

Master's Dissertation/
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TWO MAIN CHALLENGES IN CLIL IMPLEMENTATION: CONTENT LEARNING AND TEACHER EDUCATION

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Abstract

This thesis aims to analyze Content and Language Integrated Learning (hereafter, CLIL) methodology and to discuss controversies regarding bilingual education focusing on CLIL instruction. Two main topics are specifically considered; the extent of the impact of CLIL on content subject and teacher education for CLIL. Is content learning negatively affected as a result of being taught through the medium of a foreign language? Are teachers prepared for CLIL both in linguistic and methodological terms?

These are two of the main concerns about CLIL parents and teachers have. This study will try to shed light on both questions through a comprehensive and updated analysis. Finally, some main conclusions regarding these two concerns are drawn along with possible solutions.

Key words: bilingual education, CLIL, content learning, teacher education.

Resumen

Esta tesis tiene como objetivo analizar la metodología de Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (en adelante, AICLE) y discutir las controversias con respecto a la educación bilingüe, centrándose en la instrucción AICLE. Se consideran específicamente dos temas: el alcance del impacto de CLIL en la asignatura de contenido y la formación del profesorado para AICLE. ¿Incide negativamente en el aprendizaje de contenidos el que la enseñanza se imparta en una lengua extranjera? ¿Están los profesores preparados para AICLE, tanto en términos lingüísticos como en metodológicos?

Estas son dos de las principales preocupaciones sobre AICLE que padres y maestros tienen. A este respecto, este estudio intentará arrojar luz sobre ambas cuestiones a través de un análisis completo y actualizado. Finalmente, algunas de las principales conclusiones sobre estas dos preocupaciones son extraídas junto con posibles soluciones.

Palabras clave: educación bilingüe, AICLE, aprendizaje de contenidos, formación docente.

1. INTRODUCTION

Content and Language Integrated Learning is a relative novel phenomenon which has spread quite fast in the European scene. This is one of the main reasons why it is still not fully investigated. The relative novelty of the approach might thus give way to concerns regarding its methodology. Concerns are gradually diminishing, however, and nowadays they are not as high as they were when CLIL emerged some decades ago. These concerns should be dealt with so that misunderstandings or misconstrued perceptions are clarified.

The thesis focuses on two main CLIL topics which are the ones I believe society (understanding it as parents of students and the teachers themselves) is more worried about. The extent to which content learning is acquired in CLIL contexts, and requirements in terms of teacher training for guaranteeing the success of CLIL. The loss of content learning or the fact that the foreign language could make content more complicated are the most feared aspects voiced by families in relation to content subject. They also ask for more support and guidelines on content learning in CLIL. Regarding teaching education, the knowledge, skills and qualities teachers need to cope with CLIL challenges are mainly considered. Teachers' perceptions are taken into account as well, due to the fact that they are a key element in the teaching process. Knowing the main weakness of teacher preparation for CLIL implementation could lead to improvements in this area.

During the bibliographic search process, the information was obtained from different sources; including Google Scholar, Dialnet and Scopus. The number of studies retrieved was not high, especially regarding content acquisition due to the fact that research has been mainly focused on language learning. This means that investigators and even teachers should continue to explore learning in CLIL situations.

Through the bibliographical revision, this thesis will try draw conclusions regarding these two controversial issues. It is understandable that parents have concerns about their children's learning and the influence foreign language could exert on content achievement. Perhaps the most immediate reaction is to complain about the CLIL program and blame teachers for their children's failure. We, teachers, should be prepared for this, which is unfortunately very common in our daily practice, and have

the necessary tools and training to stand up for CLIL when families raise doubts about it. Problematic situations and misconceptions are best addressed when arguments are based on contrasted research and when families' and teaching staff's opinions are taken into account. The support of the educational authorities will also be fundamental for the effectiveness and success of the CLIL program.

2. CONTENT AND LANGUAGE INTEGRATED LEARNING

2.1 CLIL and its origins

Before starting discussing some of the most important CLIL challenges, it is essential to explain what CLIL is and where it comes from. Over the years, there have been different definitions for the concept CLIL. CLIL is a recent phenomenon that originated in the 1990s. The term was actually coined in 1994 and launched in 1996 by UNICOM, the University of Jyväskylä (Finland) and the European Platform for Dutch education (Pérez Cañado, 2012). An initial conception defined CLIL as a “double-focus” with balance between content and foreign language. The subject or topic, and the language are the two main aims of CLIL (Marsh & Langé, 2000). According to Mehisto et al. (2008), a decade later, the pillars of CLIL increased to three: content, language and learning skills, i.e., CLIL turned into a “triple-focus” approach. In this sense, learners can continue their academic and cognitive development while acquiring language proficiency. All these changes in CLIL perception and lack of precision or characterization of the concept leads to define it as an umbrella term, “a dual-focussed education approach in which an additional language is used for the learning and teaching of both content and language” (Marsh & Langé, 2000, p. 2). CLIL has thus become an innovative methodological approach, which combines content and language learning. However, the foreign language is used as a tool and for a purpose, rather than an end in itself (European Commission, 2005). Therefore, the umbrella term is the most distinguished definition to CLIL since it is a new approach to education, which complies with EU policies.

Coyle affirms that CLIL takes place as the result of the integration of four main blocks: content (subject matter), communication (language learning and using), cognition

(learning and thinking processes), and culture (intercultural understanding and global citizenship), which is what she refers to as the 4 C's framework (Fig. 1) (Coyle, 2007; Coyle et al., 2010). CLIL integrates content and language learning paying attention to the context in which it takes place and these interrelated elements. All these principles are the ones which differ CLIL from other types of bilingual approaches.

- Figure 1:

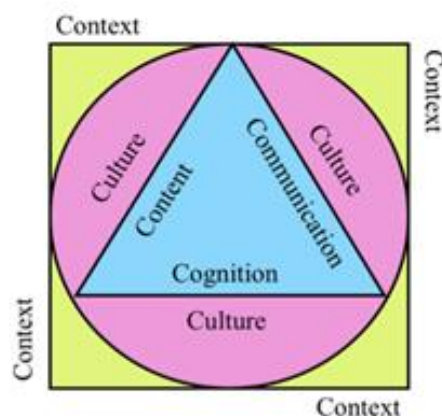


Fig. 1. The 4Cs Framework for CLIL (Coyle et al., 2010)

In line with the constructivist principle, CLIL also involves students becoming more active, participative and autonomous; that is, there is a positive change, which leads learners to be the protagonists of the learning process (Pérez Cañado, 2018a) and at the same time, they are given the opportunity of learning a foreign language in a meaningful and contextualized way. In the process of learning, thinking processes become important. Students must be cognitively engaged when learning in second language if content learning is to be effective. Different authors (e. g., Coyle, 2007; Coyle et al., 2010) consider necessary to make use of taxonomies of cognitive dimensions since only the activation of complex cognitive process will lead students to learn. CLIL teachers can use those taxonomies as references in order to become aware of and evaluate the cognitive processes developed by students in CLIL instruction. CLIL teachers should favor cognitive development alongside with assuring that students achieve a good command of the foreign language in order to develop cognitively. They should propose cognitive challenges to the students, such as solving problems, transforming information, learning new meanings, and constructing knowledge that require the stimulation of higher order thinking skills in students, which are the ones that lead to deep learning. Bloom's taxonomy (1956) (Fig. 2) is one of such frameworks

which serve to guide teachers in the planning of the lessons. It includes six integrated thinking skills classified from lower to higher thinking skills (Coyle et al., 2010). This taxonomy was later revised and modified by Anderson and Krathwohl (2001). Among the most important differences, we could mention that the classification was updated substituting nouns for verbs and meta-cognition was stressed.

- Figure 2:

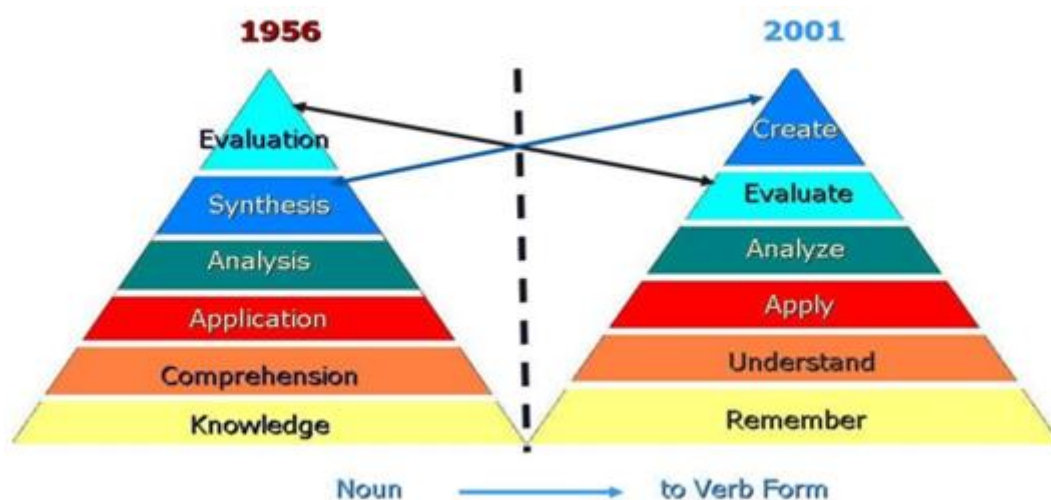


Fig. 2. Bloom's Taxonomy (Bloom & Krathwohl, 1956) and Bloom's Revised Taxonomy (Anderson & Krathwohl, 2001) (Santo-Tomás González, 2011).

The interrelationship between content and language is visible through the Language Triptych (Coyle et al., 2010). It analyses language needs to support content learning. The triptych (Fig. 3) presents three dimensions of language in CLIL: language of learning, language for learning and learning through learning. The language of learning pays attention to the basic concepts and skills related to the content; that is, the language specific to the subject. The language for learning refers to language related to learning strategies and skills. The language through learning is based on the unexpected aspects and use of the language that emerges in spontaneous situations.

- Figure 3:



Fig. 3. The Language Triptych (Coyle et al., 2010)

2.2 CLIL controversies

After an initial period of enthusiasm with and idealization of CLIL (Bruton, 2013), a more critical attitude has emerged in the past few years. Debates, contradictory evidence and controversy appeared around CLIL. Thus, CLIL moved from being depicted as a success story to being characterized as a source of problems. Moreover, its rapid spread in the recent years has not been totally supported by research and investigated (Coyle et al., 2010).

Perhaps elitism in CLIL is one of the most frequently voiced criticism. Critical authors argue that CLIL is discriminatory, as it avoids diversity, only works in elitist contexts, is implemented selectively, and with the brightest or highest achievers (Paran, 2013). In the words of Bruton (2013, p. 595) "CLIL is likely to be elitist and cream off certain students". In a prior study, Bruton (2011b, p. 526) made mention of the research of Ruiz de Zarobe and Lasagabaster (2010) that conclude, "Admission into CLIL classes is voluntary, but selective". Broca (2016) affirms that CLIL is selective and excludes the less academically able students or the ones with lower grades. It has also been argued that CLIL includes only the more academically motivated students (San Isidro, 2010; Ruiz de Zarobe & Lasagabaster, 2010). All these reasons lead some authors to argue that CLIL is selective in some way or another and students' higher grades are due to the factors mentioned above and not due to the CLIL program. The research results

concerning elitism in CLIL tend to be mixed and even contradictory. The studies by Pérez Cañado (2012, 2020) review the previous claims and show that “CLIL is no longer an elitist approach in our country” (Pérez Cañado, 2012, p. 327). For instance, in Andalusia, there are no admission criteria or entry requirements for CLIL; it is open for everyone. Coyle et al. (2010) also emphasize the inclusion and equity of CLIL.

Casal and Moore (2009) argue that bilingual sections are egalitarian, but social class and parental choice influence in the participation in bilingual programs. Hüttner and Smit (2014) argue that CLIL does not benefit certain socio-economic groups, as CLIL students tend to have a higher economic status. Additionally, students with lower socioeconomic status are the ones with lower scores (Barrios & Lara, 2018). On the other side, PISA report stressed the importance of socioeconomic factors in learners’ educational achievement (OECD, 2016). Moreover, it seems that the socioeconomic level positively influences motivation, attitudes, and expectations towards learning (Madrid & Barrios, 2018). Coyle (2010) states that CLIL can work equally successfully with all students irrespective of the social background, and Pérez Cañado (2020, p. 12) concludes that “it works even in the most socio-economically deprived contexts”. In this respect, Rascón Moreno and Bretones Callejas (2018) show that the performance of CLIL students in the second language does not vary depending on their parents’ education level. On the contrary, some recent studies provide different results. Martínez Agudo (2020) states that parental education affects students’ results; in fact, students whose mothers had higher educational level performed better in the study, independently of being in CLIL or non-CLIL classes. Pérez Cañado (2020) maintains that parents’ educational level directly influences students’ academic achievement; but this happens not only in CLIL contexts, but also in non-CLIL contexts. A study performed by Madrid and Barrios (2018, p. 44) also concluded that “Socioeconomic status cannot be regarded as the cause of the differences detected between both CLIL and non-CLIL learners”. This means that the positive results of CLIL students is not due to their social class, socioeconomic level, or parents’ choice. The success is attributable to their participation in CLIL program.

It is also argued that CLIL and non-CLIL students’ differences existed from the start or even before they entry into the program since. Factors, such as motivation, proficiency, or attitude should be considered (Broca, 2016). Most of the repeating students or students with low grades are in non-CLIL programs, whereas in the CLIL

program, students have higher results and outperform their counterparts (are one or two grade levels ahead), so they did not start with the same percentage averages (Bruton, 2011a). As Broca holds (2016), CLIL programs exclude students with lower grades in previous years. The study by Navés and Victori (2010) showed how CLIL group started with an academically advantage that was maintained, but not increased (Bruton, 2011a). Therefore, in order to better interpret results when CLIL and non-CLIL groups are compared, studies should provide initial baseline data for the two groups in order to know the starting point or initial scores of each group, or what Bruton (2011a) denominates “the point of departure”. For this reason, further investigations concerning the impact of CLIL is required since only if groups are comparable before their CLIL experience the results contrasting both groups of students will be reliable and accurate.

2.3 Bilingual Education and CLIL in our context

In 1995, the European Commission established the need to communicate in at least two languages of the European Union, apart from the mother tongue (Del Puerto & Gómez, 2009). Canadian immersion programs reported advantages in language learning and, for this reason, these previous experiences and results were used for the design of programs in Europe (Ruiz de Zarobe & Catalán, 2009). The growth of bilingual education entails a change in education; Europe needed a restructuring of language learning and an educational model that ensured proficiency in several languages. It is in this moment when CLIL emerged. CLIL shares some features of other bilingual programmes. However, it was not just an offshoot, but a recognized trend in foreign language teaching (Pérez Cañado, 2012). CLIL differs from other bilingual programs in the moment when it appeared, the place where it is being implemented, and the goals it pursues. All these distinct features make CLIL an attempt of a better language education in 21st century (Lorenzo, 2007). Additionally, as Coyle et al. (2010, p. 45) state, what differentiates CLIL from other prior bilingual education initiatives is its “planned pedagogic integration of contextualized content, cognition, communication and culture into teaching and learning practice”.

CLIL gradually gained importance, especially in the last two decades, and became an established teaching approach across Europe (Järvinen, 2006). At present, CLIL is

being implemented in almost all the educational systems of Europe. Already in 2004, some form of CLIL in mainstream education was employed by 80% of the member states of the European Union (Eurydice, 2006). It was not until the year 2005 when the European Council recommends the adoption of CLIL in the entire European Union (European Commission, 2005). Different countries are at different stages in the implementation of CLIL methodology. Nowadays, the new teaching and learning pedagogies serve the demands of a multilingual population and linguistic diversity in the classrooms better. As European Commission (2017) mentions, in addition to the first language, European students should learn two or more languages, although the learning of a second language should be optional and learners should feel free to choose it or not.

The demand for CLIL in Spain has gradually increased. Coyle (2010, p.viii) has underscored “Spain is rapidly becoming one of the European leaders in CLIL practice and research”. Each autonomous community chooses the education plan, since education is decentralized and CLIL initiatives of various kinds have been also adopted (Bruton, 2011a). The LOMCE established that the admission criteria have to be the same in the entire country and students’ language skills could not be a prerequisite of admission. The expansion of CLIL is often attributed to the deficient language proficiency levels generally obtained in Spain. According to the European Commission (2005) foreign languages learning has not been a strong point in the entire Spain. Eurobarometer surveys (European Commission, 2005, 2012) showed the negative results in our country; perhaps, the lack of tradition of bilingual education in monolingual communities could be a cause.

The Andalusian Plan for the Promotion of Plurilingualism (APPP) was passed by the Andalusian Parliament in 2005 as an important language policy action. The APPP supported bilingual education, aimed to improve the mother tongue skills and to promote plurilingualism. Its main aim was to improve the Linguistic Competence of the Andalusian citizenship. In 2006, the APPP won the European Language Label award for its contribution to multilingualism. CLIL was the bilingual approach adopted by the education authorities 12 years later in the Andalusian Strategic Plan for the Development of Languages (ASPDL). In language terms, both plans have promoted progress in this community. According to Ministry of Education, Culture and Sport (MECD), Andalusia is the community with higher number of bilingual centers and

bilingual students. Moreover, the Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis carried out by Lancaster (2016) showed considerable progress in the implementation of bilingual education in Andalusia. The study by Lorenzo et al. (2009) also showed positive results. In our autonomous community, there is no admission criteria for CLIL, as it is open to all pupils and there is no pretesting or admission criteria. Subjects taught in the foreign language vary between countries, regions, and even schools. They are also different between Primary and Secondary Education (Eurydice, 2006). Generally, in Europe, the most frequent subjects taught in Secondary are Science and Social Science. Some countries also include Physical Education and Artistic subjects. In Primary, the most common subjects are artistic, physical education and environmental activities. Regarding the time devoted to CLIL lessons at schools, variation also exist across schools in terms of number of lessons, subjects, lesson time, etc. In general, it is 7-9 hours a week in Pre-school, 9-12 a week (depending on the stage) in Primary, and on average, 11 hours a week in Secondary (Eurydice, 2006). In this respect, the Instructions of May 15th 2019 (Instrucciones de 15 de Mayo de 2019) regulate the organization and functioning of bilingual education in Andalusia. It establishes that, in Secondary Education, the subjects that are to be taught in the second language could be Geography and History, Biology and Geology, Physics and Chemistry, Math, Physical Education, Art, Visual and Audiovisual Education, Music, Technology, and Citizenship Education. In Primary Education, the obligatory subjects to be taught in the foreign language are Natural and Social Sciences, although if the school has the necessary resources, it could also be taught other subjects, such as Citizenship Education, Digital Culture, Physical Education, and Art Education. The percentage of non-linguistic area taught in second language is between 50% and 100%, in that way, the most percentage, the better.

In summary, since CLIL emerged in 1994 it has been gaining relevance and different definitions have been proposed. It is evident that CLIL represented a change in education in terms of language and content teaching and learning. Among the most important beneficial effects from adopting CLIL it could be underlined the incidental learning and cognitive benefits on students (Barrios & Lara, 2018; Lorenzo et al., 2009). All in all, over time, CLIL has become a very useful approach which motivates students (Ruiz de Zarobe & Lasagabaster, 2010) and it seems like “CLIL is here to stay” (Deller, 2005, p. 29).

3. CONTENT LEARNING

3.1 To what extent does content learning take place in CLIL?

As European Commission (2017, p. 16) establishes and we previously discussed, “Content and Language Integrated Learning (CLIL) is a teaching method that provides additional teaching in foreign languages without increasing the overall instruction time, or taking away lessons from other curriculum subjects”. This way, the main goal of CLIL is to integrate and improve both content and language by enhancing language learning with no cost or damage to content development. If language and content are not integrated appears a situation called sink or swim in which students could either adapt to the new language or get lost and abandon the program as a consequence (Junta de Andalucía, 2019). Although, content learning is the primary goal and language learning is the secondary one (Järvinen, 2006), both are taught simultaneously and integrally, which means support on foreign language learning is necessary in order to acquire content successfully. Lim (2008) argued that in content subjects, “English is an obstacle, and is also considered as such” (p. 5). Clegg (2001) emphasized that if students are not prepared and trained in the foreign language, it will negatively affect their grades. In the same vein, Roussel et al. (2017, p. 77) held that “learning in a foreign language without any language instructional support provides no advantage to content learning”. Therefore, this issue turns into one of the greatest challenges in CLIL considering that if students have serious difficulties with the target language failure and deficiencies in the acquisition of content could occur. The aim, however, is that students achieve a functional competence of the language, rather than achieve a (near) native-like competence (Muñoz, 2002).

The corpus of available research relevant to the discussion of the balance between content and language learning in CLIL is relatively limited. Studies on CLIL usually focus on language learning, while content learning in CLIL has been largely neglected (Fernández-Sanjurjo et al., 2017). Furthermore, conclusions from some studies are contradictory and show disagreement on students’ results. Some studies provide evidence of the success in CLIL content acquisition (Hüttner & Smit, 2014; Dalton-Puffer et al., 2014), while others express concern about the loss of content learning (Bruton, 2013; Cenoz et al., 2013).

It is argued that several factors influence the acquisition of academic content in CLIL; these factors should be well-known in order to understand the real results of CLIL. One such factor is the cognitive overload; some studies affirm that teaching academic content through a foreign language negatively affect content learning outcomes and achievement since the cognitive load of learning two subjects at the same time is higher than learning them separately (Piesche et al., 2016). Various experiments were carried out by Roussel et al. (2017) that show that content is better learnt in the mother tongue; on the contrary, when the language of instruction is a foreign language, the cognitive overload has negative consequences for content learning. On this matter, Bruton (2011a) holds that the foreign language influences the difficulty of the content, the learning of which is negatively affected. If the content is difficult, the foreign language could make learning even more complicated. In a later study, Bruton (2013) also affirms that if the content is unfamiliar or difficult, the language instruction could contribute to make it even more unclear to students. He goes beyond and affirms that the two (language and content) in one perspective is not real because of CLIL disintegrates or divides, rather than integrates. According to Coyle (2010), students have to receive additional foreign language classes to support the language employed in the subject content learning which is unknown to them so that the cognitive load that represents learning in a foreign language can be reduced. Along the same lines, Bruton (2011b) explained that the differences between CLIL and non-CLIL streams could be because of the more exposure of English the CLIL group receives (200, 300 and 400 hours more by the end of each grade).

Socioeconomic factors could also be a factor that influences students' content acquisition in CLIL contexts, as students seem to perform differently according to their status. For instance, the study by Fernández-Sanjurjo et al. (2017) establishes that bilingual students with medium or high socioeconomic status obtained similar results than non-bilingual students, while students with low socioeconomic status obtained lower results. Fernández-Sanjurjo et al. (2018) found similar results in Primary Education, where students from more privileged socio-economic backgrounds obtained higher scores than those coming from less privileged settings. The study conducted by Anghel et al. (2016) also underscores the negative effects in the content subject learning of CLIL Natural and Social Sciences depending on the educational level of parents. When parents are less educated, the students' performance is also lower. Therefore,

parental education level seems to directly affects the students' educational achievement according to this strand of research.

Other studies have also on the influence of social context and school setting in the students' performance. This is the case of the study by Madrid and Barrios (2018), who provided data on the differences between CLIL public schools and non-CLIL charter schools that showed that results are not different in Natural Sciences in Primary, while in Secondary non-CLIL charter schools exceed the CLIL public schools results.

In some studies the importance of giving time to students in CLIL content acquisition is stressed. As Coonan (2007) held, it should not be easy to progress in the foreign language and content at the same time. Therefore, the acquisition progress is usually slower due to the special attention that the second language requires. It is also necessary to slow the pace of teaching through repetitions and engaging materials when the content is new or more difficult. Moreover, it is also argued that in CLIL contexts more input is needed to obtain the same results (Admiraal et al., 2006; Dallinger et al., 2016).

On the contrary, these factors do not always influence negatively in academic content acquisition in CLIL; they could also show positive results. For instance, Rascón and Bretones (2018) found contradictory results as they measured the socioeconomic status and parents' educational level and concluded that they did not influence in the subject content achievement or the results obtained by students. Regarding school setting and social context, Pavón Vázquez (2018) conducted a study where found that CLIL worked equally in urban and rural context. Moreover, Pérez Cañado (2018a, 2018b) showed that students in public and private CLIL schools outperformed students in public non-CLIL schools in Natural Science. Additionally, the study by Madrid and Barrios (2018) demonstrated that the factors previously mentioned are not decisive in the differences of CLIL, since CLIL is by itself the unique responsible factor for the success of the CLIL program. Rascón and Bretones (2018) also concluded that the difference in content and language achievement results in Secondary Education are due to the CLIL program. Furthermore, there are other studies, such as the one by Pérez Cañado (2018b), which defuse fears about CLIL and evidence its positive impact; in her words "CLIL is not watering down content learning" (p.18). Pérez Cañado (2012) in a prior study demonstrated that the use of CLIL is beneficial since the assimilation of

content through a foreign language does not interfere in the learning of such content to a large extent. Thus, rather than being a hindrance, the foreign language processing actually has a strong potential for the learning of subject-specific concepts. Later, Ruiz de Zarobe and Celaya (2011) observed that the exposure and instruction in foreign language improved the students' outcomes, both in CLIL and in non-CLIL classrooms, so content subject learning does not suffer. It is also believed that learning could be more successful due to the fact that students must work harder to decode the foreign language (Marsh & Langé, 2000). Therefore, foreign language learning facilitates the acquisition of content subject matter (Junta de Andalucía, 2019).

The study by Coonan (2007) indicated that CLIL does not simplify the learning objectives, quite the contrary; it increases the cognitive complexity and flexibility in content and language integration. Coyle et al. (2010) established that CLIL stimulates the cognitive flexibility which leads students to acquire content at the same pace or even faster than non-CLIL students. Dalton-Puffer et al. (2009) considered that CLIL involves a greater processing in students which leads to increase a better learning of the subject matter as a consequence. Meyer (2010) affirms that CLIL contributes in the improvement of cognitive development and learning of content: greater creativity, semantic scaffolding, divergent and convergent thinking, metalinguistic awareness, abstract and symbolic reasoning, and context understanding. Thus, CLIL seems to have positive repercussions on subject matter acquisition.

The research of Stehler (2006) found that students in CLIL and non-CLIL program did not show significant differences regarding the subject content knowledge acquisition. Madrid and Barrios (2018) found in their study that although results are mixed, at the end of Primary, both groups CLIL and non-CLIL, obtain similar results, so content learning is not negatively affected. The study carried out by Casal and Moore (2009) also demonstrates the benefits and gains of content learning in students. In the same way, the results of Pérez Cañado (2018b) showed that students who receive Natural Science in the foreign language outperform the ones who receive it in the mother tongue. In fact, the Bilingualism Report (Junta de Andalucía, 2019) establishes that the bilingual program does not affect the learning of other subjects in Primary Education neither do in Secondary Education and the results among bilingual and non-bilingual students do not show significant differences.

Concerning its benefits, it is important to mention that different studies demonstrated that content learning benefits become noticeable over time. As Pérez Cañado (2018b) contended, positive effects in Primary are harder to observe, since they are clearer in the long term, after years of CLIL learning, that is, at the end of Secondary Education. This is observed in the study conducted by Madrid (2011), since students in Primary Education did not show significant differences regarding content learning while the CLIL students in Secondary education performed higher than the non-CLIL counterparts. Moreover, Martínez Agudo (2020) carried out a study which revealed that CLIL students learn the same subject content than their peers in Primary Education, while in Secondary they significantly outstrip their non-CLIL counterparts.

In short, further investigations regarding the potential beneficial effects from adopting CLIL for acquiring content is necessary in view of the contradictory results reported to date, since some studies demonstrate that students sometimes match or even exceed their counterparts, whereas others affirm that content learning can be reduced or hampered as a consequence of the use of a foreign language as medium of instruction. As Dallinger et al. (2016, p. 23) contend, “the effects of CLIL on achievement in the content subject remain unclear”. Moreover, a closer attention should be paid to Andalusia, as the CLIL tradition is much more recent since it is a monolingual community (Ruiz de Zarobe & Lasagabaster, 2009, 2010). It is important to consider the several factors which could differentiate CLIL and non-CLIL students as they could affect CLIL learning and influence its acquisition, such as the ones we cited above: parental education, socio-economic level, students’ motivation, among others, as well as the use of similar instruments to assess content learning so that results are easier to compare.

3.2 Stakeholders’ perceptions on content learning in CLIL

Apart from the factors previously mentioned, it is important to involve the different stakeholders and consider their opinions as they are an important part in the content acquisition progress. We need to know parents’ concerns and beliefs, and students who are the target group but sometimes the less listened ones, in order to handle and guarantee success in CLIL.

Regarding parents, they are, in general, satisfied with the CLIL programme (Pérez Vidal, 2013). Although the lowest educated parents are the most satisfied with the CLIL program, Barrios (2019) found that they were aware that their children were experiencing difficulties with subjects taught in English. As Mehisto and Asser found (2007), there are some parents who are worried regarding the negative effect the foreign language could have on the content learning. According to Hajer (2000), parents and teachers have the same concern regarding the possibility that the students' knowledge, skills, and understanding of the content subject will be affected by learning in a foreign language; this was the reason why teachers reduced or simplified content so as to facilitate comprehension of content delivered in the foreign language. An added difficulty is that related to homework, since some parents feel they cannot help their children due to the foreign language (Barrios & Lara, 2018; Bruton, 2013). Education level has an important role in the parents' perceptions regarding their own ability to help their children. It is one of the largest complains of the lowest educated parents who are the ones who demand Spanish support and information in CLIL materials (Pérez Cañado, 2018b; Barrios, 2019). Despite the fact that they are not able to support their children with their homework, their support to the CLIL program is high (Barrios, 2019). As Pérez Cañado (2020, pp. 12, 13) mentioned, "a particular pedagogic focus might also be on how to provide support for parents with little insight into bilingual education in order to promote awareness of its potential advantages".

With respect to students, in the research conducted by Dalton-Puffer et al. (2009) comparing a CLIL to a non-CLIL program, it was found that in the first one teachers prepare lessons in more detail than in non-CLIL. In the same study, it is revealed that CLIL students have different opinions regarding the effects on subject knowledge; half the students thought they learnt less content due to the foreign language, although 20% expressed the opposite. In the study carried out by Broca (2016) CLIL students believed they will learn more foreign language, but less content as a consequence. However, the perceptions they show in the study by Barrios (2019) is that all the content taught is covered in the assessment. The Bilingualism Report (Junta de Andalucía, 2019) collects the students' perceptions regarding if the learning of content subjects is reduced as a consequence of the foreign language, 69% thought it is not reduced, 27% thought it is a little reduced, and only 4% thought it is reduced a lot, that is, most students do not think that content gets reduced in CLIL. In general lines, students are motivated and engaged

in the learning of CLIL (Lorenzo et al., 2009); in the study by Lancaster (2016) students even mentioned that the extra workload in CLIL is worthy.

Finally, Lorenzo et al. (2009) conclude that was consensus among the different stakeholders, who affirmed that CLIL is beneficial. However, it is obvious we need to provide additional support to the most disadvantaged families since some parents are not economic or academically prepared to help their children (Barrios, 2019; Martinez Agudo, 2020).

To sum up, parents' and students' perceptions regarding content learning in CLIL has changed over time. Their point of view is more optimistic now as most of them have come to recognize that content learning is not negatively affected by the CLIL program (Pérez Cañado, 2018b). Despite this, there are some aspects that cause families concern, such as the use of the foreign language in content teaching or their incompetence to help their children with their homework. All in all, the need for research must be emphasized as there are some issues areas where investigation is still required.

4. TEACHER EDUCATION FOR CLIL

4.1 Teacher Education for CLIL: Why is it necessary?

The requirements of any teacher are high, but if we compare the monolingual teachers with the bilingual teachers, it seems clear than the number of responsibilities that have to be assumed by the latter are more and more complex (Benkő, 2015). Different publications have exposed their results regarding the need of teaching education to train specialized and qualified teachers (Hillyard, 2011; Escobar Urmeneta, 2013; Pérez Cañado, 2014, 2016). As noted elsewhere in this thesis, several results show the success of CLIL, but it cannot be forgotten the need for teacher education so that teachers feel confident while they implement a CLIL approach. CLIL places new and more demands on teachers who have to face a greater number of challenges. Since CLIL was introduced, the number of conferences and workshops of CLIL experts have increased throughout the years across Europe. However, the need of training is still required; in the words of Ruiz de Zarobe and Catalán (2009, p. 15) "Pre-service training

is practically non-existent and the type of in-service training detected is not enough”. In the study by Pokrivčáková (2015) the weakness in teacher training after nearly fifteen years of CLIL implementation in Slovakia is also mentioned.

Bruton (2011b, p. 531) described as alarming the fact that teachers that adopt CLIL have a very limited training in the foreign language content teaching, and sometimes limited foreign language ability. According to Pérez-Cañado (2016), second language training is the fundamental area in which teachers need more training. CLIL is an approach which implies that teachers will normally be non-native speakers of the target language. It means that teachers are not native teachers of the language they teach in but ordinary classroom teachers and, as a consequence, imperfect communicators in the foreign language. De Graaff et al. (2007) question how a CLIL teacher, non-native of the foreign language and without background in language pedagogy, could successfully teach CLIL to students. As Deller (2005) differentiates, there are two types of teachers; the foreign language teacher who knows the language and how to teach the subject in the target language; and the subject teacher who does not know how to teach the subject in the foreign language and has to adapt to it. It would be ideal that both teachers were together during CLIL. However it is not usually financially and logistically possible. In CLIL, the majority of teachers are subject specialists without formal qualifications in the target language and/or language pedagogy (Dalton-Puffer et al., 2009, p. 20). In our context, content teachers teach the non-linguistic subjects in the foreign language (be it English, French or German) and the mother tongue (Instrucciones de 15 de Mayo de 2019). At the same time, content teachers are considered the ones with the highest training needs (Pérez Cañado, 2016). In fact, alongside with teaching qualification, the requirement of certified evidences of teacher particular CLIL skills is only required in a minority of countries (Eurydice, 2006). However, it is required for the teacher to be familiar and fluent in both languages of the program, the mother tongue and foreign language. Training to be competent in the target language is essential so that teachers can promote content learning in a non-native language. Benkő (2015) reported that in the Czech Republic, the importance of qualified content teachers in the foreign language is collected in the national plan for education in accordance with the *Action Plan on Language Learning and Linguistic Diversity 2004-2006* (Commission of the European Communities, 2003).

It would be very positive that CLIL teachers would be familiar with the methodology of CLIL and have a good command of the subject and language taught (European Commission, 2017). Nevertheless it is not the case. As a consequence, teachers need to participate in training courses to upgrade their foreign language proficiency level and their methodological skills. A clear example of lack of language proficiency appears in the study by Dalton-Puffer et al. (2009) which is carried out in an Austrian secondary school where teachers are allowed to make grammatical mistakes, as far as they make themselves understood. In the study by Lancaster (2016) the majority of teachers (32%) have a low level of foreign language proficiency, a B1, which is considered an “adequate level of English” (p. 153). In the study by Lorenzo et al. (2009) teachers do not feel secure about their English level and fluency due to the fact they do not surpass a B2. Some experts argue that a certain threshold proficiency level is necessary so that teachers could operate effectively in the foreign language (Dalton-Puffer et al., 2009). It could be the reason why Hillyard (2011) suggests teachers must have a C2 level in order they could use English at every moment. According to Pérez Cañado (2016), the linguistic aspects in which more training is needed are: pronunciation, listening and everyday language classroom; that is, BICS (Basic Interpersonal Communication Skills). In a later study, Pérez Cañado (2017) also mentioned the importance of CALP (Cognitive Academic Language Proficiency) (Cummins, 1999). Moreover, Dale and Tanner (2012) suggest that using their language skills, teaching in the target language and attending to language development courses, are different ways that help teachers to become more fluent and improve their language skills. Additionally, De Graaff et al. (2007) indicated that for the effective language acquisition in CLIL, attention should be paid to functional communication, form and meaning, and corrective feedback. We could not forget that apart from the CLIL teachers, CLIL programs in our context count with the support of the native-speakers language assistants. In fact, the study by Bruton (2011a) affirms that the language assistants have to support the limited foreign language employed by content teachers, who tend to use the mother tongue. In the study by Lorenzo et al. (2009) the moments in which content teachers use the target language most frequently are identified: during activities, consolidation and revision. On the contrary, they tend to employ the mother tongue when they have to face problems. That is, depending mainly on the CLIL teacher language proficiency, the foreign language will be used widely in some cases while minimally in others (Martínez Agudo, 2020). Novotná et al. (2001) suggest that teachers

should have a good command of the foreign language and could use the mother tongue when is specially needed and allow students code-switching to communicate, especially in the first stages of CLIL.

According to the European Commission (2017) teachers need additional qualifications to teach on these programmes; they need to be qualified in at least one non-linguistic subject and have language proficiency level of the foreign language of instruction. It is usually B2 as the minimum proficiency level required to teach in almost all Spain; depending on the Autonomous Communities (in Madrid and Navarra a C1 level is required), in terms of the Council of Europe's Common European Framework of Reference for Languages. The Junta de Andalucía (2019) establishes in the Language Development Plan in Andalusia (2016-2020) the C1 as the reference level for bilingual teachers. It should be noted that since the Bilingual Program started, the evolution of the requirement of proficiency level is favorable as it was a B1 level at the beginning, then a B2 was required. Now to the C1 competence level. After years of considering foreign language the most urgent in terms of training, it looks like linguistic training is achieved in some way and turns into less important (Pérez Cañado, 2018c).

Education authorities require that teachers have a certain competence in the foreign language in order to be authorized to become CLIL teachers. However, as Eurydice (2006) discusses, linguistic knowledge and language skills are not the only skills that are necessary to teach in a CLIL context. Teacher training should also cover knowledge and competences concerning CLIL underpinnings, practice and methodology. The study by Pérez Cañado (2018a) underscores that content teachers have an insufficient knowledge regarding the CLIL program. In fact, Hillyard (2011) mentioned that the training that foreign language teachers received is outdated; that is, they should be retrained to implement a CLIL approach. For instance, in Prague, there is an optional course about theoretical and practical aspects of CLIL destined to pre-service teachers so that they can get the initial qualifications for CLIL (Novotná et al., 2001). In some autonomous communities of Spain, teachers have to participate in CLIL methodology training courses (European Commission, 2017).

Dalton-Puffer et al. (2009) claimed that the CLIL classes only differentiate with the non-CLIL classes in the foreign language. However, CLIL is not based in doing exactly the same but in a different language since teachers should adopt a

communicative methodology adapted to non-linguistic subjects (Junta de Andalucía, 2019). Teachers must not only be competent in the foreign language, but they must also master the subject content. For instance, the study by Pistorio (2009) hold that, in Argentina, the colleges and universities have to certificate that CLIL teachers achieve not only the foreign language, but also the content subject. Certainly, although teachers are trained in both foreign language and content, sometimes there is no integration (Marsh et al., 2012). Besides Pérez Cañado (2016) underscores that teaching training is necessary in all areas, but fundamentally in theoretical aspects and ongoing professional development. Apart from linguistic skills, methodological skills are necessary to implement CLIL (Lorenzo, 2010). As Díaz et al. (2005, p. 168) contened, “La formación en educación bilingüe no consiste sólo en mejorar la competencia lingüística del profesor en formación, sino que hay que realizar una labor de “entrenamiento” en los cambios metodológicos que ésta implica”. According to Pavón and Ellison (2013), ideal teachers should have three distinct kinds of abilities: knowledge of the discipline, a competent use of the foreign language, and the utilization of appropriate methodological strategies. The study by Pena Díaz and Porto Requejo (2008) shows a serious training deficiency is the teaching methodology as 40% of the teachers affirmed that they had no knowledge about bilingual education. So, pedagogic training is another important aspect teachers should receive training in. Hüttner and Smit (2014, p. 163) stated that “there is no unified CLIL pedagogy”; that is, an exact model does not exist and teachers could adopt CLIL according to the group of students and the context. The fact is that the attention paid to pedagogy in teachers is limited as indicated by the national CLIL evaluations (Maljers & Wooning, 2003). As Pérez Cañado (2017) underscores in her study, teachers need to adapt to the new and active methodologies to students who are the protagonist of the learning in order to facilitate the extra cognitive challenge they face when learning a foreign language. In her study of 2016 (Pérez Cañado, 2016) she even mentions that teachers have to change their role, “from being donors of knowledge to become facilitators and mediators of learning” (p. 203). Although there is no concrete methodology to implement CLIL and different possibilities arise, a series of didactic strategies are considered to facilitate CLIL. For example, the use of the foreign language for communicative purposes, uses learning by doing methodology, collaborating with other teachers, paying attention to scaffolding, etc. (Barrios, s.d.).

Another important demand imposed to teachers in which training is needed is the elaboration of materials. Because of the scarcity of materials the need of creating new and originally designed ones arises (Junta de Andalucía, 2019). Although, Bruton (2011a) affirmed that, due to the fact that coordinators are granted time for materials preparation, however, the fact is that the preparation of materials mean a considerable effort and workload for teachers since most times they have to prepare the material outside of their teaching hours (Díaz et al., 2005). Furthermore, sometimes teachers are not prepared to use certain tools for material design (Pérez Cañado, 2016). In the study carried out by Rubio Mostacero (2009) in Jaén in 2005, teachers asked for courses and guidelines regarding additional materials and TIC resources. According to the study by Pérez Cañado (2016), practicing teachers are familiarized with authentic materials, but need more support on ICT aspects as ICT resources should be adapted to real content in the classroom. It should be mentioned that language assistants support teachers in the development of materials (Lorenzo, 2010).

Thanks to the Bilingual Program, the collaboration between content and foreign language teachers increases, and coordination with the language assistants is also a fact. Also, the relationship with the first language teachers requires more attention (Junta de Andalucía, 2019). In our context, cooperation among teachers has not always been common. Lately, and as a consequence of participating in the bilingual program, teachers are collaborating significantly more closely (Lorenzo et al., 2009). The promotion of collaboration among teachers is a strength of CLIL since teachers learn and benefit from the help of their counterparts; both subject and content teachers have a lot to offer to each other (Deller, 2005) and trainers, practitioners and researchers could collaborate with other stakeholders and learn a lot from each other (Lorenzo, 2010; De Graaff et al., 2007). Undoubtedly, this task improves CLIL implementation, but it also increases teacher workload. In Spain, CLIL teachers have extra time to prepare and coordinate lessons (Eurydice, 2006). However, this time, which is 1 hour a week to meet and coordinate, sometimes is not enough and they have also to plan after their regular work hours (Pérez Cañado, 2018c).

All CLIL training does not depend uniquely from teachers; schools should also support teacher education. As Dale and Tanner (2012) mentioned, if schools pay the time teachers devote to training, recognize international language examinations, provide CLIL workshops or courses, etc. teachers will be more motivated and will develop

faster the CLIL learning. In the words of Ruiz de Zarobe and Catalán (2009, p. 45) “CLIL is only sustainable if the teachers delivering the new curriculum are trained and supported both internally and externally”. The study by Pérez Cañado (2018c) shows that the cooperation in the elaboration of an integrated curriculum has increased in the recent studies. Besides teacher qualification, Dalton-Puffer et al. (2009) mentioned the need of developing a CLIL national framework. The European Commission (2020) carried out a case study in the Basque educational system which could be perfectly applicable to our autonomous community. It highlights the need to change language plans in schools and in universities in order to upgrade teachers’ language skills in the educational system.

The need for CLIL training is evident across Europe – although the study by Pérez Cañado (2016) considers European teachers as the best equipped for CLIL- ; it is the main reason why different tools have been originated in order to support this shortcoming. One of the most important tools that serves as a point of reference for designing CLIL teacher training courses was the publication of the European Framework for CLIL Teacher Education which focuses on the competences necessary to teach content and language in an integrated way (Marsh et al., 2012). Other important tool is, for example, the one developed by the British Council (2014) which has created guidelines for the implementation of CLIL that also includes some recommendations for its correct implementation. There are also blogs that include useful CLIL teaching practices (European Commission, 2020). Mobility programmes are also supported by the European Union to teachers and students, the most renowned are Socrates, Leonardo da Vinci, Minerva, Comenius, and Grundtvig. The goal of these programmes is to facilitate teachers’ immersion, increase teaching training and students’ exchanges, and promote school-twinning initiatives, among others (Lorenzo, 2010). Their positive impact in linguistic aspects and professional development is evinced in the study by Pérez Cañado (2016). However, as European Commission (2017) indicates, these courses are recommendations and it should be mentioned that teachers do not usually participate in courses abroad or exchanges programs until they do not have a C1 level (Pérez Cañado, 2017).

In Spain, courses of language and methodology and periods of study abroad are also offered; these focus also on linguistic and methodological skills and are funded by the central and regional governments, depending on the Autonomous Community (Lorenzo,

2010). Other initiatives are master's degrees with CLIL content. For example, in Barcelona, the Bellaterra Teacher Education (TED) Master's Degree for secondary teachers provides the student teachers with some information on CLIL (Escobar Urmeneta, 2013); and the Máster Interuniversitario en Enseñanza Bilingüe y AICLE at the Universities of Jaén and Córdoba is specifically focused on teachers' real needs in CLIL (Pérez Cañado, 2018c). Both fulfill the requirements of the Ministry and strengthen lifelong training. However, it should be recognized that most teachers do not participate in exchange programs or courses abroad and they do not study CLIL master's degrees. In fact, teachers with 30 years or more of teaching experience are the ones who most participate in the different CLIL trainings (Pérez Cañado, 2018c).

In Andalusia, the APPP and ASPDL help in teacher training, while APPP established teaching programs for teachers, the APSDL keep advancing in the training objectives teachers may achieve in order to obtain a C1 level in the CEFR (European Council, 2011 as cited in Barrios & Lara, 2018). Moreover, the Strategic Plan support the Bilingual Program by offering in-person and virtual training for teachers in Teachers Centers with the Training Plan that focus on linguistic and methodological training, and in EEOOII with the CAL modality that is exclusive to teachers and pays attention to linguistic training (Junta de Andalucía, 2016). Although different measures and plans are being carried out continuously to support the need of training for CLIL and progress in this respect has been documented, the need of education for CLIL teachers is still a fact that affects its implementation. Therefore, teachers should have an opportunity to receive CLIL training at universities (pre-service teachers) and in institutions of the Ministry of Education (in-service teachers) (Benkő, 2015). Pérez Cañado (2018c) proposes different solutions to face the CLIL training challenge in relation with teachers' demands; among the most important ones are: adaptation of the courses and degrees to incorporate bilingualism and CLIL content, and continuation of teacher training needs research, both focused on pre-service and in-service teachers. All in all, teacher education should be a priority in CLIL agenda so that it does not get forgotten.

Summarizing, in the past decade, the importance of teacher training for CLIL has been highlighted (Pérez Cañado, 2017). CLIL teachers have a number of responsibilities and the challenges they face are high. To become effective CLIL teachers, a series of competences such as the ones mentioned by Benkő (2015) should be developed: foreign language proficiency and subject knowledge, together with

pedagogical, psychological, intercultural, social, cognitive and communicative skills. Thereby, as CLIL is in continuous progress, teachers must keep up with the new updates in order to continue their ongoing professional development (Hillyard, 2011).

4.2 Teacher Education: Stakeholders' perspectives

Teacher education research usually focuses on proposals for teacher training, forgetting about the real needs of teachers involved in CLIL (Díaz et al., 2005). Thus, it is also important to consider the perspectives of the key players in CLIL programs, i.e., the teachers. Not all the teachers and educators see CLIL in the same way; there are different points of view. However, their perspectives are quite important as they implement CLIL and reflect on their own practice, thus they could make fundamental contributions to improve its application in schools (Lorenzo, 2010).

Teachers have evinced their continuous efforts in CLIL (Junta de Andalucía, 2016) in spite of the difficulties that CLIL entails. They consider CLIL challenging, but at the same time satisfying. Teachers in different studies (Hillyard, 2011; Pérez Cañado, 2016) show that despite some obstacles, they value CLIL as positive and effective. In the research of Pokrivčáková (2015), CLIL teachers specified the areas in which they consider more help is needed. They are the following; increased demand on teachers' proficiency level in a foreign language, balance among two languages, excessive work, scarcity of materials, and students with different needs. In this same study in Slovak schools, teachers usually complained about the scarcity of CLIL training textbooks and manuals as the lack of these teaching sources was perceived to make their work more difficult. However, no negative attitudes are found regarding the program; all opinions from neutral to very positive opinions. In the investigation carried out on teachers, parents, and learners by Pérez Cañado (2018a), the opinion of stakeholders is collected where they express they believe that there is an increase of active methodologies, designed materials, and coordination, among others. In the study by Dalton-Puffer et al. (2009) that teachers with experience in CLIL report that they are conscious of the drawbacks and inconveniences it involves; however they assess CLIL in a more positive way than teachers with no experience do. Similarly, the study by Díaz et al. (2005) shows teachers' positive opinions with respect to CLIL program; they are motivated with their participation in the Bilingual Project and agree that CLIL improves the

teaching process. In this study (Díaz et al., 2005) teachers received training by British Council and Trinity College. Training has not made teachers change their mind regarding CLIL program as they were aware of the difficulties it entailed, some of them even improve their vision during its development. In the study by Lancaster (2016), teachers even have a positive outlook towards teacher training. In fact, teacher training has also increased the motivation teachers have towards the project according to Pérez Cañado's study (2016). The Junta de Andalucía (2019) also shows that most teachers are satisfied with the program.

In spite of the positive outlook teachers have towards CLIL, they consider language training and methodological preparation necessary. In fact, Spain is one of the countries in Europe where practitioners are most aware of their insufficiencies in CLIL and demand more training in foreign language, ongoing professional development, and materials and resources (Pérez Cañado, 2016). With regards to mobility programs, the research by Pérez Cañado (2017) showed that teachers ask for more training abroad and exchanges. In the study by Díaz et al. (2005), teachers requested training in bilingual education and English courses for the entire teaching staff. The Bilingualism Report (Junta de Andalucía, 2019) gathers information regarding teachers' perceptions about the improvement of bilingual education; they consider that three main areas are required: the increase in material and human resources, the adaptation of the educative organization to the program, and the adaptation of the teaching-learning process to the bilingual project. So, not only teacher training is needed, but also improvements in the Educative Administration. On the other side, teachers believe that the education administration is responsible for the insufficient training they receive, since it provides scarce support (Barrios, 2019). The educational authorities provide some training in methodological competences; however, teachers feel they still need more training regarding its practice since each subject teacher interprets and implements the programmed methodology differently (Barrios, 2019). In one of her study, Pérez Cañado (2016) concludes that practitioners believe that the success of the CLIL program depends ultimately on their own enthusiasm towards it more than on the support and guidance they receive by the authorities.

To sum it all up, the perspectives of teachers regarding CLIL have positively changed along the years, especially in the last decade. In the present they have a more optimistic perception about their own linguistic and pedagogical level, which provides

them with the confidence to teach students better (Pérez Cañado, 2017). The fact that most of them would like to continue to use CLIL in future is the effect of the positive perception they have about CLIL (Pokrivčáková, 2015). In any case, it seems necessary to develop research regarding the situation of CLIL teachers by focusing on their own needs and finding solutions that appear on their daily practice, as Ruiz de Zarobe and Catalán (2009) hold.

5. CONCLUSION

Once the basic aspects of CLIL methodology have been reviewed, the extent of content learning has been investigated, and the need for teacher training have been made clear, the conclusions regarding these aspects are presented in this section.

The thesis has made clear the main aim of CLIL, which is the integration of subject and foreign language; that is, the CLIL approach allows the teaching of a content subject, such as Social Science through the foreign language which could be English. One of the key facts of CLIL is the one mentioned by Pérez Cañado (2020, p. 12) “CLIL is truly being integrated into mainstream education”. Indeed, both CLIL and non-CLIL sections coexist in public schools. We should take advantage of having CLIL in public schools, as it was discussed above. Bilingual education was traditionally associated to elite private schools (Barrios, 2018) although it seems to work successfully in both, public and private contexts.

To the best of my knowledge, there are some areas not considered which should be taken into account for future investigations, as research usually focuses on comparing CLIL and non-CLIL students by observing the final results, without paying attention to the students’ initial level and prior achievement.

As regards content, it seems that foreign language support could benefit content learning. In addition, content achievement could be influenced by several factors; thereby these should be considered in order to assure CLIL success implementation. In Pérez Cañado (2018b) own words “CLIL is truly effective, and which variables need to be addressed in the very near future to keep CLIL implementation on track” (p. 27). Furthermore, CLIL positive results are more evident in the long term as learning gains

are higher after several years of implementation. Additionally, it would be of interest to provide support to parents regarding how to help the CLIL learning process of their children; some suggestions could be through guidelines or training at the beginning of the school year.

Furthermore, it should be highlighted the great perseverance of teachers in spite of the difficulties they are faced with. However, as training needs have been detected, they should be encouraged to continue with lifelong training. As Pokrivčáková (2015) argued, teacher training should be based on the research results. Training should not only consider linguistic skills, but also pay attention to CLIL theoretic and didactic education. Teachers' roles and competences should be adapted to CLIL and sometimes professionals are not prepared for such a high challenge (Pérez Cañado, 2017). It is also key that teachers keep up-to-date with CLIL research in order to be familiarized and with the latest CLIL publications which will improve the effectiveness and success of their own implementation of the CLIL program.

The great number of applications for this master's degree which is specifically focused on CLIL is a clear example of the need for teacher training teachers for CLIL. The Master's course provides an interesting overview of the most important aspects of CLIL theoretical and methodological tenets, and of practical implementation. From my perspective, a possible suggestion for improvement of this Master's course is the inclusion of a practical placement period in order to apply the theoretical, methodological and practical concepts covered. Overall, the Andalusian universities are supporting the school bilingual education, offering courses like this one which can contribute to mitigate the deficiencies that CLIL teachers have.

I could not finish without mentioning (in words of Pérez Cañado, 2016, p. 217) "the research-based-pedagogy" of this Master's degree, which is the key for its success since it pays attention to the real needs that teachers face when it is implemented. Particularly this pedagogical approach was the reason that brought myself to elaborate this thesis in order to continue investigating and learning about the most controversial aspects of CLIL.

Finally, it is necessary to highlight that some aspects of CLIL require further investigation and research so that more conclusive evidence is obtained in order to improve CLIL content learning and teacher education.

6. REFERENCES

Admiral, W., Westhoff, G., & de Bot, K. (2006). Evaluation of bilingual secondary education in the Netherlands: students' language proficiency. *English Educational Research and Evaluation*, 12(1), 75-93. <https://doi.org/10.1080/13803610500392160>

Anderson, L. W., & Krathwohl. (Eds.). (2001). *A Taxonomy for Learning, Teaching and Assessing. A Revision of Bloom's Taxonomy of Educational Objectives*. Longman.

Anghel, B., Cabrales, A., & Carro, J. M. (2016). Evaluating a bilingual education program in Spain: The impact beyond foreign language learning. *Economic Inquiry*, 54(2), 1202-1223. <https://doi.org/10.1111/ecin.12305>.

Barrios, E (s.f.). *Aprendizaje Integrado de Contenido y Lengua Extranjera (AICLE). Tema 5*. [Unpublished manuscript]. Facultad de Ciencias de la Educación, University of Málaga.

Barrios, E. (2019). The effect of parental education level on perceptions about CLIL: a study in Andalusia. *International Journal of Bilingual Education and Bilingualism*, 1-13. <https://doi.org/10.1080/13670050.2019.1646702>.

Barrios, E., & Milla Lara, M. D. (2018). CLIL methodology, materials and resources, and assessment in a monolingual context: an analysis of stakeholders' perceptions in Andalusia. *The Language Learning Journal*, 48(1), 60-80. <https://doi.org/10.1080/09571736.2018.1544269>

Benkő, É. T. (2015). Teacher Training for CLIL in Hungary: An empirical research. In D. Hanesová (Eds.), *Learning Together to be a Better CLIL Teacher* (1st ed., pp. 1-114). Pedagogická fakulta, Univerzita Mateja Bela v Banskej Bystrici.

Bloom, B. S. & Krathwohl, D. R. (1956). *Taxonomy of Educational Objectives. The Classification of Educational Goals, by a committee of college and university examiners*. Longman,1.

British Council (2014). *CLIL Policy and Practice: Competence-based education for employability, mobility and growth*. Recommendations from the policy workshop in Como 10-12 March 2014. https://www.britishcouncil.org/sites/default/files/clil_recommendations_august_14.pdf.

Broca, Á. (2016). CLIL and non-CLIL: Differences from the outset. *Elt Journal*, 70(3), 320-331. <https://doi.org/10.1093/elt/ccw011>

Bruton, A. (2011a). Are the differences between CLIL and non-CLIL groups in Andalusia due to CLIL? A reply to Lorenzo, Casal and Moore (2010). *Applied Linguistics*, 32(2), 236-241. <https://doi.org/10.1093/applin/amr007>

Bruton, A. (2011b). Is CLIL so beneficial, or just selective? Re-evaluating some of the research. *System*, 39(4), 523-532. <https://doi.org/10.1016/j.system.2011.08.002>

Bruton, A. (2013). CLIL: Some of the reasons why... and why not. *System*, 41(3), 587-597. <https://doi.org/10.1016/j.system.2013.07.001>

Casal, S., & Moore, P. (2009). The Andalusian bilingual sections scheme: Evaluation and consultancy. *International CLIL Research Journal*, 1(2), 36-46. <http://www.icrj.eu/12-743>

Cenoz, J. (2013). Discussion: Towards an educational perspective in CLIL language policy and pedagogical practice. *International Journal of Bilingual Education and Bilingualism*, 16(3), 389-394. <https://doi.org/10.1080/13670050.2013.777392>

Clegg, J. (2001). Towards successful english-medium education in Southern Africa. In D. Marsh (Eds.), *Enhancing English-medium education in Namibia* (pp. 11-13). University of Jyväskylä.

Commission of the European Communities (2003). 'Promoting Language Learning and Linguistic Diversity: An Action Plan 2004–2006', in 'Communication

from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions' (Brussels: European Commission).

Coonan, C. M. (2007). Insider views of the CLIL class through teacher self-observation introspection. *International Journal of Bilingual Education and Bilingualism*, 10(5), 625-646.

Coyle, D. (2007). Content and Language Integrated Learning: Towards a connected research agenda for CLIL pedagogies. *International Journal of Bilingual Education and Bilingualism*, 10(5), 543-562. <https://doi.org/10.2167/beb459.0>

Coyle, D. (2010). Foreword in CLIL in Spain: Implementation, Results and Teacher Training. In D. Lasagabaster & Y. Ruiz de Zarobe (Eds.), *CLIL in Spain: Implementation, results and teacher training* (pp. vii–viii). Cambridge Scholars Publishing.

Coyle, D., P. Hood, & D. Marsh (2010). *CLIL Content and Language Integrated Learning*. Cambridge University Press.

Cummins, J. (1999). *BICS and CALP: Clarifying the distinction*. ERIC Clearinghouse on Languages and Linguistics. Retrieved from <http://www.iteachilearn.com/cummins/bicscalp.html>

Dale, L., & Tanner, R., (2012). *CLIL activities. A resource for subject and language teachers*. Cambridge University Press.

Dallinger, S., Jonkmann, K., Hollm, J., & Fiege, C. (2016). The effect of content and language integrated learning on students' English and history competences, killing two birds with one stone?. *Learning and Instruction*, 41, 23-31.

Dalton-Puffer, C., Hüttner, J., Schindelegger, V., & Smit, U. (2009). Technology-geeks speak out: What students think about vocational CLIL. *International CLIL Research Journal*, 1(2), 17-25. <http://www.icrj.eu/12/article2.html>

Dalton-Puffer, C., Llinares, A., Lorenzo, F., & Nikula, T. (2014). You can stand under my umbrella: Immersion, CLIL and bilingual education. A response to Cenoz,

Genesee & Gorter (2013). *Applied Linguistics*, 35(2), 213-218.
<https://doi.org/10.1093/applin/amu010>.

De Graaff, R., Koopman, G. J., & Westhoff, G. (2007). Identifying effective L2 pedagogy in content and language integrated learning (CLIL). *Vienna English Working Papers*, 10(5), 603-624.

Deller, S. (2005). Teaching other subjects in English (CLIL). *In English!*, 29-31.

Del Puerto F. G., & Gómez, E. (2009). Testing the effectiveness of content and language integrated learning in foreign language contexts: The assessment of English pronunciation. In Y. Ruiz de Zarobe & R. M. J. Catalán (Eds.), *Content and language integrated learning: Evidence from research in Europe*, (pp. 215-234). Multilingual Matters.

Díaz, C. P., Fernández, R. F., Gómez, A. G., & Halbach, A. (2005). La implantación de proyectos educativos bilingües en la Comunidad de Madrid: las expectativas del profesorado antes de iniciar el proyecto. *Porta Linguarum*, 3, 161-173.

Escobar Urmeneta, C. (2013). Learning to become a CLIL teacher: teaching, reflection and professional development. *International Journal of Bilingual Education and Bilingualism*, 16(3), 334-353. <https://doi.org/10.1080/13670050.2013.777389>

European Commission (1995). *White Paper on Education and Training. Teaching and Learning. Towards the Learning Society*. European Commission.
<http://aei.pitt.edu/1132/>

European Commission (2005). *Europeans and Languages*. Special Eurobarometer 63. European Commission.

European Commission (2012). *Europeans and their languages*. Special Eurobarometer 386. European Commission.
http://ec.europa.eu/public_opinion/archives/ebs/ebs_386_en.pdf

European Commission (2020). *The future of language education in Europe: case studies of innovative practices*. Analytical report. Publications Office of the European Union.

European Commission/EACEA/Eurydice (2017). *Key Data on Teaching Languages at School in Europe. Eurydice Report*. Publications Office of the European Union.

European Council. (2001). *Common European Framework of Reference for Languages: learning, Teaching, Assessment*. Cambridge University Press. <http://rm.coe.int/1680459f97>

Eurydice (2006). *The Information Network on Education in Europe*. Content and language integrated learning (CLIL) at school in Europe. <http://www.eurydice.org>

Fernández-Sanjurjo, J., Fernández-Costales, A., & Arias Blanco, J. M. (2017). Analysing students' content-learning in science in CLIL vs. non-CLIL programmes: Empirical evidence from Spain. *International Journal of Bilingual Education and Bilingualism*, 1-14. <https://doi.org/10.1080/13670050.2017.1294142>

Fernández-Sanjurjo, J., Fernández-Costales, A., & Arias Blanco, J. M. (2018). Assessing the influence of socio-economic status on students' performance in Content and Language Integrated Learning. *System*, 73, 16-26. <https://doi.org/10.1016/j.system.2017.09.001>.

Hajer, M. (2000). Creating a language-promoting classroom: Content-area teachers at work. In J. K. Hall & L. Stoops Verplaetse (Eds.), *Second and foreign language learning through classroom interaction*, (pp. 265-285). Erlbaum.

Hillyard, S. (2011). First Steps in CLIL: Training the Teachers Los primeros pasos para el AICLE: Formación de los docentes. *Latin American Journal of Content & Language Integrated Learning*, 4(2), 1-12. <https://doi.org/10.5294/lacil.2011.4.2.1>

Hüttner, J., & Smit, U. (2014). CLIL (Content and Language Integrated Learning): The bigger picture. A response to: A. Bruton. (2013). CLIL: Some of the reasons why... and why not. *System*, 44, 160-167. <https://doi.org/10.1016/j.system.2014.03.001>

Instrucciones de 15 de Mayo de 2019, de la Dirección General de Ordenación y Evaluación Educativa, sobre la Organización y Funcionamiento de la Enseñanza Bilingüe para el curso 2019/2020. Consejería de Educación. Junta de Andalucía.

Järvinen, H.M. (2006). *Language in content instruction. Issues in promoting language and learning in CLIL type provision*. University of Turku. http://www.lici.utu.fi/materials/article_jarvinen.pdf

Junta de Andalucía (2016). *Plan estratégico de desarrollo de las lenguas en Andalucía. Horizonte 2020*. Consejería de Educación. Junta de Andalucía. http://www.juntadeandalucia.es/export/drupaljda/plan_estrategico.pdf.

Junta de Andalucía (2019). *Educación Bilingüe en Andalucía. Informe de gestión, Competencias y Organización*. Consejería de Educación. Junta de Andalucía. <http://www.juntadeandalucia.es/educacion/agaeve/docs/publicaciones/InformeBilinguismo.pdf>.

Lancaster, N. K. (2016). Stakeholder Perspectives on CLIL in a Monolingual Context. *English Language Teaching*, 9(2), 148-177. <https://doi.org/10.5539/elt.v9n2p148>

Lim Falk, M. (2008). *Svenska i engelskspråkig skolmiljö: Ämnesrelaterat språkbruk i två gymnasieklasser. Swedish in an English classroom environment. Language use in two grammar school classes*. [Unpublished doctoral dissertation]. Stockholm University.

Lorenzo, F. (2007). The sociolinguistics of CLIL: Language planning and language change in 21st century Europe. *Revista Española de Lingüística Aplicada*, 20(1), 27-38. https://www.unifg.it/sites/default/files/allegatiparagrafo/20-01-2014/lorenzo_et_al._models_and_practice_in_clil.pdf#page=27

Lorenzo, F. (2010). CLIL in Andalusia. In D. Lasagabaster & Y. Ruiz de Zarobe (Eds.), *CLIL in Spain: Implementation, results and teacher training* (pp. 2-11). Cambridge Scholars Publishing.

Lorenzo, F., Casal, S., & Moore, P. (2010). The Effects of Content and Language Integrated Learning in European Education: Key Findings from the Andalusian Bilingual Sections Evaluation Project. *Applied Linguistics*, 31(3), 418-442. <https://doi.org/10.1093/applin/amp041>.

Madrid, D. (2011). Monolingual and bilingual students' competence in Social Sciences. In D. Madrid, & S. Hughes (Eds.), *Studies in bilingual education* (pp.195-222). Peter Lang.

Madrid, D., & Barrios, E. (2018). A comparison of students' educational achievement across programmes and school types with and without CLIL provision. *Porta Linguarum*, 29, 29-50.
https://www.ugr.es/~portalin/articulos/PL_numero29/2_DANIEL%20MADRID.pdf

Maljers, A., & Wooning, C. (2003). *Survey on Content and Language Integrated Learning*. Europees Platform voor het Nederlandse Onderwijs.

Marsh, D., & Langé, G. (Ed.). (2000). *Using languages to learn and learning to use languages*. University of Jyväskylä.

Marsh, D., Mehisto, P., Wolff, D., & Frigols Martín, M. J. (2012). *European framework for CLIL teacher education*. The European Centre for Modern Languages.
https://www.unifg.it/sites/default/files/allegatiparagrafo/20-01-2014/european_framework_for_clil_teacher_education.pdf

Martínez Agudo, J. D. (2020). To what extent does parental educational background affect CLIL learners' content subject learning? Evidence from research in Spain. *International Journal of Bilingual Education and Bilingualism*, 1-14.
<https://doi.org/10.1080/13670050.2020.1715916>

Mehisto, P., & Asser, H. (2007). Stakeholder perspectives: CLIL programme management in Estonia. *International Journal of Bilingual Education and Bilingualism*, 10(5), 683-701. <https://doi.org/10.2167/beb466.0>.

Mehisto, P., Marsh, D., & Frigols, M. J. (2008). *Uncovering CLIL content and language integrated learning in bilingual and multilingual education*. Macmillan.

Meyer, O. (2010). Towards quality-CLIL: successful planning and teaching strategies. *Pulso*, 33, 11-29.

Muñoz, C. (2002). Relevance and potential of CLIL. CLIL/EMILE. In D. Marsh (Eds.), *The European dimension. Actions, trends and foresight potential* (pp. 35-36). European Commission.

Navés, T., & Victori, M. (2010). CLIL in Catalonia: An overview of research studies. In D. Lasagabaster & Y. Ruiz de Zarobe (Eds.), *CLIL in Spain: Implementation, results and teacher training* (pp. 30-54). Cambridge Scholars Publishing.

Novotná, J., Hadj-Moussová, Z., & Hofmannová, M. (2001). Teacher training for CLIL – Competences of a CLIL Teacher. *Proceedings SEMT, 1*, 122-126.

OECD (2016). PISA 2015. Results in focus. Paris: OECD. <https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf>.

Paran, A. (2013). Content and language integrated learning: panacea or policy borrowing myth? *Applied Linguistics Review*, 4(2), 317–342. <https://doi.org/10.1515/applirev-2013-0014>

Pavón Vazquez, V. (2018). Learning outcomes in CLIL programmes: a comparison of results between urban and rural environments. *Porta Linguarum*, 29, 9-28.

Pavón, V., & Ellison, M. (2013). Examining teachers roles and competences in Content and Language Integrated Learning (CLIL). *Linguarum Arena*, 4, 65-78.

Pena Díaz, C., & Porto Requejo, M. D. (2008). Teacher beliefs in a CLIL education project. *Porta Linguarum*, 10, 151-161.

Pérez Cañado, M. L. (2012). CLIL research in Europe: Past, present, and future. *International Journal of Bilingual Education and Bilingualism*, 15(3), 315–341. <https://doi.org/10.1080/13670050.2011.630064>

Pérez Cañado, M. L. (2014). Teacher training needs for bilingual education: in-service teacher perceptions. *International Journal of Bilingual Education and Bilingualism*, 19(3), 266-295. <https://doi.org/10.1080/13670050.2014.980778>

Pérez Cañado, M. L. (2016). Are teachers ready for CLIL? Evidence from a European study. *European Journal of Teacher Education*, 39(2), 202-221. <https://doi.org/10.1080/02619768.2016.1138104>

Pérez Cañado, M. L. (2017). CLIL teacher education: Where do we stand and where do we need to go? In M. E. Gómez Parra & R. Johnstone (Eds.), *Bilingual education: Educational trends and key concepts* (pp. 129–144). Ministerio de Educación.

Pérez Cañado, M. L. (2018a). CLIL and pedagogical innovation: Fact or fiction?. *International Journal of Applied Linguistics*, 28(3), 369-390. <https://doi.org/10.1111/ijal.12208>

Pérez Cañado, M. L. (2018b). The effects of CLIL on L1 and content learning: Updated empirical evidence from monolingual contexts. *Learning and Instruction*, 57, 18-33. <https://doi.org/10.1016/j.learninstruc.2017.12.002>

Pérez Cañado, M. L. (2018c). Innovations and challenges in CLIL teacher training. *Theory Into Practice*, 57(3), 1-10. <https://doi.org/10.1080/00405841.2018.1492238>

Pérez Cañado, M. L. (2020). CLIL and elitism: myth or reality?. *The Language Learning Journal*, 48(1), 4-17. <https://doi.org/10.1080/09571736.2019.1645872>

Pérez-Vidal, C. (2013). Perspectives and lessons from the challenge of CLIL experiences. In C. Abello-Contesse, P.M. Chandler, M.D. López-Jiménez & R. Chacón-Beltrán (Eds.), *Bilingual and Multilingual Education in the 21st Century. Building on Experience*, (pp. 59–82). Multilingual Matters.

Piesche, N., Jonkmann, K., Fiege, C., & Keßler, J. U. (2016). CLIL for all? A randomised controlled field experiment with sixth-grade students on the effects of content and language integrated science learning. *Learning and Instruction*, 44, 108-116.

Pistorio, M. I. (2009). Teacher training and competences for effective CLIL teaching in Argentina. *Latin American Journal of Content & Language Integrated Learning*, 2(2), 37-43. <http://journals.sfu.ca/laclil/index.php/LACLIL/article/view/18/12>

Pokrivčáková, S. (2015). Research implications for training CLIL teachers in Slovakia. In D. Hanesová (Eds.), *Learning Together to be a Better CLIL Teacher* (1st ed., pp. 23-38). Pedagogická fakulta, Univerzita Mateja Bela v Banskej Bystrici.

Rascón Moreno, D., & Bretones Callejas, C. M. (2018). Socioeconomic status and its impact on language and content attainment in CLIL contexts. *Porta Linguarum*, 29, 115–135.

Roussel, S., Joulia, D., Tricot, A., & Sweller, J. (2017). Learning subject content through a foreign language should not ignore human cognitive architecture: A cognitive load theory approach. *Learning and Instruction*, 52, 69-79. <http://dx.doi.org/10.1016/j.learninstruc.2017.04.007>

Rubio Mostacero, M. D. (2009). *Language teacher training for non-language teachers: Meeting the needs of Andalusian teachers for school plurilingualism projects*. [Design of a Targeted Training Course]. Universidad de Jaén.

Ruiz de Zarobe, Y., & Catalán, R. M. J. (2009). Content and language integrated learning. Evidence from research in Europe. *Multilingual Matters*, 41, 81-92.

Ruiz de Zarobe, Y., & Celaya, M. L. (2011). AICLE a través de las lenguas: resultados de la investigación en dos comunidades bilingües, *Revista Teoría de la Educación*, 12(3), 200-214. http://campus.usal.es/~revistas_trabajo/index.php/revistatesi/article/view/8572/8657

Ruiz de Zarobe, Y., & Lasagabaster, D. (2010). CLIL in a bilingual community: the Basque autonomous community. In D. Lasagabaster & Y. Ruiz de Zarobe (Eds.), *CLIL in Spain: Implementation, results and teacher training* (pp. 12-29). Cambridge Scholars Publishing.

San Isidro, X. (2010). An insight into Galician CLIL: Provision and results. In D. Lasagabaster & Y. Ruiz de Zarobe (Eds.), *CLIL in Spain: Implementation, results and teacher training* (pp. 55-78). Cambridge Scholars Publishing.

Santo-Tomás González, M. (2011). *From low to high order thinking skills in CLIL Science Primary textbooks: a challenge for teachers and publishers*. [Final master dissertation, Universidad Complutense de Madrid].

Stehler, U. (2006). The acquisition of knowledge in bilingual learning: An empirical study on the role of language in content learning. *Vienna English working papers*, 15(3), 41-46. http://www.univie.ac.at/Anglistik/views15_3_clil_special.pdf