for further research in relation to the multifaceted focus of this thesis are included:

- ◆ Research studies have shown that CLIL makes a positive impact on students' attitudes and motivation regarding the foreign language (Seikkula-Leino 2007; Merisuo-Storm 2006, 2007; Ackerl 2007; Lasagabaster 2008, 2009, 2011; Lasagabaster & Sierra 2009; Czura et al. 2009; Sierra 2011; Doiz et al. 2014; Lasagabaster & Doiz 2015). The results reported in this thesis tally with that view, although in our findings the non-CLIL students also showed and developed positive attitudes and motivation. This has led me to question whether it is only CLIL that makes attitudes and motivations improve or the combination of various methodological aspects, such as curriculum integration, task and project-based learning or a multilingual approach to language learning. Future research should address the methodological component on a longitudinal basis so as to analyse the impact of pedagogy on CLIL results.
- ◆ As regards students' attitudes and motivations towards L1, I disregarded Galician in the students' questionnaire as 95% of the students used it as a first language in every context, thus assuming that their attitudes were positive, as were the ones showed by their families in the measurement explained in section 7.1.2.1. I did not focus on Spanish

either as it is a majority language which, in general, sports a prestigious social status (Hermida 2001; Loureiro-Rodríguez 2007; Loureiro-Rodríguez et al. 2013; Nandi 2016a, 2016b). Nonetheless, according to the opinions of the participating teachers, CLIL seemed to have a positive effect as the multilingual approach to learning made the students develop positive attitudes and a higher degree of motivation towards English, Galician and Spanish. Our research context was a Galician-speaking one and the fact that its curricular presence was minimised due to CLIL implementation did not show any impact on the students' results. Conversely, considering the Galician region and provision, the diglossic use of Galician makes it advisable for future research to focus on the effects of CLIL on attitudes and motivations towards Galician in Spanish-speaking contexts with a view to providing solid analysis on the impact of the language policy now in force on the use of Galician.

- ◆ In our longitudinal study, attitudes and motivation were sustained in the long term. Results are different from the findings reported by Lasagabaster and Doiz (2015), although my findings are not generalisable due to the limitations of the study. Sustainability of attitudes and motivation in the long-term has been under-researched and there seems to be a need for future research from a longitudinal mixed methods perspective.
- ◆ In this dissertation, I also analysed families' attitudes and motivations as well as families' and teachers' views and perceptions with a view to triangulating results and gaining a deeper insight into the context researched. Although there is plenty of literature dealing with teachers' perceptions, there does, however, seem to be a need for research dealing with families' views and attitudes.
- ◆ Overall positive results of both cohorts in the different languages might be related to the fact that integration as well as its impact on classroom practice were at the core of the pedagogical part in our project. During the two-year CLIL programme, language interdependence between the different languages was present in the language lessons

since language teachers designed together and language tasks were similar in the different languages. Nonetheless, the CLIL cohort showed better results all the way through and this might be due to the specific CLIL component. As said above, future research should address the methodological component on a longitudinal basis so as to analyse the impact of pedagogy on CLIL results. Furthermore, additional studies are needed for a better understanding of CLIL and its impact on academic language and the expression of knowledge.

- ◆ With regard to content learning, although CLIL students seemed to outperform their non-CLIL counterparts, there did not seem to exist any impact of CLIL on students' learning of content over the two years of implementation. The number of studies on content learning seem to lag behind if we consider research on attitudes or foreign language learning. Solid longitudinal test-based research seems to be needed in order to reach definitive conclusions (Pérez Cañado 2012; Rumlich 2016).
  
- ◆ As to code-switching, in the findings reported in this thesis, there seemed to be a tendency for CLIL students to increase their switches in two categories: monitor and alignment. The almost non-existent research literature on students' code-switching through the use of classroom data makes it clear that it must be a niche research should fill. Analysing how and how much CLIL students resort to code-switching might be a variable researchers should make use of in order to gain a deeper insight into the effects of CLIL on language learning and development.

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# APPENDIX A

## ENGLISH TEST SAMPLES

*Test 1*

**PAPER 1 READING AND WRITING** (1 hour 10 minutes)

**PART 1**  
**QUESTIONS 1–5**  
 Which notice (A–H) says this (1–5)?  
 For questions 1–5, mark the correct letter A–H on the answer sheet.

EXAMPLE	ANSWER
0 This is broken.	C

- Children pay less than adults here.
- Be careful because this will burn.
- We don't want any money yet.
- Things are cheaper here.
- You must pay with cash.

- SUMMER SALE  
LOW PRICES IN ALL  
DEPARTMENTS
- FIRE DOOR  
KEEP CLOSED
- LIFT NOT WORKING
- TOY SHOP NOW OPEN
- BUY NOW  
PAY NEXT YEAR!
- Keep this nightdress  
away from fire!
- We do not take cheques  
or credit cards.
- Under 12s  
HALF PRICE

**PART 2**  
**QUESTIONS 6–10**  
 Read the sentences (6–10) about going to the zoo.  
 Choose the best word (A, B or C) for each space.  
 For questions 6–10, mark A, B or C on the answer sheet.

EXAMPLE	ANSWER
0 On Sunday, Tim _____ up early because he was going to the zoo.	B
A stood      B woke      C went	

- He put some biscuits and an apple in a bag for his \_\_\_\_\_ .  
A meat      B lunch      C dish
- He took a bus to the zoo and got off outside the \_\_\_\_\_ entrance.  
A high      B important      C main
- He \_\_\_\_\_ at the monkeys eating some bananas.  
A enjoyed      B watched      C laughed
- The lions were sleeping under a tree because it was very \_\_\_\_\_ .  
A hot      B tired      C full
- Tim \_\_\_\_\_ some photos of the elephants.  
A put      B took      C made

**PART 3**  
**QUESTIONS 11–15**  
 Complete the five conversations.  
 For questions 11–15, mark A, B or C on the answer sheet.

EXAMPLE	ANSWER
<p>How are you?</p> <p>A I'm 18. B I'm Peter. C I'm fine.</p>	C

- John's broken this plate.  
A That's very good.  
B Here you are.  
C It doesn't matter.
- Is this your watch?  
A It's three o'clock.  
B I think it's Dave's.  
C I'm sorry I'm late.
- Can I have a sandwich?  
A Yes, of course.  
B Yes, it is.  
C Yes, that's right.
- How many people were in the café?  
A Not much.  
B A few.  
C A little.
- We're from London.  
A Not at all.  
B Yes, please.  
C How interesting.

**QUESTIONS 16–20**  
 Complete the conversation about a flat.  
 What does Ben say to Ann?  
 For questions 16–20, mark the correct letter A–H on the answer sheet.

EXAMPLE	ANSWER
Ann: 279616, Ann Beaton speaking.	
Ben: 0 _____	D

Ann: Oh yes, in the Evening Post?	A How many bedrooms does it have?
Ben: 16 _____	B That's right. How much is it?
Ann: £300 a month.	C OK. Can I come and see it?
Ben: 17 _____	D Hello, I'm phoning about your advertisement for a flat.
Ann: Two, both of them with double beds.	E Is there a bus stop near the flat?
Ben: 18 _____	F Does it have a garden?
Ann: Yes. It's quite small, but there are some nice plants in it.	G How many beds are there?
Ben: 19 _____	H And is there a garage?
Ann: I'm afraid not, but you can park outside on the street.	
Ben: 20 _____	
Ann: Of course – is tomorrow all right? At about 10 a.m.?	
Ben: Yes, that'll be fine. So I'll see you tomorrow. Goodbye.	

**PART 4**  
**QUESTIONS 21–27**

Read the article about some birds.  
 Are sentences 21–27 'Right' (A) or 'Wrong' (B)?  
 If there is not enough information to answer 'Right' (A) or 'Wrong' (B), choose 'Doesn't say' (C).  
 For questions 21–27, mark A, B or C on the answer sheet.


**CANADA GEESE**

Canada Geese are large blue and white birds. When autumn arrives, they have to fly south where the weather is warmer. The winters are so cold in Canada that the birds die if they stay there.

Last spring, Bill Lishman found sixteen young Canada Geese on his farm. They had lost their parents. Bill thought, 'These young birds won't know what to do in the autumn.'

Bill had a small plane and he decided to teach the birds to follow him. All through the summer, he went on short trips in his plane and the young geese flew after him.

When the cold weather arrived in autumn, Bill flew to Virginia in the United States, 600



miles south of his home in Canada. The geese followed him all the way. Bill left the geese in Virginia and he returned home.

This spring, Bill was waiting for the birds to come back. They didn't arrive, so Bill flew to Virginia to get them. He looked for them for two weeks but he couldn't find them.

When he arrived back home, Bill found the geese waiting for him. They had found their way home without him!

EXAMPLE	ANSWER
0 Winters in Canada are too cold for Canada Geese.	<b>A</b>
A Right B Wrong C Doesn't say	
21 Bill Lishman is a farmer.	
A Right B Wrong C Doesn't say	
22 Bill lives with his parents.	
A Right B Wrong C Doesn't say	
23 Bill carried the geese in his plane.	
A Right B Wrong C Doesn't say	
24 This was Bill's first visit to Virginia.	
A Right B Wrong C Doesn't say	
25 Bill wanted the geese to stay at his home for the winter.	
A Right B Wrong C Doesn't say	
26 Bill stayed in Virginia all winter.	
A Right B Wrong C Doesn't say	
27 The geese returned to Canada in the spring.	
A Right B Wrong C Doesn't say	

**PART 5**  
**QUESTIONS 28–35**


Read the article about bicycles.  
 Choose the best word (A, B or C) for each space (28–35).  
 For questions 28–35, mark A, B or C on the answer sheet.

**BICYCLES**

The bicycle is .....**0**..... cheap and clean way to travel. The first bicycle .....**28**..... made about one hundred and fifty years ago.

At first, bicycles were expensive. Only rich people .....**29**..... buy one. These early bicycles looked very different from the ones we have today. Later, .....**30**..... bicycles became cheaper, many people .....**31**..... one. People started riding bicycles to work and in .....**32**..... free time.

Today, people use cars more than bicycles; cars are much .....**33**..... and you don't get wet when it rains! But some people .....**34**..... prefer to cycle to work. They say that .....**35**..... are too many cars in town centres and you can't find anywhere to park!



EXAMPLE	ANSWER
0 A some B any C a	<b>C</b>
28 A was B is C were	
29 A must B could C may	
30 A when B if C that	
31 A buy B buys C bought	
32 A their B his C its	
33 A fast B faster C fastest	
34 A yet B still C already	
35 A they B there C here	

**PART 6**  
**QUESTIONS 36–40**

Read the descriptions (36–40) of some people in a family.  
 What is the word for each description?  
 The first letter is already there. There is one space for each other letter in the word.  
 For questions 36–40, write the words on the answer sheet.

EXAMPLE	ANSWER
0 If your child is a boy, he is this.	<b>6 0 11</b>
36 This is your mother's brother.	u _ _ _ _ _
37 She is your father's mother.	g _ _ _ _ _ _ _ _ _
38 This is the person a man is married to.	w _ _ _ _
39 This is your father's sister.	a _ _ _ _
40 If your child is a girl, she is this.	d _ _ _ _ _ _ _ _



**PART 7**

**QUESTIONS 41–50**

Complete these letters.

Write ONE word for each space (41–50).

For questions 41–50, write your words on the answer sheet.

Dear Sir,

I (Example: read) your advertisement for English courses 41 the newspaper. I would 42 to have some more information. How 43 does a course cost? Also, 44 long is each course and when does the next course start?

Yours,

**Maria Gonzalez**

Dear Ms. Gonzalez,

Thank 45 for your letter. Our next course starts in three weeks, 46 Monday, 9 May. This is a 6-week course and it 47 £150. If you prefer 48 begin in June, we have 49 10-week course for £200. I hope 50 is the information you want.

Yours,

**David May**

**PART 8**

**QUESTIONS 51–55**

Read the note from a student who wants a book from a library.

Fill in the information on the Reservation Form.

For questions 51–55, write the information on the answer sheet.

Rose Cottage  
Northfleet  
26 March

To: Weston University Library

My teacher, Robin Gibson, has told me to read *Understanding Science* before my exam on 17th April. I am on holiday in Northfleet at the moment but I'll return to my home at 22 King's Road, Weston on 9th April. I'd like to get the book the next day and keep it for one week. It's by S J Renshaw. Thank you.

Mary Jones

**Weston University Library**  
Reservation Form

Name of book: Understanding Science

Name of writer: 51

When do you want the book? 52

For how long? 53

Student's name: 54

Student's address: 55

**PART 9**

**QUESTION 56**

Your friend has asked you to go swimming tomorrow evening. You can't go. Write a note to your friend.

Say:

- why you can't go
- when and where you can meet your friend on another day.

Write 25–35 words.  
Write your note on the answer sheet.

**PAPER 2 LISTENING** (approximately 30 minutes including 8 minutes transfer time)

**PART 1**

**QUESTIONS 1–5**


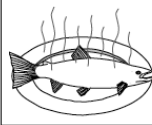

You will hear five short conversations.  
You will hear each conversation twice.  
There is one question for each conversation.  
For questions 1–5, put a tick  under the right answer.

**EXAMPLE**

0 How many people were at the meeting?

3                       13                       30  
**A**                       **B**                       **C**




1 What will they eat for dinner this evening?



  
**A**                       **B**                       **C**

2 What time is it?

2:10                       2:20                       2:30  
**A**                       **B**                       **C**

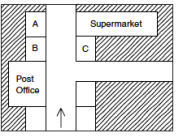
3 What's Michelle going to read?



  
**A**                       **B**                       **C**

4 How much did the tickets cost?

\$19                       \$90                       \$99  
**A**                       **B**                       **C**

5 Where is the chemist's?

  
**A**                       **B**                       **C**

**PART 2**  
**QUESTIONS 6–10**  
 Listen to Kate telling Emma about her family.  
 Where is each person going today?  
 For questions 6–10, write a letter A–H next to each person.  
 You will hear the conversation twice.

EXAMPLE	ANSWER
0 Sam	<b>B</b>

PEOPLE	PLACES
6 Kate's mother <input type="checkbox"/>	A concert
7 Tanya <input type="checkbox"/>	B dentist's
8 Len <input type="checkbox"/>	C driving school
9 Tom <input type="checkbox"/>	D golf club
10 Kate's father <input type="checkbox"/>	E hairdresser's
	F shops
	G Spanish class
	H tennis club

**PART 3**  
**QUESTIONS 11–15**  
 Listen to a woman talking to a policeman.  
 For questions 11–15, tick  A, B or C.  
 You will hear the conversation twice.

EXAMPLE	ANSWER
0 Where did the woman lose her bag?	A in town <input checked="" type="checkbox"/> B on the bus <input type="checkbox"/> C at home <input type="checkbox"/>
11 How much money was in the bag?	A £20 <input type="checkbox"/> B £40 <input type="checkbox"/> C £50 <input type="checkbox"/>
12 What else was in the bag?	A credit card <input type="checkbox"/> B driving licence <input type="checkbox"/> C gloves <input type="checkbox"/>
13 The bag was	A old. <input type="checkbox"/> B expensive. <input type="checkbox"/> C big. <input type="checkbox"/>
14 What time did the woman lose the bag?	A 9.30 <input type="checkbox"/> B 10.00 <input type="checkbox"/> C 10.30 <input type="checkbox"/>
15 The policeman will telephone her in the	A morning. <input type="checkbox"/> B afternoon. <input type="checkbox"/> C evening. <input type="checkbox"/>


Part 2 3 - 4 minutes (Prompt card activity)

Prompt cards are used to stimulate questions and answers of a non-personal kind. The interlocutor reads out instructions and gives a question card to one candidate and an answer card to the other. After the candidates have asked and answered questions, they change roles, as in the example below.

**Example**

The interlocutor reads out these instructions and gives a question card to Candidate B and an answer card to Candidate A.

*Candidate A, here is some information about a museum.  
 Candidate B, you don't know anything about the museum,  
 so ask A some questions about it. Now B, ask A your questions  
 about the museum and A, you answer them.*


Candidate A - your answers.	Candidate B - your questions.
<div style="border: 1px solid black; padding: 5px;"> <p align="center"><b>SANDON AIR MUSEUM</b></p>  <p>More than 70 aeroplanes to look at  <b>OPEN DAILY 10 am – 6 pm</b>                      Shop with books and postcards                      Large free car park</p> <p>Tickets: Adults £8.00                      Students £5.00</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p align="center"><b>MUSEUM</b></p> <ul style="list-style-type: none"> <li>• what / see?</li> <li>• open / weekends?</li> <li>• student ticket? E ?</li> <li>• car park?</li> <li>• buy / postcard?</li> </ul> </div>

There is a variety of acceptable questions which may be produced using this material. For example:

- What can I see at the museum?
- Is it open at the weekend?
- How much is a student ticket?
- Is there a car park?
- Can I buy a postcard there?

The examiner will stop the interaction after 4 or 5 questions have been asked and answered. A different set of prompt cards is then given out, so that Candidate A has the opportunity to ask questions and Candidate B to answer them. In this example, the questions are about a library.

*Candidate B, here is some information about a bookshop.  
 Candidate A, you don't know anything about the bookshop,  
 so ask B some questions about it. Now A, ask B your questions  
 about the bookshop and B, you answer them.*

Candidate B - your answers.	Candidate A - your questions.
<div style="border: 1px solid black; padding: 5px;"> <p align="center"><b>WORLD BOOKS</b>                      212 Main Street</p>  <p align="center"><b>Largest bookshop in the country</b>  <i>Get your travel books here</i></p> <p>Monday – Saturday 10.00 am – 8.00 pm                      Sunday 12.30 pm – 8.00 pm</p> <p align="center">Tel: 724 399</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p align="center"><b>BOOKSHOP</b></p> <ul style="list-style-type: none"> <li>• address ?</li> <li>• big / small ?</li> <li>• closed / Sundays ?</li> <li>• sell / travel books ?</li> <li>• telephone number ?</li> </ul> </div>

# GALICIAN TEST SAMPLES

**Galego**

**Comprensión oral**

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**Puntuación e duración:**

			NON ESCRIBIR Uso exclusivo para a corrección
Tarefa 1	Aprox. 8 minutos	5 puntos	
Tarefa 2	Aprox. 6 minutos	7 puntos	
Tarefa 3	Aprox. 8 minutos	6 puntos	
Tarefa 4	Aprox. 9 minutos	7 puntos	
<b>TOTAL</b>		<b>TOTAL</b>	
máx. 35 MINUTOS		25 PUNTOS	..... /25


**Materials ou instrumentos que se poden empregar durante a proba:**

- Bolígrafo con tinta negra ou azul.

**Advertencias para a persoa candidata:**

- Os teléfonos móbiles deben permanecer apagados durante a proba.
- Non se avaliará ningunha tarefa escrita con lapis ou emendada con líquidos ou cintas correctoras.
- Anularanse as respostas nas que se marque máis dunha opción, sempre que non se indique con suficiente claridade que se trata dun erro.
- En caso de erro, as persoas candidatas marcarán a nova resposta cun X rodeado por un círculo (X).
- Anularanse as respostas que non sexan claras e/ou lexibles e que non estean dentro dos espazos habilitados para isto.
- Deberá asinar a entrega desta proba no documento habilitado para tal fin.
- Non se poderá abandonar a aula ata que remate a proba.

**TAREFA 1** (...../5)



Vostede acaba de recibir a publicidade dunha axencia de viaxes con distintas ofertas. Decide ver o programa *Galegos no mundo* para preparar o itinerario e coñecer algo máis sobre os diferentes destinos.

Lea os enunciados e escoite atentamente os documentos sonoros.

Escriba na táboa de respostas, en maiúsculas, a letra do enunciado que se corresponda con cada documento sonoro, como no exemplo 0.

Cada documento sonoro correspóndese cun só enunciado. Dous enunciados non se corresponden con documento sonoro ningún.

As respostas deben basearse unicamente na información contida nos documentos sonoros.

A partir deste momento teñen 30 segundos para leren as preguntas.


**ENUNCIADOS**

A.	Cidade burocrática e con fama de monótona
B.	Cidade de fábula cun contorno hospitalario
C.	Cidade na marxe dun río e cunha antiga arquitectura
D.	Cidade que aglutina culturas e une continentes
E.	Cidade que combina paraísos naturais e fiscais
F.	Cidade que separa continentes e une mares
G.	Cidade situada entre o océano e o deserto
H.	Cidade que une o mundo cultural árabe e o occidental

**TABO DE RESPONSTAS**

N.º DO DOCUMENTO SONORO	Ex. 0	1	2	3	4	5
LETRA DO ENUNCIADO	A					
NON ESCRIBIR Espazo para a corrección	√					

**TAREFA 2** (...../7)



O transporte metropolitano pretende servir para que a cidadanía galega dispoña dun mellor servizo e ser unha alternativa competitiva e eficiente ao transporte privado. Deseguido vai escoitar as principais liñas deste plan.

Lea os enunciados e escoite atentamente o documento sonoro.


Escriba na táboa a resposta correcta en cada caso, como no exemplo 0.

Marque cunha cruz o plan que se corresponda coas seguintes afirmacións.


As respostas deben basearse unicamente na información contida nos documentos sonoros.

A partir deste momento teñen 30 segundos para leren as preguntas.

**TABO DE RESPONSTAS**

	<i>Programas de integración</i>	<i>Programas de incremento e información</i>	<i>Tarxetas de transporte</i>
<b>Fomentar o uso do transporte público</b>			<b>X</b>
Aumento no número de paradas			
Conexión entre as distintas redes			
Creación dos bonos sociais			
Establecemento de novos servizos			
Transbordos de balde			
Melloras nos distintos medios			
Tarifas en función dos saltos			

**TAREFA 3** (...../6)



Un soldado galego, ferido no enfrontamento coas tropas de Napoleón, agoniza nun hospital e aproveita para repasar a súa vida.

Lea os enunciados e escoite atentamente o documento sonoro.

Indique, na táboa de respostas, se os enunciados son verdadeiros ou falsos, marcando a opción correcta cunha cruz, como no exemplo 0.


As respostas deben basearse unicamente na información contida no documento sonoro.

A partir deste momento teñen 30 segundos para leren as preguntas.

**TABO DE RESPONSTAS**

A través da historia do soldado, sabemos que....	V	F	Uso exclusivo para a corrección
0. A súa aldea tiña poucas casas e unha palleira.	X		√
1. O seu pai fora labrego, albanel e mariñeiro.			
2. O seu pai botara unha década sen vir pola casa.			
3. O nordés que sacode os barcos tamén tirou o pai do tellado.			
4. Cando morreu seu pai súa nai aínda vivía.			
5. Uniuse coa súa moza de sempre e nunca lle foi infiel.			
6. Casou un día de sol coincidindo coa sementeira.			

**TAREFA 4** (.....7)



Ben se sabe que somos o que comemos, a nosa saúde e benestar van depender en gran medida da nosa alimentación. Deseguido, vai escoitar unhas reflexións moi interesantes sobre esta cuestión.

Lea os enunciados e escoite atentamente o documento sonoro.

Marque na táboa de respostas a opción correcta (a, b ou c) en cada caso, como no exemplo 0.

As respostas deben basearse unicamente na información contida no documento sonoro.


A partir deste momento teñen 30 segundos para leren as preguntas.

**TÁBOA DE RESPÓSTAS**

<b>0.</b>	<b>Na primeira etapa da vida, resulta decisivo...</b>	Uso exclusivo para a corrección
<input type="checkbox"/> a)	un exceso de graxa ao parir.	
<input checked="" type="checkbox"/> b)	un peso baixo no nacemento.	✓
<input type="checkbox"/> c)	un peso excesivo na xestación.	
<b>1.</b>	<b>En Occidente, existen moitos/as nenos/as...</b>	Uso exclusivo para a corrección
<input type="checkbox"/> a)	cun desequilibrio nutricional.	
<input type="checkbox"/> b)	que morren de desnutrición.	
<input type="checkbox"/> c)	que viven en zonas deprimidas.	
<b>2.</b>	<b>As novas xeracións sofren dun...</b>	Uso exclusivo para a corrección
<input type="checkbox"/> a)	aumento de realidades virtuais.	
<input type="checkbox"/> b)	exceso de sedentarismo.	
<input type="checkbox"/> c)	grave trastorno nutricional.	

<b>3.</b>	<b>A obesidade pode converterse nun...</b>	Uso exclusivo para a corrección
<input type="checkbox"/> a)	asunto estético.	
<input type="checkbox"/> b)	desequilibrio emocional.	
<input type="checkbox"/> c)	problema hormonal.	
<b>4.</b>	<b>Segundo os expertos, é aconsellable...</b>	Uso exclusivo para a corrección
<input type="checkbox"/> a)	a dieta atlántica.	
<input type="checkbox"/> b)	a dieta mediterránea.	
<input type="checkbox"/> c)	unha fusión de ambas.	
<b>5.</b>	<b>Na base da pirámide nutricional deben estar...</b>	Uso exclusivo para a corrección
<input type="checkbox"/> a)	as actividades físicas.	
<input type="checkbox"/> b)	as carnes e as aves.	
<input type="checkbox"/> c)	os peixes e mariscos.	
<b>6.</b>	<b>As persoas con rendas baixas adoitan consumir máis...</b>	Uso exclusivo para a corrección
<input type="checkbox"/> a)	froita e verduras de tempada.	
<input type="checkbox"/> b)	pan branco e doces.	
<input type="checkbox"/> c)	produtos do mar frescos.	
<b>7.</b>	<b>As últimos estudos van dirixidos...</b>	Uso exclusivo para a corrección
<input type="checkbox"/> a)	á investigación xenética.	
<input type="checkbox"/> b)	aos síntomas clínicos.	
<input type="checkbox"/> c)	ás alerxias alimentarias.	

**TAREFA 1** (.....5)



Vostede cre que o número de medios de comunicación en galego é insuficiente, mais de pouco serve que nos queixemos desta carencia se non apoiámos os que se publican actualmente. Por iso, ao atopar este artigo sobre revistas galegas, leo con atención.

Lea atentamente os seguintes textos e enunciados. Escriba na táboa de respostas, en **maiúsculas**, a letra do texto que se corresponda co enunciado correcto, como no exemplo 0.

As respostas deben basearse unicamente na información contida nos textos.

**A.**  
É unha revista de información e promoción da música galega que se distribúe de xeito gratuito nos locais da Rede Galega de Música ao Vivo. Tamén se pode descargar desde a rede. Editada pola Axencia Galega das Industrias Culturais, ten unha tiraxe de 9000 exemplares.  
*Fonte: www.converxencia.org*

**B.**  
Trátase dunha revista xuvenil de historia publicada pola Xunta de Galicia quincenalmente. Distribúese en centros de ensino públicos e co xornal El Correo Gallego. A súa tiraxe é de 30.000 exemplares e pódese tamén descargar directamente desde a rede.  
*Fonte: www.converxencia.org*

**C.**  
É unha publicación en galego dedicada ao mundo das motos, onde teñen cabida todo tipo de información relacionada co motocrós, o trial ou as carreiras de velocidade en circuito. As competicións e concentracións destes vehículos teñen especial relevancia.  
*Fonte: www.converxencia.org*

**D.**  
É unha revista de información e promoción das actividades da Rede Galega de Teatros e Auditorios e da Rede Galega de Salas, que se distribúe de balde en espazos escénicos galegos. Editada pola Axencia Galega das Industrias Culturais, pódese descargar de balde desde a rede. Ten unha tiraxe de 9000 exemplares.  
*Fonte: www.converxencia.org*

**E.**  
É unha revista de humor gráfico bimensual que se vende exclusivamente nos quioscos. Cada número está dedicado a un tema (feísmo, cidade da cultura, tren de alta velocidade...), pero tamén conta con seccións fixas. Nas súas páxinas debuxan autores da altura de Xaquín Marín ou Pinto e Chinto, entre outros.  
*Fonte: www.converxencia.org*

**F.**  
É unha publicación mensual que tenta reflectir a realidade do motor, tanto da competición como do sector comercial de Galicia. Naceu da man dun grupo de xornalistas afeccionados convencidos da necesidade de ter un medio en galego que recollese contidos que xeralmente non eran divulgados por outras revistas e xornais.  
*Fonte: www.converxencia.org*

**G.**  
É unha revista editada pola asociación cultural Entre Bambolinas desde 1983. Publícase trimestralmente co apoio do Instituto Galego das Artes Escénicas e Musicais. A súa liña de sempre estivo presidida pola independencia e a atención preferente ao teatro galego pero con curiosidade por calquera aspecto do teatro en xeral.  
*Fonte: www.converxencia.org*


**H.**  
É a única revista deportiva en galego. Aínda que na actualidade se edita en Vigo, deu os seus primeiros pasos na Estrada. Ten máis de 280 números e 18 anos de vida ás costas. Nela teñen cabida todos os deportes por igual, e o fútbol recibe un tratamento similar aos outros.  
*Fonte: www.converxencia.org*

**TÁBOA DE RESPÓSTAS**

ENUNCIADOS	Letra do texto	NON ESCOITAIS ESPORO PARA A CORRECCIÓN
<b>Ex.</b>	<b>A</b>	✓
<b>0. Revista a prol dos concertos en directo</b>		
<b>1. Revista centrada no mundo do deporte</b>		
<b>2. Revista cunha visión retranqueira da sociedade</b>		
<b>3. Revista dedicada ao sector do automóbil</b>		
<b>4. Revista gratuita para promocionar espectáculos</b>		
<b>5. Revista sobre o mundo do escenaro</b>		



**TAREFA 2** (...../7)




Comprar unha peza de vestir non debería ser só cuestión de moda e gusto. A clase de tecido utilizado para a súa confección determinará a súa calidade, duración e condicións de conservación. Le atentamente os seguintes textos para aclarar algunhas dúbidas que ten sobre esta cuestión.

Escriba na táboa de respostas, en **maiúsculas**, a letra do texto que conteña a información solicitada, como no exemplo 0.

**Un mesmo texto pode conter a resposta a distintas preguntas.**


As respostas deben basearse unicamente na información contida nos textos.

**A. ALGODÓN**



Representa o 39% do consumo total de fibras téxtiles. Retén gran cantidade de auga, é fresco e o seu uso resulta confortable. Tínguese con facilidade, co que non se produce o fenómeno de descarga no proceso de tintura. Non ten estabilidade fronte á conservación da forma e hai que conferirlla mediante tratamentos mecánicos ou químicos. Engúrrase, aínda que existen tratamentos químicos para evitalo. É máis económico que as fibras animais. Cando arde, cheira a papel queimado. Resiste mal os ácidos e ben as lixivias. O algodón ofrece moitas vantaxes para a súa conservación. É moi resistente ao lavado, pódese refragar, escorrer o pássalle o ferro doadamente, aínda que se recomenda que o tecido estea húmido antes de facelo. Pode limpase en seco.


**B. LIÑO**



Foi unha das primeiras fibras que o home utilizou, antes mesmo que a lã. Na actualidade, goza de grande aceptación na confección de pezas para o verán, debido a que é capaz de absorber ata un 20% de auga sen adquirir un tacto húmido, o que o fai moi fresco. Dependendo da técnica do fiado, pode fabricarse un tecido tan fino como a batista ou tan basto como a lona. A superficie da fibra, moi lisa, faiño suave ao tacto. A súa resistencia á rotura permítille ter a vida máis longa das fibras nobres naturais. Pola súa afinidade aos colorantes, o tecido de liño é moi apropiado para a estampaxe e esta mesma consistencia permite realizar nel calquera tipo de bordado. Con boas características de conservación, resiste maiores temperaturas de lavado que o algodón, pero cómpre ter liño co uso da lixivia.

*Fonte: Revista Consumer*


**C. SEDA**



É moi brillante, fina, suave, lisa e renxente. A seda non arde, é elástica, retén a auga, engurra con bastante facilidade e non é atacada polos insectos. Debe lavarse á man, con auga fría, sen fregar nin retorcer, así que non convén que a roupa de seda se ensucie moito, co fin de limpala sempre cun lavado lixeiro. Para mantela viva hai que evitar o uso de lixivia e débesele pasar o ferro con cuidado. Pódese limpar en seco con calquera tipo de disolvente, pero hai que facelo con precaución para que non se deteriore nin perda as súas calidades.

*Fonte: Revista Consumer*

**D. LA**



Retén auga, por iso lle custa moito secar; é un bo illante térmico, xa que garda a calor que o corpo produce, proporcionando unha sensación cálida. É elástica, non se deforma e engurra pouco, xa que ten gran poder de recuperación. Resiste os ácidos pero non as lixivias, mesmo diluídas. Pódea trillar a couza, ponse amarela co sol e non almacena electricidade estática.


Debe lavarse en auga morna, con precaución e utilizando xabón neutro, pero sen fregar nin retorcer. A ser posible, as pezas de lã deben secar en horizontal. Pode limpase en seco e admite o ferro de pasar a baixa temperatura e baixo un pano húmido para evitar brillos. Só as pezas que así o indiquen poden lavarse á máquina.

*Fonte: Revista Consumer*

**TÁBOA DE RESPÓSTAS**

Que tecido...	Letra do texto	NON ESCRIBIR Espazo para a corrección
Ex. 0. merece especial cuidado á hora de secalo.	D	✓
1. convén pasarlle o ferro sen que estea enroxoito.		
2. estixe a limpeza manual en frío ou en seco.		
3. muda de cor se está moi exposto á luz solar.		
4. pode confeccionarse en varias texturas.		
5. pode ser picado por algúns insectos.		
6. resulta moi apropiado para facer labores.		
7. soporta mellor os efectos da lixivia.		

**TAREFA 3** (...../5)




Vostede vai pasar uns días de vacacións a unha praia levantina e sabe que en anos anteriores houbo serios problemas nesta costa pola abundancia de medusas. Cando atopa este artigo le estes consellos que lle poden ser útiles.

Lea atentamente o seguinte texto e os seguintes enunciados.

Indique, na táboa de respostas se os enunciados son verdadeiros ou falsos, marcando a opción correcta cunha cruz, como no exemplo 0.

As respostas deben basearse unicamente na información contida no texto.

**Medusas e augamares**



As medusas ou augamares tórnanse na nova praga das costas españolas. O 95% dunha augamar é auga, de aí a súa transparencia, que lles serve para camuflarse.

O contacto con augamares vivas, mortas ou con restos delas, produce unha dor e unha comechón intensa e inmediata na zona afectada. Pode causar reaccións locais con arrubiamiento, inflamación e vasculas pequenas, entre outras. Menos común é a sintomatoloxía de carácter xeral: náuseas, vómitos e cambras. Os casos máis graves poden ocasionar perda de consciencia, con risco de afogamento se a persoa afectada está dentro da auga.

Se xa se tivo contacto previo cunha augamar poida que estea sensibilizado, e unha segunda picada pódello producir unha reacción máis severa. Cando as augamares aparecen nas praias, a mellor prevención é permanecer fóra da auga. A utilización correcta de locións solares actúa como unha capa illante fronte aos tentáculos de augamares e doutras especies ou substancias tóxicas que flotan na auga.

Teña en conta que as augamares non atacan, senón que pican cando se contacta cos seus tentáculos de xeito accidental, así que cando se detecta a presenza dalgunha hai que saír devagar da auga sen movementos bruscos para evitar atraer os tentáculos.

Non se debe tocar nunca unha augamar, aínda que estea fóra do mar e pareza morta, xa que as células urticantes poden seguir activas.

Se se sofre unha picadura hai que limpar a zona afectada con auga salgada ou con soro fisiolóxico; nunca se debe utilizar auga doce nin fregar con area nin coa toalla porque aumentará a irritación. Débese aplicar frío sobre a zona afectada durante uns quince minutos usando unha bolsa de plástico que conteña xeo para favorecer que o veneno perda o seu efecto, co que evitárase que chegue ao torrente sanguíneo e que poida xerar complicacións posteriores. Se hai algún resto de tentáculo adherido á pel non se deben realizar movementos bruscos para desprenderse del senón que hai que quitalo utilizando unhas pinzas. Ademais, débese aplicar unha crema que conteña un analéxico para diminuir a dor, pero se esta é moi intensa e o estado da vítima empeora cómpre acudir a un centro médico decontado.

*Fonte: Revista Consumer*

**TÁBOA DE RESPÓSTAS**

ENUNCIADOS	V	F	NON ESCRIBIR Espazo para a corrección
Ex. 0. O contacto con augamares pode causar proido, cor vermella da pel e bochas.	X		✓
1. Entre os síntomas que pode producir a súa picada están as molestias musculares e dixestivas.			
2. Se xa sufriu a picada dunha medusa estará inmunizado para sempre e pode despreocuparse.			
3. O uso axeitado de cremas con filtro solar protexe a pel fronte ás células urticantes dos seus tentáculos.			
4. As augamares pican porque detectan a presenza dalgún inimigo e se senten atacadas.			
5. Para aliviar as molestias da picada dunha augamar debe refregarse ben cunha loción calmante.			

**TAREFA 4** (...../8)



Vostede sempre desaxou ter unha casa de seu; agora acaba de atopar nunha revista de decoración un artigo sobre vivendas modulares e, pensando que podería facer realidade os seus soños, leo con atención.

Lea atentamente o seguinte texto e os seguintes enunciados.

Marque na táboa de repostas a opción correcta (a, b, c) en cada caso, como no exemplo 0.

As respostas deben basearse unicamente na información contida no/s texto/s .



**CONSTRÚA A SÚA CASA NUN MES**

Paredes acristaladas que ofrecen un contacto directo coa natureza, unha planta sinxela con amplos espazos ou deseños clásicos. Nun mes e por un prezo accesible pode levantar a súa vivenda modular.

Para algúns trátase de casas prefabricadas, para outros a alternativa ideal a unha vivenda tradicional, na que tamén pode pór a súa creatividade a proba co deseño, e que permite aforrar custos e tempo de espera na entrega.

Nalgúns países é unha realidade cotiá; porén, noutros ás casas modulares aínda lles custa abrirse camiño como unha opción de vivenda habitual. Son os namorados do contacto coa natureza e as familias con nenos pequenos os que están máis adaptados a formalizar o seu fogar neste tipo de residencia.

Os directivos dunha das empresas líderes no sector, IMBSA, afirman que os controis de calidade e o proceso construtivo están sometidos a tanto rigor que quen despreza este tipo de vivendas é que realmente non as coñece ben.

Daniel Branco, director de IMBSA, explica que as construcións modulares pódense colocar en calquera sitio, "tanto en predios rústicos, onde non necesitarían ningún tipo de proxecto, como en solos urbanos, nos que si irían suxeitas a un proxecto de arquitectura".

A intención neste tipo de vivendas é que a sustentabilidade da zona quede aplicada ao deseño, de forma que non só se ten en conta a calidade, senón que existan os certificados oportunos de protección do medio, e inténtase que provoquen o menor impacto posible na contorna.

O teitume plano dos módulos podería parecer pouco recomendable para zonas onde a choiva e a neve son habituais; con todo, Daniel Garrido, arquitecto de IMBSA, aclara que estudan ben o lugar onde se vai situar a vivenda, pois "non só traballamos con cubertas planas. Hai normativas municipais que obrigan a que a cuberta vaia inclinada a dúas ou a catro augas con tella ou lousa. Aínda así, nos casos en que se opta por unha cuberta plana, estaría calculada para soportar tanto a neve como as grandes choivas".

Se o que non lle gusta é o aspecto externo, de cubo, da vivenda, pode forrar o exterior como máis lle apeza: ladrillo visto, madeira ou pedra para lle dar un toque máis rústico.

O equipamento que ofrece é total: electricidade, calefacción, aire acondicionado, todo segundo a normativa vixente, e un equipamento básico, se o cliente así o desexa, "pero non vai imposto. A cocíña, por exemplo, pode elixir o cliente a que queira, como nunha vivenda tradicional. E a decoración interior depende totalmente do dono da casa".

Tamén é o propietario quen decide a disposición dos módulos, só suxeita ás dimensións dos paneis e ao espazo exterior da parcela. "Hai quen ten unha idea exacta do que quere e, se non é así, o noso estudio faille un proxecto".

Se tema pasar frío ou calor, a empresa asegura que o illamento deste tipo de módulos é perfecto, pois resiste temperaturas extremas, de menos 40º C no inverno e 50º no verán, con alto índice de humidade.

O sistema de calefacción pode variar e instalarse desde bombas de calor ata calefacción tradicional de radiadores. "Nós inclinámomos máis polo aforro enerxético que proporciona a calefacción por solo radiante, pero vai en gustos e na economía do cliente".

Se o que lle preocupa é que a súa vivenda quede arrasada por mor de desastres naturais, algunhas destas construcións dan garantías sobre iso. Os técnicos de IMBSA afirman que o seu produto está adaptado á normativa sísmica, o que supón que a súa solidez é forte: de feito, un módulo de 6x3 metros que inclúa baño pode pesar arredor de 9 ou 10 toneladas.



Fonte: Flavieta Casa nova, AVC

TÁBOA DE RESPÓSTAS		
Ex.0.	Entre as razóns para optar por estas vivendas está...	NON ESCRIBIR Espazo para a corrección
<input checked="" type="checkbox"/> a)	a redución do prazo de entrega.	✓
<input type="checkbox"/> b)	o deseño creativo e funcional.	
<input type="checkbox"/> c)	o prezo apto para todos os petos.	
1.	Os compradores adoitan ser...	NON ESCRIBIR Espazo para a corrección
<input type="checkbox"/> a)	familias amantes da vida no campo.	
<input type="checkbox"/> b)	familias namoradas do turismo.	
<input type="checkbox"/> c)	membros de familias numerosas.	
2.	As construcións modulares pódense situar...	NON ESCRIBIR Espazo para a corrección
<input type="checkbox"/> a)	en predios rústicos se dispoñen dun proxecto.	
<input type="checkbox"/> b)	en solos rústicos sen necesidade de proxecto.	
<input type="checkbox"/> c)	en solos urbanos sen necesidade de proxecto.	
3.	As cubertas destas construcións...	NON ESCRIBIR Espazo para a corrección
<input type="checkbox"/> a)	poden ser inclinadas se o esixe o concello.	
<input type="checkbox"/> b)	son inclinadas para adaptarse á lexislación.	
<input type="checkbox"/> c)	son inclinadas para afrontar as nevaradas.	
4.	O comprador pode optar por...	NON ESCRIBIR Espazo para a corrección
<input type="checkbox"/> a)	colocar tabiques de pedra.	
<input type="checkbox"/> b)	forrar o interior con madeira.	
<input type="checkbox"/> c)	revestir as paredes de fóra.	

5.	A colocación dos módulos depende...	NON ESCRIBIR Espazo para a corrección
<input type="checkbox"/> a)	do concello e do gusto do propietario.	
<input type="checkbox"/> b)	do proxecto realizado polo arquitecto.	
<input type="checkbox"/> c)	do terreo e das medidas dos paneis.	
6.	Segundo a aseguradora, o illamento resiste temperaturas de...	NON ESCRIBIR Espazo para a corrección
<input type="checkbox"/> a)	menos 40 graos no inverno.	
<input type="checkbox"/> b)	menos de 40 graos no inverno.	
<input type="checkbox"/> c)	menos de 40 graos no verán.	
7.	Para queantar a vivenda, a empresa recomenda o sistema de...	NON ESCRIBIR Espazo para a corrección
<input type="checkbox"/> a)	bomba de calor.	
<input type="checkbox"/> b)	radiadores de ferro.	
<input type="checkbox"/> c)	solos radiantes.	
8.	Respecto da protección fronte aos desastres naturais...	NON ESCRIBIR Espazo para a corrección
<input type="checkbox"/> a)	a solidez destas construcións deféndelas dos tremores.	
<input type="checkbox"/> b)	algunhas vivendas son seguras contra os terremotos.	
<input type="checkbox"/> c)	o peso destes módulos ampáraos fronte aos sismos.	

**Galego**

**Expresión escrita**

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**Puntuación e duración:**

Tarefa	Aprox. minutos	Puntos	NON ESCRIBIR Espazo para a corrección
Tarefa 1	Aprox. 35 minutos	10 puntos	
Tarefa 2	Aprox. 55 minutos	15 puntos	
<b>TOTAL</b>		<b>25 PUNTOS</b>	..... /25
<b>máx. 90 MINUTOS</b>			

**Materiais ou Instrumentos que se poden empregar durante a proba:**

- Bolígrafo con tinta negra ou azul.


**Advertencias para a persoa candidata:**

- Os tempos son aproximados e non haberá pausa ningunha entre as distintas tarefas.
- Os teléfonos móbiles deben permanecer apagados durante a proba.
- Non se avaliará ningunha tarefa escrita con lapis ou emendada con líquidos ou cintas correctoras.
- Non se avaliará aquela tarefa que non se axuste á extensión indicada nas instrucións.
- Non se avaliará aquela tarefa que estea escrita completamente en maiúsculas.
- Non se avaliarán "borradores" das tarefas.
- A follas empregada como borrador deberá ser entregada ao remate da proba.
- Deberá asinar a entrega desta proba no documento correspondente.

**TAREFA 1** (...../10)

**Tempo aproximado para a realización da tarefa: 35 minutos**

**TEMA: "A ENERXÍA EÓLICA"**



A comunidade de montes á que pertence como comuneiro/a recibiu hai pouco a oferta dunha empresa para a instalación dun parque eólico. Na reunión informativa que realizou esta empresa, as opinións estaban divididas.

**Características da oferta**

- Potencia do parque: 40 MW
- Sistema de alugueiro da terra. A comunidade de montes conserva a propiedade
- Período de ocupación: 30 anos. Obriga de desmantelamento e restauración ao rematar, en caso de non acordar prorrogar o contrato
- Sistema de pagamento: establécese un canon de 3 euros por KW en función da potencia instalada
- Actualización anual da renda
- Usos permitidos: pastoreo
- Compromiso de igualar a oferta doutros parques con características similares

Fonte: Guía para os propietarios dos terreos eólicos (adaptación)

Escriba unha carta para enviarlles aos comuneiros e comuneiras ausentes, antes da asemblea extraordinaria prevista para tratar o tema.

**N.º de palabras: mínimo 150 - máximo 180**

**Ten que tratar obrigatoriamente os tres puntos seguintes**, na orde que considere oportuna:

- Explique a oferta que a empresa lle presentou á xunta directiva na reunión anterior.
- Valore esta proposta (tipo de enerxía, beneficios económicos, efectos no medio natural...).
- Considere outras alternativas de aproveitamento do monte (silvicultura, turismo...).

➤ O texto deberá respectar o número de palabras requirido.

➤ Debe tratar todos os puntos indicados.


➤ Non esqueza poñer os datos correspondentes a este tipo de texto.

**TAREFA 2** (...../15)

**Tempo aproximado para realizar a tarefa: 55 minutos**


Elixa unha das 2 opcións seguintes:

**Opción A**  
**TEMA: Dereito a votar**



Vostede acaba de ler o manifesto da plataforma "Se resides, decides" nun xornal dixital. É un tema que lle interesa e sobre o que ten reflexionado en distintas ocasións.

**SE RESIDES, DECIDES**



O 12 de febreiro de 2009 foi constituída en Compostela unha plataforma cidadá que, baixo o lema "Se resides, decides" traballará por conseguir a reforma en profundidade da actual Lei orgánica de réxime electoral xeral que regula o dereito de sufraxio e o seu exercicio.

A iniciativa aspira a dar resposta ao amplo sentir da cidadanía crítica coas eivas do actual sistema electoral, que recoñece o dereito pleno a colectivos que residen no exterior e cuxo único vínculo co país consiste precisamente no exercicio do dereito a voto ao tempo que mingua, ou directamente nega, dereitos a colectivos que residen de forma permanente no país (marifeiros, penados, inmigrantes). Esta plataforma defende que o voto sexa "un dereito de residencia, non de sangue".

Fonte: Vieiros

Decide escribir un comentario para inserir na sección de comentarios do xornal dixital.

**N.º de palabras: mínimo 200 - máximo 230**


**Debe tratar os tres puntos seguintes**, na orde que considere oportuna:

- Expoña a situación do colectivo de persoas inmigrantes e persoas non residentes respecto dos dereitos de voto.
- Compárea coa situación doutros países.
- Explique a súa postura respecto do dereito destes colectivos a votar nas eleccións municipais, autonómicas e xerais.

➤ O texto deberá respectar o número de palabras requirido.

➤ Debe tratar todos os puntos indicados.

**Opción B**  
**TEMA: Os programas de telerrealidade**



Vostede acaba de buscar na Galipedia información sobre os programas de telerrealidade, pois quere escribir un artigo de opinión para unha revista dixital.

Os programas de telerrealidade son un xénero televisivo no cal se mostra o que lles ocorre a persoas reais, en contraposición coas emisións de ficción, onde se mostra o que lles ocorre a personaxes ficticios (interpretados por actores ou actrices).

Existen tres tipos principais:

- **Observador pasivo:** a cámara observa pasivamente as actitudes dunha persoa ou dun grupo.
- **Observador ou cámara agochada:** a cámara observa persoas que ignoran que son filmadas. Adoita utilizarse en programas que fan bromas ou enfrontan a xente a situacións inverosímiles e filman as súas reaccións para entreter a audiencia.
- **Concurso de telerrealidade:** un grupo de persoas nun ambiente cerrado compiten por un premio, mentres son observados de forma continua polas cámaras.

**Modalidades máis importantes:**

- Tipo supervivencia: *Superviventes, A illa dos famosos, A casa de 1906*
- Tipo encerro: *Grande irmán*
- Tipo academia artística: *Operación triunfo*
- Tipo cambio de imaxe: *Gran cambio, Esta casa era unha ruína*
- Tipo solteiro busca parella: *Granxeiro busca esposa*
- Tipo busca de emprego: *O aprendiz*
- Tipo cámara agochada: *Pillados*

Fonte: <http://es.wikipedia.org>

**N.º de palabras: mínimo 200 - máximo 230**

Escriba un artigo de opinión para a revista.

**Debe tratar obrigatoriamente os tres puntos seguintes**, na orde que considere oportuna:

- Valore os programas de telerrealidade e explique a que pode deberse o seu éxito.
- Expoña as consecuencias que o auxe deste tipo de programas ten na nosa sociedade.
- Explique como debería ser a programación televisiva na súa opinión.

➤ O texto deberá respectar o número de palabras requirido.

➤ Debe tratar todos os puntos indicados.



**Ficha A1: Casa nova** **Monólogo - Candidato/a A**

**CONTEXTO**  
Vostede quere comprar unha vivenda. Vai á inmobiliaria e cóntalle o que busca á persoa que o atende. Necesita...



- Apartamento ou casa?
- Características: número de cuartos, materiais, con/sen garaxe...
- Prefire que teña mobles

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A1: Casa nova** **Monólogo - Candidato/a B**

**CONTEXTO**  
Vostede acaba de comprar unha vivenda cerca do traballo. Descríballes aos seus compañeiros como é.



- Características da vivenda
- Situación: está cerca de...
- O barrio ten servizos como...

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A10: Galicia, terra máxica** **Monólogo - Candidato/a A**

**CONTEXTO**  
Vostede está falando cuns familiares sobre as cousas que máis lle gustan de Galicia. Cóntelles o que opina sobre:




- A gastronomía
- O clima
- O mundo rural
- Os espazos naturais

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A10: Galicia, terra máxica** **Monólogo - Candidato/a B**

**CONTEXTO**  
Vostede está falando cuns familiares sobre as cousas que máis lle gustan de Galicia. Cóntelles o que opina sobre:




- A paisaxe
- A forma de ser da xente
- As celebracións festivas
- O marisco

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A10: Galicia, terra máxica** **Monólogo - Candidato/a C**

**CONTEXTO**  
Vostede está falando cuns familiares sobre as cousas que máis lle gustan de Galicia. Cóntelles o que opina sobre:



- O camiño de Santiago
- Os monumentos
- As praias
- As vilas e cidades

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A1: Imos aló!** **Interacción - Candidato/a A**

**CONTEXTO**  
Vostedes planean unha viaxe. Deben poñerse de acordo para decidir un destino. Fale dos seguintes puntos:



- A onde queren ir? En que medio de transporte?
- Actividades para realizar: visitas, deportes...
- Roupa que deben levar

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A1: Imos aló!** **Interacción - Candidato/a B**

**CONTEXTO**  
Vostedes planean unha viaxe. Deben poñerse de acordo para decidir un destino. Fale dos seguintes puntos:



- A onde queren ir? Medio de transporte?
- Viaxe de descanso ou con moitas actividades?
- Roupa que deben levar

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A10: Teño que facelo!** **Interacción - Candidato/a A**

**CONTEXTO**  
Están tomando café entre amigos e conversan sobre o que lles gustaría facer na vida e as cousas que nunca farían. Elix a entre os seguintes temas:



- Escribir un libro
- Montar un negocio
- Tirarse en paracaídas
- Dar a volta ao mundo
- Cantar nun escenario
- Plantar unha árbore

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A10: Teño que facelo!** **Interacción - Candidato/a B**

**CONTEXTO**  
Están tomando café entre amigos e conversan sobre o que lles gustaría facer na vida e as cousas que nunca farían. Elix a entre os seguintes temas:



- Ter fillos
- Divorciarse
- Vivir só ou soa
- Realizar viaxes de aventura
- Vivir nun país estranxeiro
- Tocar un instrumento

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio

**Ficha A10: Teño que facelo!** **Interacción - Candidato/a C**

**CONTEXTO**  
Están tomando café entre amigos e conversan sobre o que lles gustaría facer na vida e as cousas que nunca farían. Elix a entre os seguintes temas:



- Comprar unha casa
- Casar
- Traballar no estranxeiro
- Facer parapente
- Viaxar a países exóticos
- Cantar nun karaoke

Preparación: 1 minuto  
Intervención: 2 minutos  
As fotos só están de apoio



# SPANISH TEST SAMPLES

**Español**

**Comprensión oral**

**Puntuación y duración:**

			NO ESCRIBIR Espacio para la corrección
Tarea 1	Aprox. 8 minutos	5 puntos	
Tarea 2	Aprox. 6 minutos	7 puntos	
Tarea 3	Aprox. 8 minutos	6 puntos	
Tarea 4	Aprox. 9 minutos	7 puntos	
<b>TOTAL</b>	<b>máx. 35 MINUTOS</b>	<b>TOTAL 25 PUNTOS</b>	<b>..... /25</b>

**Materiales o instrumentos que se pueden emplear durante la prueba:**

- Botifrajo con tinta negra o azul.

**Advertencias para la persona candidata:**

- Los teléfonos móviles deben permanecer apagados durante la prueba.
- No se evaluará ninguna tarea escrita con lápiz o enmendada con líquidos o cintas correctoras.
- Se anularán las respuestas en las que se marque más de una opción, siempre que no se indique con suficiente claridad que se trata de un error.
- En caso de error, las personas candidatas marcarán la nueva respuesta con una X rodeada por un círculo (X).
- Se anularán las respuestas que no sean claras y/o legibles y que no estén dentro de los espacios habilitados para tal fin.
- Deberá firmar la entrega de esta prueba en el documento correspondiente.
- No se podrá abandonar el aula hasta que termine la prueba.

**TAREA 1** (...../5)

Usted escucha diferentes mensajes radiofónicos y tiene que elegir una imagen para cada uno. Observe las imágenes y escuche atentamente los documentos sonoros. Escriba, EN MAYÚSCULAS, en la tabla de respuestas el número del documento sonoro que se corresponda con cada enunciado, como en el ejemplo 0.

**2 imágenes no se corresponden con ningún documento sonoro.**

Las respuestas deben basarse únicamente en la información contenida en los documentos sonoros.

**A.**

**B.**

**C.**

**D.**

**E.**

**F.**

**G.**

**H.**

**TABLA DE RESPUESTAS**

N.º DEL DOCUMENTO SONORO	Ej.0	1	2	3	4	5
LETRA DEL ENUNCIADO	A					
NO ESCRIBIR Espacio para la corrección	✓					

**TAREA 2** (...../7)

Va a escuchar dos fragmentos de programas de radio sobre el tabaquismo.

Lea las preguntas y escuche atentamente los documentos sonoros. Escriba en la tabla de respuestas la respuesta correcta en cada caso, como en el ejemplo 0.

Las respuestas deben basarse únicamente en la información contenida en los documentos sonoros.

**TABLA DE RESPUESTAS**

		Dejar de fumar	NO ESCRIBIR Espacio para la corrección
Ej. 0	Un temor que el fumador puede tener al decidir dejar de fumar:	el miedo a engordar	✓
1	¿Cómo pueden ser los fundamentos del miedo a engordar?		
2	Dejar de fumar afecta a las hormonas, al gusto y al olfato,...		
3	¿Qué alimentos realizan el sabor del tabaco?		
4	¿Qué bebidas empeoran el sabor del tabaco?		
		<b>Cuatro bares de Ciudad Rodrigo</b>	
5	¿Qué es lo que no se aplica en los bares de Ciudad Rodrigo?		
6	¿Qué quieren expresar con la recogida de firmas?		
7	¿Qué cosa no temen los hosteleros?		

**TAREA 3** (...../6)

Usted está escuchando un programa de radio en el que los oyentes intervienen aportando su opinión sobre los años 80.

Indique, en la tabla de respuestas, si los enunciados son verdaderos o falsos, marcando la opción correcta con una cruz, como en el ejemplo 0.

Las respuestas deben basarse únicamente en la información contenida en el documento sonoro.

**TABLA DE RESPUESTAS**

ENUNCIADOS	V	F	NO ESCRIBIR Espacio para la corrección
Ej. 0. Durante los 80 ella era una niña.		X	✓
1. Vivió aquella época de una manera intensa.			
2. Cree que aprovechó bien aquellos años.			
3. Actualmente convive con su pareja.			
4. Sus padres la obligaban a seguir un horario estricto.			
5. Para ella es importante tener una pareja estable cuando se es joven.			
6. Ninguna de sus amigas tuvo hijos.			

**TAREA 4** (...../7)

Usted está escuchando un programa de radio sobre los niños adoptados en España durante el franquismo. Lea los enunciados y escuche atentamente el documento sonoro.

Marque en la tabla de repuestas la opción correcta (a, b o c) en cada caso, como en el ejemplo 0.

Las respuestas deben basarse únicamente en la información contenida en el documento sonoro.

**TABLA DE RESPUESTAS**

Ej.0.		NO ESCRIBIR Espacio para la corrección
Enrique, Marité y Manuela son personas que		
<input checked="" type="checkbox"/> a) vivieron con una familia adoptiva y no conocen sus orígenes.		✓
<input type="checkbox"/> b) buscan recuperar a sus padres, que los abandonaron.		
<input type="checkbox"/> c) adoptaron a sus hijos y buscan a sus padres biológicos.		
<b>1.</b> Hay un 10% de niños adoptados o expositos que		
<input type="checkbox"/> a) no pueden investigar sus orígenes biológicos.		
<input type="checkbox"/> b) nacieron en instituciones religiosas o privadas.		
<input type="checkbox"/> c) no pueden acceder a ningún archivo judicial.		
<b>2.</b> Actualmente en España, la ley dice que los niños adoptados		
<input type="checkbox"/> a) tienen derecho a conocer a sus padres.		
<input type="checkbox"/> b) pueden acceder a la información libremente.		
<input type="checkbox"/> c) reconocen a sus padres adoptivos todos los derechos.		

3.	Los profesionales ayudan al adoptado a buscar sus orígenes si	NO ESCRIBIR Español para la corrección
<input type="checkbox"/> a)	es orientado e informado adecuadamente.	
<input type="checkbox"/> b)	está plenamente informado de sus derechos legales.	
<input type="checkbox"/> c)	lo consideran preparado para buscar a sus padres biológicos.	
4.	Durante el franquismo una madre soltera	NO ESCRIBIR Español para la corrección
<input type="checkbox"/> a)	tenía que dar a su hijo en adopción.	
<input type="checkbox"/> b)	estaba mal vista.	
<input type="checkbox"/> c)	no tenía derechos sobre sus hijos.	
5.	Durante el franquismo	NO ESCRIBIR Español para la corrección
<input type="checkbox"/> a)	el Gobierno controlaba las adopciones.	
<input type="checkbox"/> b)	un médico controlaba los procesos de adopción.	
<input type="checkbox"/> c)	muchas madres pudieron haber sido engañadas.	
6.	Enrique	NO ESCRIBIR Español para la corrección
<input type="checkbox"/> a)	no supo que era adoptado hasta los 23 años.	
<input type="checkbox"/> b)	hasta los 23 años creyó que su padre era adoptado.	
<input type="checkbox"/> c)	fue adoptado por su padre con 23 años de edad.	
7.	El padre biológico de Enrique	NO ESCRIBIR Español para la corrección
<input type="checkbox"/> a)	murió en el hospital de cáncer.	
<input type="checkbox"/> b)	encontró un papel en el que supo su origen.	
<input type="checkbox"/> c)	es desconocido.	

**TAREA 1** (...../5)

Usted se informa con las noticias breves de diferentes periódicos. Lea atentamente los siguientes textos y los siguientes enunciados. Escriba en la tabla de respuestas, EN MAYÚSCULAS, la letra del texto que se corresponda con el enunciado correcto, como en el ejemplo 0.

**2 textos no se corresponden con ningún enunciado.**  
Las respuestas han de basarse únicamente en la información de los textos.

**A.**  
El Distrito Sanitario y el Ayuntamiento colaboran en dos iniciativas: el proyecto *Deporte y Salud* y la implantación de la propuesta *Un Millón de Pasos*. La idea es utilizar el ejercicio físico para prevenir enfermedades, reducir el uso de medicamentos y llevar un estilo de vida activo.  
Adaptado de: <http://www.diafija.es/>

**B.**  
El Colegio Oficial de Enfermería organizó ayer la mesa redonda *Tercera Edad y Calidad de Vida*. Creemos que es un tema de actualidad porque las expectativas de vida en Occidente son cada vez más elevadas. La finalidad de esta jornada es formar e informar al usuario", declaró su presidente.  
Adaptado de: <http://www.diarodelfarogaron.es/>

**C.**  
La supresión de cierto tipo de alimentos y la obsesión por el ejercicio físico desencadena la "ortorexia", un trastorno que afecta a personas jóvenes. En ocasiones comienza cuando se siguen dietas de moda: como la jarabe de arce, utilizada por Naomi Campbell; la del grupo sanguíneo, seguida por Cheryl Cole.  
Adaptado de: <http://www.itechnico.es/informativa/>

**D.**  
La Universidad de Zaragoza ha puesto en marcha una web que trata de concienciar a los alumnos sobre los riesgos que conlleva el consumo de drogas y alcohol. La página también ofrece información sobre actividades deportivas y consejos para dejar de fumar o llevar una alimentación sana.  
Adaptado de: <http://www.que.es/zaragoza/>

**E.**  
Tu bebé y el pequeño de la casa no sólo pueden, sino que deben hacer deporte regularmente, con actividades adaptadas a su fisonomía. Por eso ahora existe un lugar donde por 60 euros mensuales tu pequeño podrá ejercitar sus músculos mediante ejercicios enfocados de manera lúdica a su desarrollo.  
Adaptado de: <http://pauelobdelarcon.kalijoo.com/>

**TAREA 2** (...../7)

Usted está interesado en biografías de personajes históricos. Lea atentamente las 4 reseñas de libros que están a continuación y las 7 preguntas. Escriba en la hoja de respuestas, EN MAYÚSCULAS, la letra del texto que contenga la información solicitada, como en el ejemplo 0.

**Un mismo texto puede dar respuesta a distintas preguntas.**  
Las respuestas deben basarse únicamente en la información contenida en los textos.

**A.**  
El siglo XI es el siglo de los reyes de Taifas, de la conquista de Toledo, del Cid y de la invasión nortáfricana de los almorávides. Estas memorias del último rey Ziri de Granada, Abd Allah, nos permiten adentrarnos en la vida de aquel agitado siglo. Fueron escritas en el exilio después de haber sido destronado por los Almorávides, en 1090. Las memorias fueron descubiertas en 1930, en raras circunstancias, por el gran historiador Lévi-Provençal. A través de estas memorias oímos hablar a los otros reyes de Taifas, a Alfonso VI, a Pedro Ansúrez, a Alvar Fáñez. Son un relato que describe las interioridades de la corte berberé de Granada y descubre sus intrigas que rozan a veces la tragedia.  
Adaptado de: [http://libros.mylife.es/libros/siglo\\_xi\\_en\\_primera\\_persona](http://libros.mylife.es/libros/siglo_xi_en_primera_persona)

**B.**  
Casanova, veneciano, resultó un prolífico escritor, no ya en obras como en palabras, legajos, ensayos y pensamientos. Su obra magna, *Historie de ma vie*, escrita en su decadencia, entre encierro y protegido como bibliotecario en el Castillo de Dux, son unas memorias peculiares.  
Y es que su historia es fascinante: nacido de una actriz ambulante logró despuntar por su inteligencia y comenzar sus estudios de filosofía y ciencia (aunque quedaron lamentablemente interrumpidos por liarse con la favorita de su protector). Más tarde pasa por fraile aunque eso no deliene sus conquistas amorosas, pero sí su carrera monástica. Tras una época en Francia, donde llega a colarse con Luis XIV o Voltaire, se dedica al juego de la diplomacia y al espionaje.  
Adaptado de: <http://www.linguaquinta.es/olivia/>

**C.**  
Un escritor menor al borde de una jubilación, Marcial Pombó, recibe la propuesta de escribir una autobiografía de Franco. El encargo le parece una broma pesada. Toda su vida ha estado condicionada por el dictador, pero el editor aprecia sus cualidades de excelente redactor de libros de divulgación y biografías. Marcial Pombó, un antifrancista de toda la vida, empieza a escribir como si escribiera Franco, pero de vez en cuando no puede más, replica al auto-biografiado, es decir se replica esquizofrénicamente a sí mismo tratando de oponer algunas notas de su vida personal durante la época franquista. El dictador habla desde la Historia y el escritor teme que la Historia sea demasiado objetiva con la crueldad de una época.  
Adaptado de: <http://www.lecturas.com/libros/3368/autobiografia-del-general-franco>

**ESPAÑOL**

**Comprensión de lectura**

**Puntuación y duración:**

			NO ESCRIBIR Español para la corrección
Tarea 1	Aprox. 10 minutos	5 puntos	
Tarea 2	Aprox. 10 minutos	7 puntos	
Tarea 3	Aprox. 20 minutos	5 puntos	
Tarea 4	Aprox. 20 minutos	8 puntos	
<b>TOTAL máx. 60 MINUTOS</b>		<b>TOTAL 25 PUNTOS</b>	..... /25

**Materiales o instrumentos que se pueden emplear durante la prueba:**

- Bolígrafo con tinta negra o azul.

**Advertencias para la persona candidata:**

- Los tiempos son orientativos y no habrá pausa alguna entre las distintas tareas.
- Los teléfonos móviles deben permanecer apagados durante la prueba.
- No se evaluará ninguna tarea escrita con lápiz o enmendada con líquidos o cintas correctoras.
- Se anularán las respuestas en las que se marque más de una opción, siempre que no se indique con suficiente claridad que se trata de un error.
- En caso de error, las personas candidatas marcarán la nueva respuesta con una X rodeada por un círculo (X).
- Se anularán las respuestas que no sean claras y/o legibles y que no estén dentro de los espacios habilitados para tal fin.
- Deberá firmar la entrega de esta prueba en el documento correspondiente.

**F.**  
Nadie duda de que deporte y ejercicio físico son fundamentales para una buena salud, pero hay quien siente cierto pudor al practicarlos en público. Por eso, la Delegación de Juventud y Deportes reunió en la calle a unos 200 vecinos, la mayoría mujeres, para realizar ejercicios físicos con música.  
Adaptado de: <http://www.andaluciainformacion.es/>

**G.**  
El taller de educación corporal para la tercera edad *Mi cuerpo en Movimiento* dura dos horas: una de charla de concienciación y educación corporal y alimenticia, para que los ancianos y abandonen los malos hábitos en su rutina; la otra hora se dedica a actividades físicas y recreativas.  
Adaptado de: <http://www.quilmespresso.es/>

**H.**  
El Programa de Fomento del Ejercicio Físico para pacientes con riesgo cardiovascular como tabaquismo, colesterol, hipertensión, obesidad o diabetes, ha tenido una gran acogida, con un total de 180 pacientes. Estos pacientes son derivados por su médico o enfermero desde los centros de salud del municipio de Molina de Segura.  
Adaptado de: <http://www.murcia.com/molina/>

**TABLA DE RESPUESTAS**

ENUNCIADOS	Letra del texto	NO ESCRIBIR Español para la corrección
Ej. 0. Evitar las dolencias y los fármacos con actividades.	A	✓
1. El deporte y el control dietético son cosas serias.		
2. El ejercicio físico no tiene edad.		
3. Actividad para posibles enfermos del corazón.		
4. Por tu bien deberías vencer la timidez.		
5. Vivimos más tiempo en la actualidad.		

**D.**  
Santiago Carrillo, autor de estas Memorias, se considera superviviente de una generación combustible que «ha dejado en el camino, muertos en las trincheras, bajo los bombarderos o las represiones, a millones de sus componentes». Se trata del relato de una vida política larga y azarosa. Santiago Carrillo ha sido un luchador activo, con responsabilidades importantes desde muy joven. Estas Memorias narran la trayectoria de una juventud que se hizo comunista en los años del peligro fascista, y que desde las filas del PCE mantuvo en alto la bandera de la resistencia antifascista. «Y cuando hago el balance de mi trayectoria —escribe el autor— lo hago convencido de haber mantenido en o fundamental una coherencia clara».  
Santiago Carrillo: Memorias. Ed. Planeta

**TABLA DE RESPUESTAS**

Alguno de estos libros...	Letra del texto	NO ESCRIBIR Español para la corrección
Ej. 0. cuenta la vida de alguien que gobernó un estado.	A	✓
1. tiene un autor que se dirige a su personaje.		
2. narra la vida agitada de un político.		
3. fue escrito en lugar de otra persona.		
4. cuenta las andanzas juveniles de alguien.		
5. habla de personajes históricos.		
6. cuenta que alguien de origen humilde llega a lo más alto.		
7. estuvo oculto durante siglos.		

**TAREA 3** (...../5)

Usted desea hacer el Camino de Santiago y lee estas indicaciones para antes de salir. Lea atentamente este texto y los siguientes enunciados. Indique, en la tabla de respuestas si los enunciados son verdaderos o falsos, marcando la opción correcta con una cruz, como en el ejemplo 0.

Las respuestas deben basarse únicamente en información contenida en los textos.

**CAMINO DE SANTIAGO**

Para que esta aventura de 800 kilómetros resulte gratificante para el espíritu y lo menos molesta posible para el cuerpo, antes de ponerse en camino viene muy bien buscar información y conocer al menos básicamente la historia del Camino y prepararse físicamente para poder realizar con éxito la peregrinación.

La peregrinación a pie a Santiago de Compostela, dejando a un lado otras consideraciones, se constituye en todo un reto físico y mental que debemos preparar a conciencia.

Los siguientes consejos pueden ayudarnos:

- Ambientate leyendo algo sobre la historia del Camino y la peregrinación: le ayudará a sentirte un eslabón más de la gran cadena de peregrinos que te ha precedido, conseguirás sublimar el esfuerzo físico y psicológico a realizar (las comodidades en el viaje son pocas y el cansancio puede ser importante) y te prepararás mentalmente para disfrutar mejor de la gran experiencia cultural en que se convierte el recorrido.
- Procura hacer un plan de etapas previo, pensando que lo normal es recorrer 25 o 30 kilómetros cada día. Conviene programar al principio etapas cortas, hasta que el cuerpo se vaya haciendo a la idea de nuestro propósito. Al cabo de una semana, ya estarás entrenado y podrás afrontar etapas más largas. Puedes programar algún día de descanso, pero lo mejor es realizar algunas etapas cortas, casi paseos (de unos 10 km.) que coincidan con el paso por los lugares que quieras visitar detenidamente; así podrás descansar sin perder el ritmo y sin dejar de avanzar.
- La peregrinación andando está al alcance de cualquier persona, aunque no sea un atleta, siempre que se sepa dosificar el esfuerzo en función de las posibilidades físicas de cada uno.
- Es recomendable realizar una preparación física previa, tanto para el peregrino de a pie como para el que va en bici o a caballo. Un entrenamiento en recorridos cortos y zonas montañosas es muy aconsejable. Entrenate con caminatas cada vez más largas y, a ser posible, con la mochila cargada y las botas que vayas a llevar el viaje.
- Comunica a tu familia el recorrido con las fechas previstas, para que en caso de urgencia te localicen rápidamente.

*Adaptado de: <http://caminodeantiago.consumer.es/consejos/>*

TABLA DE RESPUESTAS			
ENUNCIADOS	V	F	NO ESCRIBIR Espacio para la corrección
Ej. 0. La experiencia de la Peregrinación puede ser negativa.	X		✓
1. Conocer su historia y soportar la fatiga se relacionan.			
2. Es bueno no dejar de caminar ningún día durante el viaje.			
3. La distancia recorrida diariamente debe ser constante.			
4. Es imposible realizarlo sin entrenamiento.			
5. Hay que informar a la familia del itinerario.			

**TAREA 4** (...../8)

Lea atentamente los siguientes artículos sobre "video-juegos y educación" y el templo de Debod, y los siguientes enunciados.

Marque en la hoja de repuestas la opción correcta (a, b, c) en cada caso, como en el ejemplo 0.

Las respuestas deben basarse únicamente en la información del texto.

**A.**

**El videojuego es parte de mi escuela**

El ocio electrónico arrastra muchos prejuicios, pero se impone como vía de aprendizaje fuera de las aulas y ahora debe entrar en ellas.

La II Conferencia Europea de Juegos de Aprendizaje reunió en Barcelona a medio centenar de profesores, psicólogos, investigadores en general del ocio electrónico aplicado a la educación. Las 59 ponencias presentadas, procedentes de 23 países de todas las culturas, hablaban de las bondades del video-juego en la educación.

Para Henry Jenkins, encargado por la Fundación MacArthur de realizar el retrabajo del alumno del siglo XXI, las mayores oportunidades para este cambio en el aprendizaje no se encuentran actualmente en el sistema educativo, sino fuera de él, en programas extracurriculares y en las comunidades de aprendizaje informal. "Las escuelas deben dedicar más atención a fomentar lo que nosotros llamamos la alfabetización digital: un grupo de habilidades que los jóvenes necesitan en el horizonte multimedia que les rodea".

Jenkins, director del Programa de Estudios Comparativos Multimedia en el MIT, describe las 11 cualidades que deberá poseer el estudiante perfecto, y que el sistema educativo no podrá inculcar sin incorporar los medios digitales. En esos 11 valores el denominador común es la colaboración y la mezcla. Nada que ver con valores hasta hace poco sacrosantos, como memorización, individualismo, obediencia, jerarquía, disciplina...

El videojuego, como lenguaje de aprendizaje, ya es fundamental en otros ámbitos de la vida, desde la autoescuela a las asociaciones de alcohólicos anónimos, por lo que choca su retraso en la incorporación a la escuela.

Quizá es cuestión de tiempo. *Romeo y Julieta* no se escribió para enseñar sensualidad en el colegio, pero ahora nadie protesta por su empleo como material escolar. Hoy es imposible encontrar algo mejor que el juego *Civilization* para explicar en clase el Imperio Romano. Pero no se emplea. "El principal obstáculo es el profesorado, que se tiene que reeducar, que se tiene que adaptar a las nuevas tecnologías", dice Aranda, profesor de la Universitat Oberta de Catalunya.

Pilar Lacasa, de la Universidad de Alcalá de Henares, reparte los obstáculos. A la resistencia del profesorado añade el entorno familiar del alumnado. Y les anima a que se quiten el miedo: "Los videojuegos abren nuevas vías de aprendizaje, de enseñanza, y especialmente de participación, desde unas perspectivas dinámica y creativa."

*Adaptado de [http://www.elpais.com/articulo/sociedad/videojuego.parte.concuerda/2008/11/20/elpais.es\\_53.es](http://www.elpais.com/articulo/sociedad/videojuego.parte.concuerda/2008/11/20/elpais.es_53.es)*

**B.**

**Templo egipcio en Madrid**

Hay pedruzcos arrancados al Egipto faraónico en todas las ciudades del "primer mundo", pero el que alocera Madrid tiene una virtud: no fue robado.

Se lo regalaban a España por haber contribuido al rescate arqueológico de todo lo que iba a quedar sumergido al construirse la segunda represa de Asuán. De hecho, la primera de esas represas había causado que durante nueve meses cada año, las aguas del Nilo cubrieran completamente el Templo Debod, esa maravilla que hoy puede verse en Madrid, cuidadosamente reconstruida.

España lo instaló junto al Parque del Oeste, sobre las ruinas del antiguo Cuartel de Montaña, completamente destruido durante la Guerra Civil española, lo cual también podría ser discutible, como todas las cosas. Pero toda consideración ociosa se olvida al pasear por los jardines, particularmente si la visita se hace próxima al atardecer, aunque teniendo en cuenta los horarios que pueden consultarse en <http://www.munimadrid.es/templodebod/>.

Si te da por la mística, ten en cuenta que los madrileños respetaron hasta la orientación geográfica de este templo que fue concebido para ser recorrido en un sentido determinado. Hasta la presencia del agua fue tenida en cuenta. Así que sin necesidad de trasladarte hasta la lejana Nubia puedes invocar a Amón, dios de dioses, y pedirle algo.

*Adaptado de <http://viajes.elpais.com.es/?p=3309>*

**TABLA DE RESPUESTAS**

Ej. 0.	En la conferencia se veían positivamente los videojuegos	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	denunciando los prejuicios.	
<input type="checkbox"/> b)	dentro del ocio electrónico.	
<input checked="" type="checkbox"/> c)	en todas las ponencias.	✓
1.	Para Henry Jenkins	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	los aparatos digitales y multimedia deben cambiar la escuela.	
<input type="checkbox"/> b)	hay más oportunidades de aprender fuera de la escuela.	
<input type="checkbox"/> c)	se debería adiestrar a los alumnos en el campo digital.	

2.	Las 11 cualidades de Jenkins	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	podrían alcanzarse si se dispone de recursos digitales.	
<input type="checkbox"/> b)	desarrollan la independencia del estudiante.	
<input type="checkbox"/> c)	incluyen la disciplina y la memorización entre otras.	
3.	Los videojuegos	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	enseñan sobre diferentes aspectos de la vida.	
<input type="checkbox"/> b)	se emplean en una variada gama de campos educativos.	
<input type="checkbox"/> c)	fundamentan el trabajo de las escuelas.	
4.	La presencia del videojuego en la escuela	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	se impone progresivamente a pesar de los profesores.	
<input type="checkbox"/> b)	está tardando mucho tiempo en producirse.	
<input type="checkbox"/> c)	plantea problemas de atención a los profesores.	
5.	El entorno familiar	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	presenta el mismo problema que el profesorado.	
<input type="checkbox"/> b)	se adapta a las nuevas tecnologías.	
<input type="checkbox"/> c)	es un obstáculo para el aprendizaje de los alumnos.	
6.	El templo Debod está en Madrid debido	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	a la ayuda española en la construcción de una represa.	
<input type="checkbox"/> b)	al agradecimiento de Egipto a España.	
<input type="checkbox"/> c)	a la contribución española en su reconstrucción.	

7.	El templo se situó en el Parque del Oeste	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	una vez finalizada la Guerra Civil.	
<input type="checkbox"/> b)	sobre los restos de un edificio destruido.	
<input type="checkbox"/> c)	añadido al Cuartel de la Montaña.	
8.	En la nueva situación del templo	NO ESCRIBIR Espacio para la corrección
<input type="checkbox"/> a)	se decidió el lugar de cada cosa arbitrariamente.	
<input type="checkbox"/> b)	se pusieron las partes en su orden originales.	
<input type="checkbox"/> c)	cada cosa se puso de acuerdo con el entorno.	

**Español**

**Expresión escrita**

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**Puntuación y duración:**

			NO ESCRIBIR Espacio para la corrección
Tarea 1	Aprox. 30 minutos	10 puntos	
Tarea 2	Aprox. 45 minutos	15 puntos	
<b>TOTAL</b>		<b>TOTAL</b>	
máx. 75 MINUTOS		25 PUNTOS	..... /25

**Materiales o instrumentos que se pueden emplear durante la prueba:**

- Bolígrafo con tinta azul o negra.

**Advertencias para la persona candidata:**

- Los tiempos son orientativos y no habrá pausa alguna entre las distintas tareas.
- Los teléfonos móviles deben permanecer apagados durante la prueba.
- No se evaluará ninguna tarea escrita con lápiz o enmendada con líquidos o cintas correctoras.
- No se evaluará aquella tarea que no se ajuste a la extensión indicada en las instrucciones.
- No se evaluará aquella tarea que esté escrita completamente en mayúsculas.
- No se evaluarán "borradores" de las tareas.
- La hoja empleada como borrador deberá ser entregada al terminar prueba.
- Deberá firmar la entrega de esta prueba en el documento correspondiente.

TAREA 1 (...../10)

**Tiempo orientativo para la realización de la tarea: 30min.**

**TEMA: "RELACIONES PERSONALES"**

Usted está participando en un foro sobre relaciones personales y lee este correo.

**Una pregunta para todos**

¡por Ojos\_azules » 10 de marzo de 2011 a las 21:13  
[azul@giróscopo.es](mailto:azul@giróscopo.es)

Todos sabemos que para que una persona nos guste tiene que entrar por los ojos, pero hay otras cosas mucho más importantes para que esa persona tenga éxito: su actitud, sus acciones.

MI pregunta es: ¿Qué es lo que más valoráis en una mujer o en un hombre?

Venga. Escribid, valientes. 😊

Usted decide responderlo.

Escriba un correo electrónico. **Número de palabras: mínimo 110 - máximo 140**

**Debe tratar los siguientes tres puntos,** en el orden que considere oportuno:

- Qué piensa usted sobre los que dicen: "para que una persona nos guste tiene que entrar por los ojos".
- Qué cosas valora en una persona que puede ser su pareja.
- Describe cómo sería una relación de pareja perfecta en su opinión.

➢ El texto debe respetar el número de palabras requerido.

➢ Debe tratar todos los puntos indicados.

➢ No olvide poner la dirección, el destinatario y la firma.

TAREA 2 (...../15)

**Tiempo orientativo para la realización de la tarea: 45 min.**

**TEMA: "SALUD Y CUIDADOS FÍSICOS"**

Usted lee la siguiente noticia:

**Un bar de Castelló se hace 'objeto' a la Ley Antitabaco y Sanidad le expedienta**

06/01/2011

CASTELLÓN (EFE).

Inspectores del Ministerio de Sanidad han multado a un bar de Castellón en el que se permite fumar desde que el día anterior sus dueños se declararon "objeto" de la ley antitabaco porque, según dicen, sus ingresos descendieron entre el 75 y 80 por ciento los días que la aplicaron.

*Adaptado de <http://valenciaplan.es/>.*

Usted decide expresar su opinión a través de un comentario.

Escriba su contribución al foro. **Número de palabras: mínimo 150 - máximo 180.**

**Debe tratar los siguientes tres puntos,** en el orden que considere oportuno:

- Su opinión sobre el comportamiento de los dueños del bar de Castelló.
- Cuál es su experiencia respecto a los fumadores y el tabaco.
- Qué le parece la actuación de las autoridades sanitarias respecto a este tema.

➢ El texto debe respetar el número de palabras requerido.

➢ Debe tratar todos los puntos indicados.

**TAREA 1 - INTERACCIÓN FICHA Nº 1**

- Tiempo de preparación: 1 minuto**
- Tiempo de intervención conjunta: mínimo 4 minutos - máximo 5 minutos**

**PERSONA CANDIDATA A**

**CENA ENTRE AMIGOS**

Mañana llega un amigo y usted decide prepararle una **DELICIOSA CENA**. Su compañero/a y usted ya han empezado a hacer algunos preparativos por separado.

Debe ponerse de acuerdo con su compañero/a sobre:

- Qué platos van a ofrecerle
- Qué bebidas ofrecer a los comensales
- Dónde celebrar la cena

**¡ATENCIÓN!**

- UD. DESEA UNA CENA VEGETARIANA
- UD. HA PREPARADO UNA BEBIDA DE FRUTAS
- UD. DESEA CENAR EN SU APARTAMENTO

**TAREA 2 – MONÓLOGO FICHA Nº 1**

- Tiempo de preparación: hasta 3 minutos**
- Intervención individual: mínimo 2 minutos - máximo 3 minutos**

**PERSONA CANDIDATA B**

En estas dos fotos se muestran dos tipos de adicciones:

Trate los siguientes puntos:

- ¿Qué daños provocan?
- ¿Cree que existe tolerancia social hacia ellas? Razone la respuesta.
- ¿Qué opina usted respecto a las dos?



**Compare, contraste, argumente y razone su opinión.**

**TAREA 2 – MONÓLOGO FICHA Nº 1**

- **Tiempo de preparación:** hasta 3 minutos
- **Intervención individual:** mínimo 2 minutos - máximo 3 minutos

**PERSONA CANDIDATA A**

En estas dos imágenes se muestran dos tipos de actividades:

Trate los siguientes puntos:

- ¿Qué diferencias encuentra entre ambos tipos de actividades?
- ¿Qué aspectos positivos y negativos encuentra en cada una de ellas?
- ¿Cuánto tiempo se debería dedicar a cada una de ellas y por qué?

**Compare, contraste, argumente y razone su opinión.**

**TAREA 1 - INTERACCIÓN FICHA Nº 10**

- **Tiempo de preparación:** 1 minuto
- **Tiempo de intervención conjunta:** mínimo 4 minutos - máximo 5 minutos

**PERSONA CANDIDATA B**

**FIN DE CURSO**

Está decidiendo con su compañeros/as cómo celebrar el fin de este curso.

Póngase de acuerdo con sus compañero/as sobre:

- Qué hacer
- Dónde celebrarlo
- A quién invitar

**¡ATENCIÓN!**



- **A UD. NO LE CAE BIEN EL PROFESOR**
- **UD. DESEA UNA CENA EN UN RESTAURANTE**
- **UD. QUIERE QUE VAYA SÓLO GENTE DE LA CLASE**

**TAREA 2 – MONÓLOGO FICHA Nº 10**

- **Tiempo de preparación:** hasta 3 minutos
- **Intervención individual:** mínimo 2 minutos - máximo 3 minutos

**PERSONA CANDIDATA C**

En estas dos imágenes se muestran dos tipos de actividad laboral:

Trate los siguientes puntos:

- ¿Cuál le parece más útil a la sociedad? ¿Por qué?
- ¿Cree que es posible prescindir de uno de ellos? ¿Por qué?
- ¿Cómo valora cada una de estas actividades?



**Compare, contraste y justifique su opinión.**

**TAREA 2 – MONÓLOGO FICHA Nº 10**

- **Tiempo de preparación:** hasta 3 minutos
- **Intervención individual:** mínimo 2 minutos - máximo 3 minutos

**PERSONA CANDIDATA B**

Estas dos imágenes muestran dos tipos de aficiones :

Trate los siguientes puntos:

- ¿Qué opina de cada una de ellas?
- ¿Considera alguna de ellas nociva? ¿Por qué?
- ¿Cree que tener aficiones es necesario? ¿Por qué?



**Compare, contraste y justifique su opinión.**

**TAREA 2 – MONÓLOGO FICHA Nº 10**

- **Tiempo de preparación:** hasta 3 minutos
- **Intervención individual:** mínimo 2 minutos - máximo 3 minutos

**PERSONA CANDIDATA A**

Estas dos imágenes muestran dos tipos de comportamiento juvenil:

Trate los siguientes puntos:

- ¿Qué opina de cada una de ellos?
- ¿Cree que una es peor que la otra? ¿Por qué?
- ¿Debería tomar medidas el gobierno para evitarlos? ¿Por qué?

**Compare, contraste y justifique su opinión.**



# SOCIAL SCIENCE TEST SAMPLES

**CIENCIAS SOCIAIS**  
IMOS VER CANTO SABEDES

1) Europa ten numerosas illas como:

- Reino Unido
- Suecia
- Portugal
- Italia

2) Relaciona os límites xeográficos de Europa:

	co océano Atlántico	co continente asiático	co continente africano	co océano Glacial Ártico
Ao leste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ao oeste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ao norte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ao sur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3) Que é o clima?

- É o estado medio da atmosfera sobre un lugar.
- É o estado da atmosfera sobre o mar
- É o estado que representa a terra e o aire
- É a capa de aire que envolve o ceo, unida por efecto da gravidade.

4) En relación á poboación no mundo actual, de onde proveñen as migracións sur-norte?

- Proceden de Estados Unidos e Canadá
- Parte do Caribe e parte dos países andinos, o Magreb e a África subsahariana, Asia oriental e meridional, e Europa do leste.
- Só proceden de parte do Caribe e dos países andinos
- Proceden dos países latinoamericanos.
- Ningunha das respostas anteriores.

5) Canto ao concepto da globalización na economía, son axentes poderosos desa globalización:

- As familias
- As multinacionais
- As institucións
- As empresas

6) En relación á economía, en que consiste a distribución

- O consumo de bens
- A produción de bens
- O conxunto de actividades realizadas para producir bens
- O traslado da produción e a súa venda ao mercado

7) Este ano, estudamos os transportes terrestres. Que inconvenientes ten o transporte por ferrocarril?

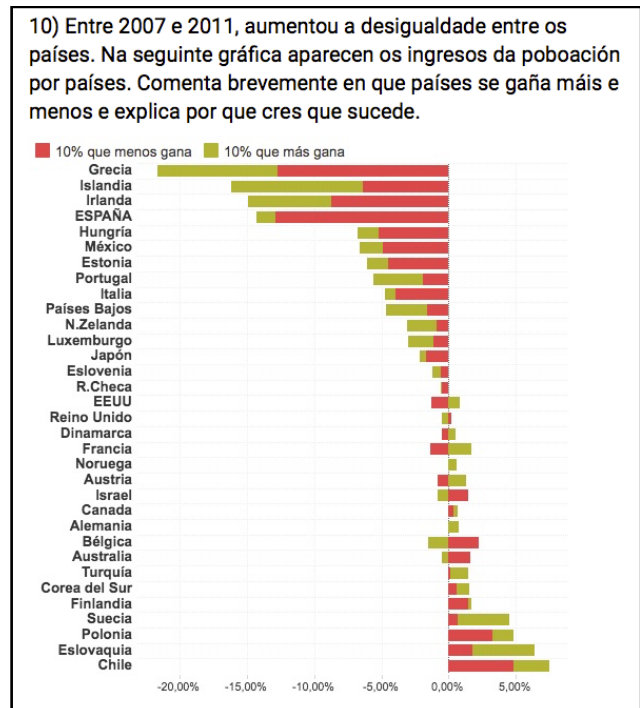
- Alta contaminación por emisión de CO2
- Lentitude
- Elavado custe de mantemento das liñas
- Elevado custe de produción

8) ¿Lembras que se intenta acadar coas políticas turísticas?

- Fomentar un turismo sostible, mantendo os valores naturais e culturais.
- Incrementar os desprazamentos turísticos
- Repartir o turismo entre zonas de forma proporcional.
- Buscar alternativas turísticas para familias sen elevado poder adquisitivo

9) En canto á administración político-administrativa do Estado, que servizos prestan as administracións rexionais?

- Educación
- Sanidade
- Aprobación de leis
- Xustiza
- Traballo



### CIENCIAS SOCIAIS

1) Canto as revolucións ocorridas entre 1770 e 1870, os revolucionarios esixían que o éxito e a promoción social debían depender de:

- Os dereitos adquiridos ao nacer
- Os actos de valía
- O mérito e o traballo
- O éxito empresarial alcanzado

2) En relación á revolución, foi necesario separar o poder executivo, lexislativo e xudicial para garantir os dereitos humanos? Por que?

3) Di se son verdadeiras ou falsas as seguintes afirmacións:

	Verdadeiro	Falso
A restauración do absolutismo acabou coas ideas da revolución e a súa expansión internacional.	<input type="radio"/>	<input type="radio"/>
A Santa Alianza permitía aos membros prestarse axuda mutua en caso de revolución.	<input type="radio"/>	<input type="radio"/>
A burguesía non tiña influencia política.	<input type="radio"/>	<input type="radio"/>
A revolución de Estados Unidos demostrou que as ideas da Ilustración podían poñerse en práctica.	<input type="radio"/>	<input type="radio"/>
Napoleón Bonaparte foi nomeado cónsul por decisión democrática.	<input type="radio"/>	<input type="radio"/>
Francia voltou aos seus límites de 1791 e as potencias vencedoras repartíronse os territorios consonte os seus intereses sen ter en conta as aspiracións de ditos pobos.	<input type="radio"/>	<input type="radio"/>

4) Con respecto á Guerra Civil en España, asocia estas repercusións sociais, segundo o bando:

	Unión das forzas políticas na Falanxe Española Tradicionalista.	Forte anticlericalismo e división entre anarquistas e comunistas.
Zona republicana	<input type="radio"/>	<input type="radio"/>
Zona nacional	<input type="radio"/>	<input type="radio"/>

5) En que ano se produciu a liberación de Europa occidental tras o desembarco de Normandía durante a Segunda Guerra Mundial?

- 1944
- 1904
- 1974
- 1492

6) Como se lle chamou á liña imaxinaria que se extendía dende la desembocadura do río Elba ata a cidade de Treste, que dividía Europa dous bloques capitalista e comunista?

- Trópico de Cáncer
- Telón de papel
- Telón de aceiro
- Meridiano de Greenwich

7) Di se esta afirmación é verdadeira ou falsa e explica a razón brevemente: Durante o período franquista en España dende 1960 a 1975, numerosos intelectuais voltaban a España para exercer o seu traballo anterior.

8) Di se son verdadeiras ou falsas as seguintes afirmacións:

	Verdadeiro	Falso
A Unión Europea é un conxunto de nacións soberanas e independentes que delegan parte da súa soberanía a institucións comúns.	<input type="radio"/>	<input type="radio"/>
Euratom e a CEE creáronse en 1957 polo tratado de Roma.	<input type="radio"/>	<input type="radio"/>
Unha característica común da política da Unión Europea é eliminar aranceis dentro dos estados.	<input type="radio"/>	<input type="radio"/>
A iniciativa europea de capitais culturais consiste en indicar en que cidades europeas se poden realizar uns Xogos Olímpicos.	<input type="radio"/>	<input type="radio"/>

9) Que país da UE ten un maior número de rexións de converxencia ou rexións menos desenvolvidas?


- Italia
- Francia
- España
- Polonia

10) Que consecuencias se derivan para España nas últimas ampliacións comunitarias?

- Incremento da inmigración
- Prezos máis baixos
- Aumento de axudas europeas
- Redución de axudas europeas

# APPENDIX B

## TASKS



### Task 1- PRESENT A GLOG

Since September, we have been studying and practising descriptions and lexicon related to city life (transport, buildings, shops...) and you are now studying the service sector in Social Science.

Have a look at this GLOG for a couple of minutes and present the main elements you can see in it (5 minutes).

Useful tips:

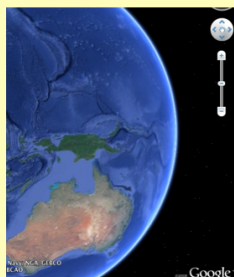
- 1) Use connectors: *firstly, secondly, finally...*
- 2) How many elements can you see in the glog?
- 3) How many means of transport can you recognise?
- 4) Can you name other means of transport?
- 5) Do you like it? Why?
- 6) What would your glog be like?

### Task 2- NATURAL DISASTERS



Choose a disaster-related pic and do an interview role-play activity in which one of you will be a correspondent and the other(s) the victim(s). The correspondent will use a template of basic questions to elaborate on: **What can you see?, What has happened?, What's happening now?, How do you think the people feel? and What's going to happen next?.**



**Task 3- PRESENT A GOOGLE MAP**

Each of you will present the GMap elaborated in the Social Science class, using the template given in the English class. Remember that you have geolocated products on the map through different gmarkers showing information including: name and brand of the product, basic geographical data (size, population and capital city).

**Task 4- DIALOGUE ON THE SECOND WORLD WAR**

This semester you have studied the Second World War in the Social Science class and done a couple of projects about it in the English class. You will now act out a dialogue over the reasons, the countries involved, the Holocaust, Nazism and the consequences. You will use the template provided and the visual support in the interactive whiteboard.