The Effects of CLIL from the Perspective of In-service Teachers in Salamanca (Castilla y León, Spain)

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Abstract

This paper reports on the results of quantitative research carried out on a group of seventy-two teachers using CLIL methodology (Content and Language Integrated Learning) in primary schools in Salamanca, in the region of Castilla y León. A questionnaire was used to collect data regarding the characteristics of the in-service CLIL teachers currently working under this new paradigm, thus, providing an overview in this field of study. This research is based on the assumptions that teaching through a foreign language is not an easy task and that teachers lack sufficient and adequate methodology and teaching training to meet the challenge of successful and quality CLIL. As these bilingual programs are being implemented at a rapid and continuous way, there is a need for CLIL teacher training so that they can carry out their work efficiently and with the confidence to offer successful teaching.

Key words: CLIL methodology, foreign language acquisition, teacher training, teacher needs, bilingual education.

Introduction

The processes of European integration and globalization have led to a greater consideration of the cultural, social and economic value of a good knowledge of foreign languages in recent decades (Council of Europe, 2006).

On a personal level, knowing other languages is the best tool for openness and mobility which allows people to get to know other cultures as well as experience them. It also increases the maturity, consistency and prosperity of society as a whole, giving the individuals a genuine freedom.

On the other hand, and while the human mind is open to language learning over a lifetime, the relatively recent findings in neuroscience have revealed that the ability to learn other languages in infancy is optimal (Brewster, Ellis, Girard, 2004; Lynne, 2001).

In this way, it has been established that early exposure to a foreign language develops effective strategies for grammatical treatment, accent appropriateness and lexis acquisition.

However, if the first exposure occurs between 11 and 13 years, the pattern of activation is much more diffuse, particularly, if the grammar of the second language is different from that of the mother tongue (Birdsong, 2004, Newport, 1990, Hyltenstam and Abrahamsson, 2003). With respect to phonetics, the sensitive period for the acquisition of a correct accent seems to be at 12 years of age (Major, 1998), except in variations associated with individual differences.

This increased efficiency in children learning foreign languages have resulted in greater educational policies on foreign language teaching that have taken into account the validity of these findings.

Spanish education has failed, so far, in providing quality teaching of foreign languages with a high degree of efficiency in what regards to school stages. The European Commission authorized a Special Eurobarometer on Europeans and languages; one of the objectives was to gather information regarding the foreign language ability of Europeans. Fieldwork was completed in 2005 and the results published in 2006. In Spain, 56 % of citizens admit to being monolingual; only 17 % can hold a conversation in two languages, one of the lowest among the European member states.

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However, recent initiatives within the Spanish Autonomous Communities, have been taken for the development of bilingual education programs, which, if carefully designed and implemented, a better mastery of a foreign language could be achieved in a relatively short period of time in quite a different scenario.

Following the Council of Europe initiatives for the development of language education policies based on plurilingualism, a specific European interdisciplinary approach represented by CLIL (Content and Language Integrated Learning), began to take shape over the community of educators, and served as a background to a number of experiments being carried out in different educational settings in Spain, and as is our case, in the city of Salamanca.

The CLIL concept emerged under the auspices of the European Council, but also within a large number of Commission funded projects such as the BILD and the DIESeLL projects, the CLIL Compendium, the TIE-CLIL, represent just a small sample of the work undertaken through the 1990s up until today, sharing knowledge and expertise which is already an asset to European language acquisition and language pedagogy research (Perez 1997; Marsh and Marsland 1999; Nikula and Marsh 1997).

As a result of this desire to improve foreign language skills, the implementations of CLIL programmes are becoming commonplace throughout this region in the belief that this kind of approach is the best way to improve students 'command of foreign languages without devoting too much time to their teaching.

Objectives

1. To demonstrate that most CLIL teachers only have the Diploma in English as a Foreign Language. This means possessing a proficiency level B1 according to the Common Framework of Reference for European Languages.

2. To check that most CLIL teachers received little or no training in this methodology before starting to use it.

3. To confirm that the majority of teaching materials with CLIL methodology is based on annual plans of the contents taught.

4. To corroborate that CLIL teachers design and develop the material they need for the teaching of their subjects.

5. To corroborate that the teaching of subjects in the CLIL methodology is carried out supported mainly by a textbook.

6. To check that CLIL teachers organize their classroom teaching process primarily through individual activities and sometimes in groups.

7. To demonstrate that most teachers in the CLIL methodology lack the necessary competence to teach within the CLIL framework.

CLIL definition

Most of the work on the subject agree in stating that the term CLIL (Content and Language Integrated Learning) was created in the early 90s by David Marsh and Anne Maljers, a group of

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experts in the European context, with the intention of creating a neutral and accessible term in order to facilitate communication between international professionals in the field (Mehisto, Marsh and Frigols, 2008).

Among the different definitions of CLIL, we find the one provided by Marsh (2002), which is regarded as the most complete since it highlights the purpose of this methodology: *"CLIL refers to situations where subjects, or parts of subjects, are taught through a foreign language with a dual-focused aim, namely the learning of content, and the simultaneous learning of a foreign language"* (Ibid, 2002, p.p. 15).

This definition is more complete because it highlights the true purpose of the inherent educational paradigm in the CLIL methodology. Through CLIL practice, students learn curriculum content while at the same time, they learn and develop the foreign language. This dual purpose is what makes this new approach the best option in the teaching and learning of a foreign language in a school context.

It is of interest to include a different observation about the CLIL methodology posed by Graddol (2006, p.p. 88) who says that CLIL is "*an approach in bilingual education where both curricular content (like Science or Geography) and English are taught and learnt together. The student does not have to have a high level of competence before starting to learn with this new methodology."*

The following definition extends the CLIL potential even further "The CLIL methodology is the use of language to learn. It offers the opportunity for a level special purpose communication not only in language but also in the first language. "Marsh, Marsland and Stenberg, 2001, p.p. 109).

According to the authors cited above, the language in CLIL is considered as a "vehicle", not only as an entity in itself. This is a crucial observation that is part of the great social and educational change that took place since the beginning of the development of the internet and globalization phenomenon where the English language becomes an added value within all curricula worldwide that focuses not only on the form of the language in itself but as a tool for learning more.

CLIL characteristics

In regards to the characteristics of this new educational approach, with respect to the development and acquisition of a foreign language, studies on CLIL methodology in some forms of bilingual education, have helped define those features that determine successful learning, optimizing its potential beyond linguistic achievement (Marsh and Langé, 2000; Marsh and Frigols, 2007; Maljers, Marsh, Mehisto, Wolff, Genesee and Frigols 2010).

Since CLIL shares the main elements of what is understood to be the acquisition of a second or foreign language: *exposure to information , processing of meaning, form processing and language production* (Skehan, 1998), we should mention in the first place Krashen (1985), whose Input Hypothesis was based on the idea that one of the requirements for learners to acquire languages was the exposure to understandable and abundant input; a core characteristic of the CLIL methodology since it makes use of curriculum content to develop the second or foreign language, thus, providing a lesson rich in input.

Skehan (1998), also states that learners tend to process first the information they consider relevant and which is understood, activating then, the long-term memory. This is also another feature of this new approach, which is known for offering a real purpose for language use in the context of the class. With regards to students' language production, Swain and Lapkin (1995) framed the Output

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Hypothesis, which contrasted with Krashen's Input Hypothesis. These authors claim that for a second or foreign language learning to take place, it is not sufficient to receive information which is understandable and rich in meaning, it is also important to enable students ´verbal production, so that they become aware of their mistakes and force them to seek more precise linguistic forms for expression. This characteristic of pushing output is crucial in the CLIL approach, since its emphasis is on the negotiation of meaning rather than on the form of the language, thus, encouraging students to develop the vocabulary and syntax.

If we take into account the views of Grabe and Stoller (1997), the natural acquisition of language in the CLIL methodology, allows children to develop thinking skills, such as organization, analysis and generation of ideas as well as discursive competence. Always according to the same authors, this approach increases student´s motivation because it presents the information in a consistent manner and in a real context of use, a factor that contributes to an increase of processing, which leads eventually to better learning.

Bearing in mind Grenfell and Hardy (2002), the future of modern language teaching in schools, aims at integrating language learning within the broader curriculum rather than alongside them bringing the aspect of language to the forefront of the teaching of any subject, which is why CLIL can be considered a catalyst in education.

As noted by Coyle (2008), a curriculum based on CLIL methodology has its foundations in the four Cs: *content, communication, cognition and culture.* These four components must be integrated and not considered separate entities, in order to ensure consistent and innovative pedagogical approach with the underlying philosophy of this approach. For this approach to be effective, curriculum content must be relevant, meaningful and cognitively demanding for students, but always bearing in mind the potential development of apprentices. The fact that learning takes place in a context of interaction and negotiation of content boosts an increase in communication and language development.

Fig. 1- Framework for CLIL
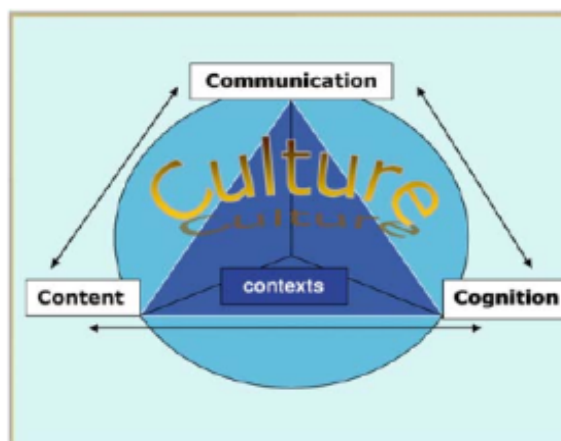
The 4Cs framework for CLIL (Coyle, 2005).

Authors like Mehisto, Marsh and Frigols (2008); Coyle, Hood and Marsh (2010) , suggest that the most characteristic feature of CLIL is the large number of different practices covered because learning occurs in a non- single knowledge transfer and passive role by students . These interactive strategies

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are used in order to promote the construction of learning through a foreign language. They are authentic, participatory and collaborative, thus increasing the communication in the classroom that teachers enable using scaffolding activities; both of a cognitive and linguistic nature, thus leading students to future autonomy.

It is of great interest the contribution given by Lemke (1997, p.p. 12) when he states that "language is not only vocabulary and grammar, but a system of resources to build meanings. We need the semantic of the language since any idea; concept or particular idea comes to exist only in terms of the relations with other concepts or ideas".

Profile of the CLIL teacher according to experts in the field

If we take into account the different definitions of CLIL and the challenges it implies for any teacher undertaking this new approach, CLIL prospective or in-service educators need three separate but intertwined abilities in order to operate under this new methodology: good target language command, content knowledge, and CLIL specific methodology (Pavesi, Bertocchi, Hofmannová, and Kazianka, 2001; Marsh, 2002).

Following Pavesi et al. (2001) the competences needed by CLIL teachers include:

- Knowledge of the L1 to understand learners' difficulties and a good command of the language used for instruction.

- Good knowledge of the content subjects.

- Production of lesson plans.

- Planning and organization of lessons according to cognitive demands.

- Gradual content and language progression.

The teacher competences required for successful CLIL teaching in real classrooms are extensive and clearly detailed in *The CLIL teacher´s competencies grid* (Bertaux, Coonan, Frigols, and Mehisto, 2009), but can be summarized as follows (Mehisto, Frigols, and Marsh, 2008, p.p. 232-236):

1. Knowledge of methodology for integrating both language and content.

2. Ability to create rich and supportive target-language environments.

3. Ability to making input comprehensible.

4. Ability to use teacher-talk effectively.

5. Ability to promote student comprehensible output.

6. Ability to attend to diverse student needs.

7. Ability to continuously improve accuracy.

The Teacher´s competence grid is a tool for reflection and guiding professional development for future and currently in-service CLIL teachers. It represents a skills set to be aimed at in CLIL.

According to Hillyard (2011), the teacher competences needed for CLIL are extensive and require considerable assimilation time for any educator taking up a CLIL program. As far as professional skills

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are concerned, teachers need to be knowledgeable at defining CLIL and adapting it to the local context, being able to integrate it into the curriculum and making sure of taking quality measures.

One of the major challenges in adhering to a CLIL approach has to do with Cummins´ Basic Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) (Cummins, 1979; and Swain, 1996). These authors differentiate these two terms claiming that teachers need to have the ability to develop the language skills needed in social situations so that students can interact with other people, as well as the language needed to success in academic learning. This issue is a big challenge for the CLIL teachers, since they have to integrate the development of both within their lessons; on the one hand, because students need to learn conversational language in order to succeed socially in the foreign language, on the other hand, academic language refers to formal academic learning which includes listening, speaking, reading, and writing about subject area content material. This level of language is needed for students to succeed in school since they need to learn thinking skills alongside the language and content knowledge, (Coyle, 2006).

Taking into consideration Marsh, (2002), CLIL teachers should be proficient in the content area and at the same time have a broad knowledge of the foreign language, thereby providing optimal conditions for students' communication. This author claims as well that CLIL teachers must understand the difference between language learning and language acquisition and in regards to methodological aspects a CLIL teacher must introduce activities that link language and subject aspects. Similarly to Pavesi et al. (2001), Marsh (2002) explains that in addition to using teaching strategies, teachers should promote the following goals:

- Interaction for the understanding of meaning
- Learners' use of communication strategies
- Recognition of the importance of information and communication technology.

According to Graaff, Koopman, Anikina and Westhoff (2007), teachers have to base their teaching on five fundamental principles:

1. Provide students with demanding input but appropriate to their level of cognitive development.
2. Build teaching activities on meaning, not so much on form.
3. Base their teaching process on activities focused on the form in relation to the content.
4. Promoting oral production abilities.
5. Assist students in the learning of communicative strategies in order to facilitate and compensate communication.

Instrument

The questionnaire seemed to be the most appropriate instrument to reach the teachers in the sample, who come from public and semi-private school settings. The questionnaires were delivered personally by the researcher to each of the aforementioned schools helped by Faculty colleagues, explaining to teachers the purpose of the investigation. Once completed, the questionnaires were collected and fed into an Excel file from which graphs and tables were produced.

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The questionnaire consists of two parts. The first part has eleven unnumbered questions pertaining to *section 1*, regarding personal information and *section 2*, concerning cultural and professional information. The variables of the first part have been used for the analysis that would serve the purpose of making a portrait of who these teachers are and what the teachers of this population are like.

The second part consists of 18 numbered questions. These 18 questions are specifically linked with the work of the teachers surveyed as teachers in the 2nd language, as this aspect is the main reason for the questionnaire. Another reason for numbering only the second part and not the first is to avoid the demotivating factor that sometimes influences people who have to answer questionnaires.

The questionnaire consists of the following sections:

Section 1: Status of personal data
Section 2: Cultural and professional data
Section 3: Language skills and indications about the context of L2 acquisition
Section 4: Professional development regarding CLIL methodology
Section 5: Experience in CLIL
Section 6: Organization of the CLIL methodology
Section 7: Management role in CLIL
Section 8: Self-assessment of skills and training needs

The data relating to language skills, context of L2 learning and training received before the teacher began using the CLIL approach are vital and meaningful to explore in greater depth.

With respect to *section six*: Organization of the CLIL methodology ,we have referred to some aspects considered as crucial in the literature for successful teaching in the use of this methodological approach: prior knowledge of the content, cooperation between content teachers and foreign language teachers, materials used for the development of the teaching-learning process (among others, Mehisto, Frigols and Marsh, 2008) and have been transformed into indicators that could represent significant areas to explore in greater depth.

A later section of the questionnaire concerns the self-assessment of teachers' skills regarding linguistic and methodological competence needed for teaching in the CLIL methodology. These questions are based on the tool developed by Newby (2008), which aims to educate the current and future teaching professionals in the field of foreign language teaching as well as in the use of a reflection process on the knowledge and skills to be acquired or extended for good practice in the classroom.

The answers to the various questions of the collected questionnaires are automatically converted into an Excel text type database, which later had to be coded numerically for statistical treatment. This codified database became an Excel SPSS database. For the statistical treatment of the data IBM SPSS Statistics 19 was used.

We have used descriptive statistics which are common in categorical variables: frequency, pie and bar charts. Excel has also been used to perform graphics that SPSS could not support. The Chi-square test of homogeneity and independence was also used when we considered necessary in order to check the existence of significant majorities and / or statistically significant associations. The criterion in these trials was the usual significance (alpha 5%).

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Sampling

In order to determine and quantify the population for this study we take as basis all teachers who teach a non-linguistic curricular area in a second language, in our case, English, in the 2011-2012 school year, in bilingual schools in the city of Salamanca.

The population involves the whole number of teachers participating in the program. We compiled a corpus of 72 questionnaires out of 81 CLIL teachers. The amount of bilingual schools in the school year 2011-2012 operating in the CLIL methodology was 29.
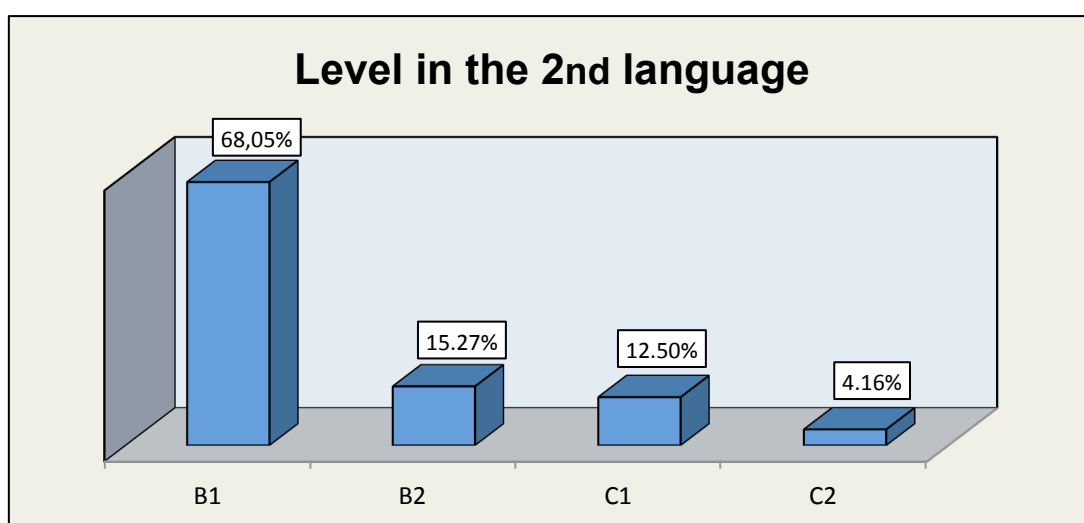
Results

For the purpose of this article, we´ll only mention those results pertaining to some of the questions from sections 4, 6, 7 and 8, which are related to the training received before embarking on the CLIL approach as well as issues concerning how these teachers understand the organization of the CLIL methodology. Likewise, we include self-assessment of competencies that teachers claim to have with respect to this methodology and the training needs they say they need to successfully teach in this new educational context.

Professional development concerning the CLIL methodology

The aim of this section is to find out their level in the second language according to the Common European Framework of Reference for Languages, as well as their involvement in refresher courses and continuing education initiatives in the workplace. It also asked about training done before starting and using the CLIL methodology.

Fig. 2- Level in the 2nd language

As we can observe by the results obtained, we can conclude that a high percentage of CLIL teachers claim to have a B1 level of the target language, in our case, English. Only 15,27% said to

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have a B2 level, and adding the percentage obtained in the C1 along with C2 level of English, amounts up to 16,66% of teachers.

Fig. 3 – Before starting to operate with the CLIL methodology
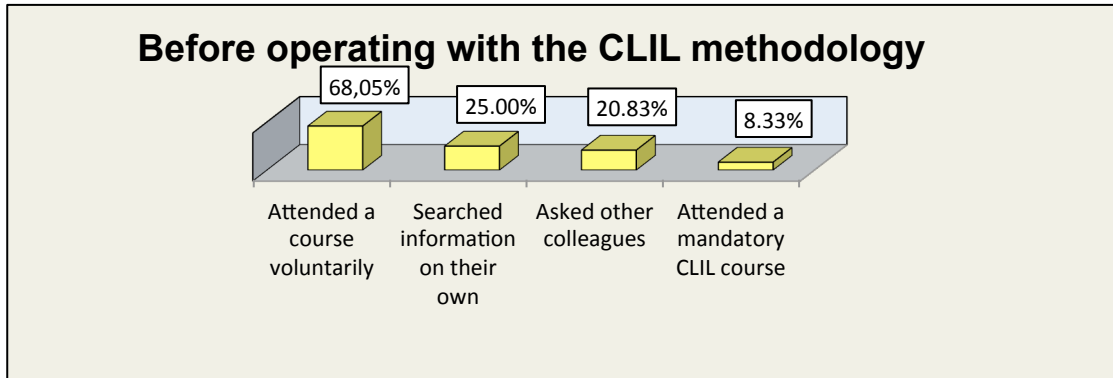
According to the data obtained, 68, 05% of teachers claimed to have attended a CLIL course voluntarily and only 8, 33% said to have attended a mandatory CLIL course. These two percentages together amount to 76, 38 % of teachers who stated to have some kind of training before operating with this new approach. On the other hand, 45, 83% of the interviewed teachers claimed to have obtained information using other ways. The first option is the most statistically significant against the other ones with p<, 01 (Chi^2=21, 00; 3 gl; p=, 001).

**Fig. 4– Training time with the CLIL methodology**
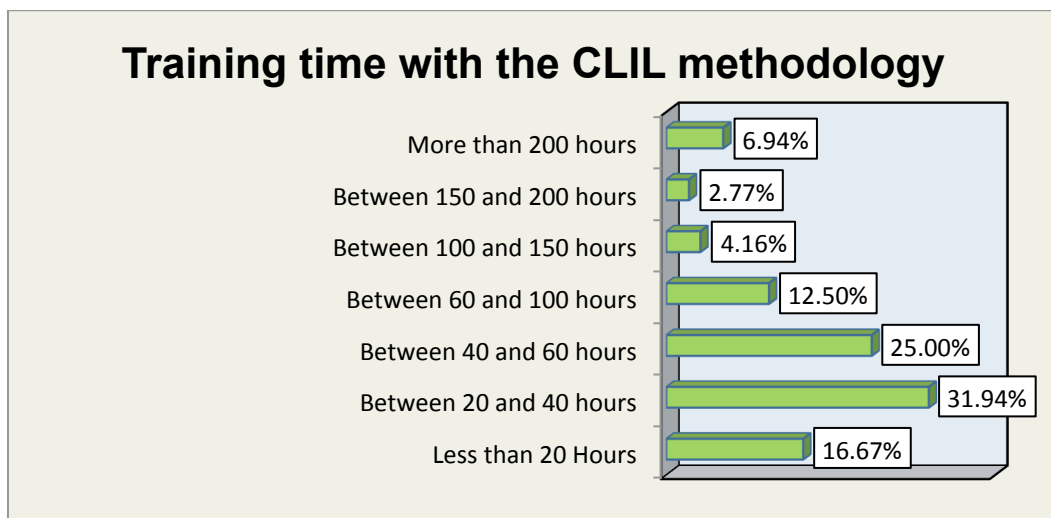
As regards to the time spent in training to become a CLIL teacher, 31,9% (23 teachers) claimed to have between 20 and 40 training hours, as well as 25% between 40 and 60 hours. These two data together amount to 57% of the whole sample. It highlights that almost 17% (12 teachers) said to have less than 20 hours of CLIL training, while the rest of teachers interviewed have more than 60 hours. This will be the cut-off point since those teachers with less than 60 training hours and those with more than 60 show that a difference exists p<,01 (Chi2=36,50; 6 gl; p=,000). This result allows us to confirm that most of the teachers have had less that 60% of CLIL training (73, 6% of the sample). We can say

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that there is almost an equivalent percentage among those having less than 20 hours, between 20 and 40 and between 40 and 60 hours.
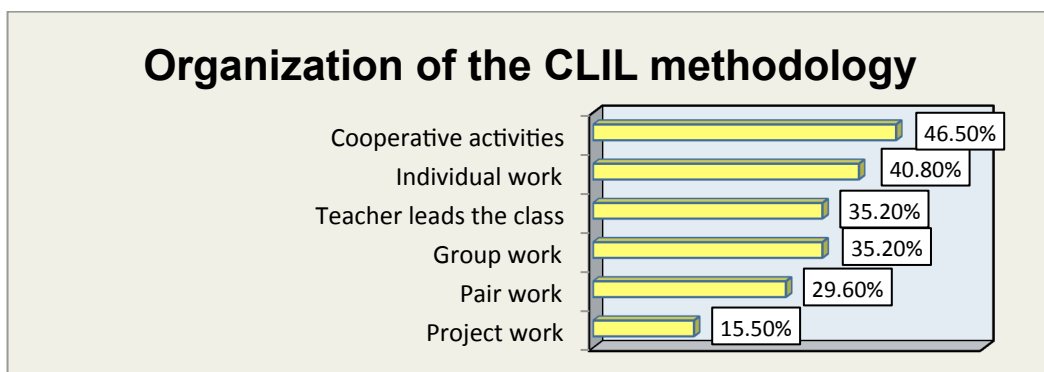
Organization of the CLIL methodology

The aim of this section was to find out how CLIL teachers planned the teaching of the different subjects taught through a second language, whether these were based on an annual plan or on particular activities of content taught. It also wanted to ascertain the decisions taken by CLIL teachers regarding the organization of their teaching.

Fig. 5 – Teaching with the CLIL methodology

Your CLIL methodology is based on:

29,16% — Particular activities of content taught

70.83% — Based annual plans of the contents taught
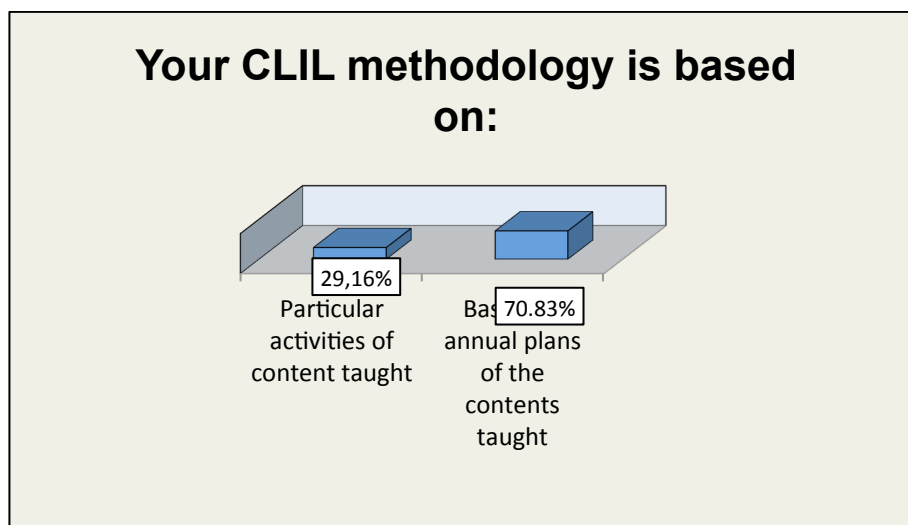
In respect to how teachers organize their CLIL teaching we can observe that the majority of participants (70,8% (51 teachers) said they base their teaching on annual plans of the content taught. 29,2% of teachers answered to only planning some particular activities of content taught through the foreign language.

Fig. 6- Organization of the CLIL methodology

Organization of the CLIL methodology

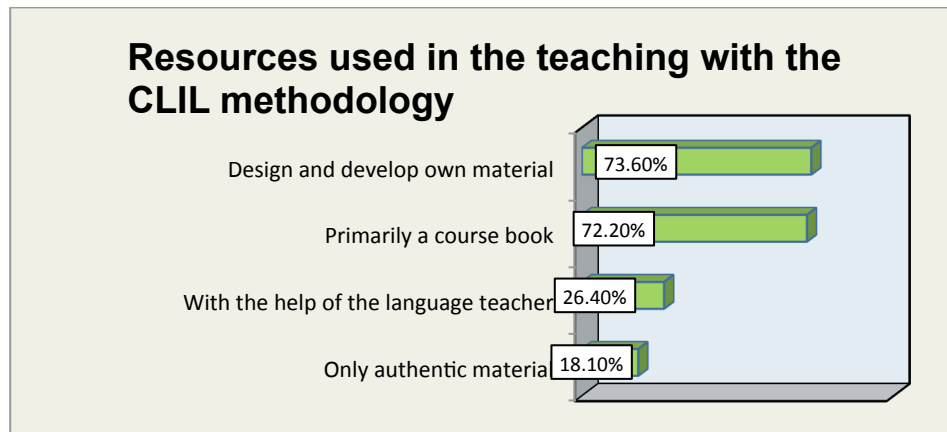|	
Cooperative activities	46.50%
Individual work	40.80%
Teacher leads the class	35.20%
Group work	35.20%
Pair work	29.60%
Project work	15.50%

As far as the organization of the CLIL methodology is concerned, participants could give several answers as regards which of the options offered they used more frequently. Among all of them 144 options were chosen. Out of these 144, 33 (22, 9%) pertained to cooperative activities, which is 46, 5% of teachers. The second most frequent option belongs to individual work (20, 1%). As for the rest, we have found a technical draw with 25 answers between those who said to have students working in

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groups and those claiming that teacher leads the lesson most of the time. Pair work was chosen by 29, 6% of participants and project work only used by 15,5% of teachers. When looking for statistically significant differences, we can say that we found p<, 01 (Chi2=16,47;5 gl; p=,006), maybe because of the little use of project work. So except for this, there isn´t statistically significant differences among the rest of options p<,05 (Chi2=4,55; 4 gl; p=,336) and we can then conclude that any of them is equally used.

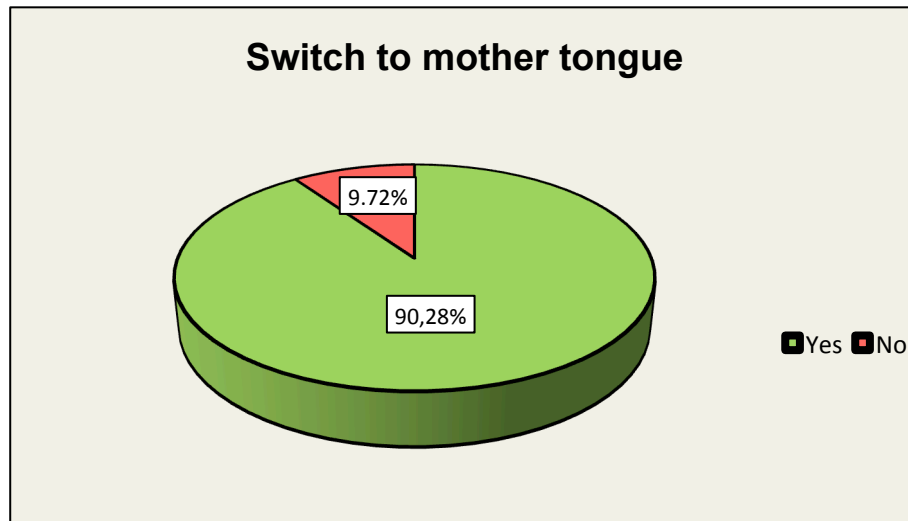### Management role in the CLIL methodology

The aim of this section was to inquire about how teachers managed their teaching process in terms of resources used, or second language presence in their lessons.

Fig. 6– Resources used in the teaching with the CLIL methodology

Resources used in the teaching with the CLIL methodology

Resource	Percentage
Design and develop own material	73.60%
Primarily a course book	72.20%
With the help of the language teacher	26.40%
Only authentic material	18.10%

As regards the materials CLIL teachers use with the CLIL methodology, participants could give us more than one answer. In fact, 52 (38%) claimed to use a course book as their main source. On the other hand, 53 (38,7%) of teachers said they design and develop the materials themselves. As for the rest, only 26,4% claimed to prepare their materials with the help of the language teachers and 9,5% (13) only use authentic materials. When comparing the two first options of materials with the other two, we have found statistically significant difference p<, 01 (Chi2=55,47; 3 gl; p=001).

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**Fig. 7 – Switch to mother tongue when delivering content**

As we can infer by the results obtained, we can say that 90,3% (65 out of 72) claimed to switch to the mother tongue during the lessons when necessary. There is a high statistically significant difference $p<.01$ (Chi2= 46,72; 1 gl;p=,001).

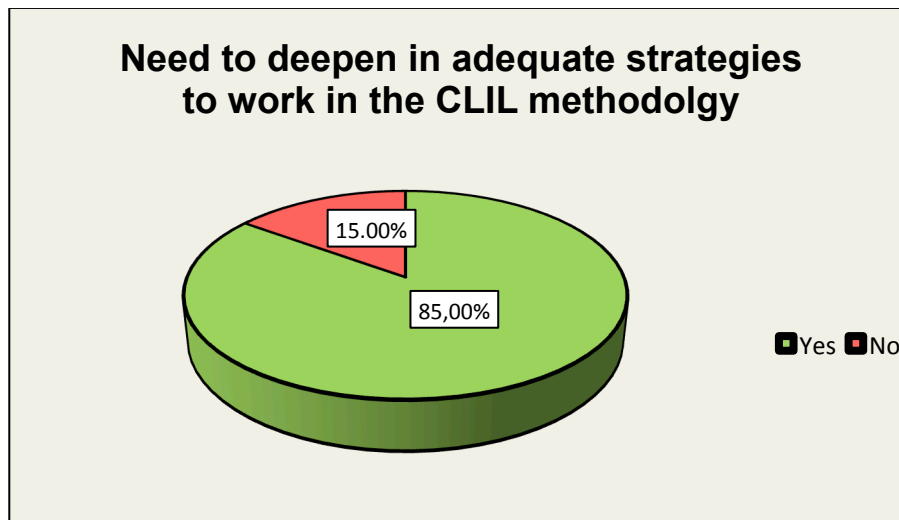### Self- assessment of professional competences and training needs

The aim of this section was to invite teachers to reflect upon some of the abilities CLIL teachers need in order to offer a successful and efficient teaching. It also aimed at finding out their training needs regarding the use of this approach.

Fig. 8- Have the necessary competences to teach within the CLIL framework
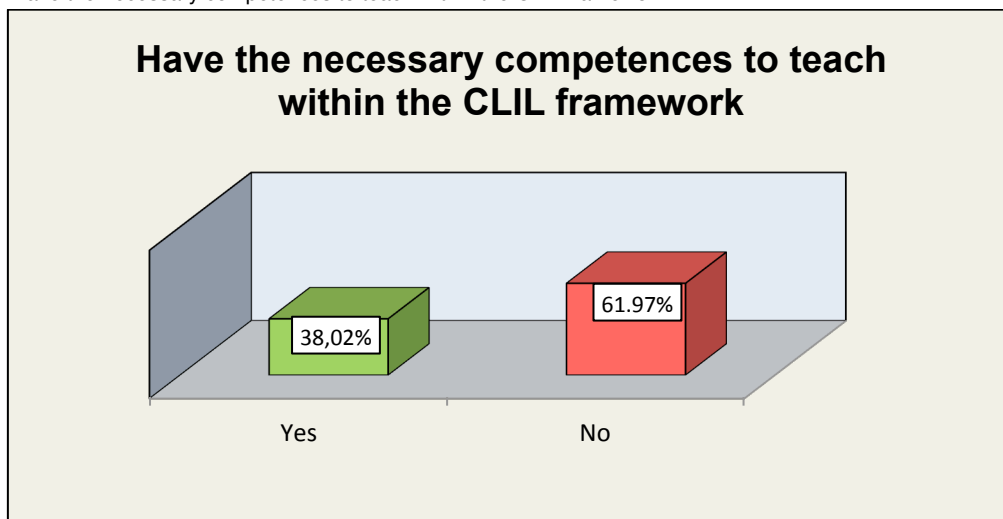
And finally, asked whether they believe they had the skills to teach in the context of CLIL methodology, a respectable 61.97% (44 of 72) responded negatively, compared with 38.02% remaining (27) that answered affirmatively. This gives us statistically significant data with $p <.05$ (Chi 2 = 4.07, 1 df, p =, 044).

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Fig. 9 – Need to deepen in adequate strategies

From those 44 participants who claimed not to have enough skills to work within the CLIL methodology and having the option of answering about their needs, 33 (85%) indicated the need to be better trained in this methodology, and 11 (15%) added that in addition to this improvement in CLIL training methodologies, they should also need to improve their knowledge in the specific curriculum subject taught through the second language.

Discussion

Once we have exposed the main descriptive data, we will then present the results of the objectives proposed for the description of this research.

In this sense, our *first objective* had to do with the level of English of teachers working in the CLIL methodology. In this sense, participants were asked to mark the level they had in the second language according to the Common European Framework of Languages (2001). Well, the result obtained showed that most teachers claimed to have a B1 level, which is the highest percentage and a minimum number of teachers claimed to have another level in terms of proficiency. We can confirm that despite the implementation of more than a decade of the Bologna Process, there still exists a homogeneous way in the linguistic level of most CLIL teachers. If we take into account Krashen (1985), we can say that a B1 level of linguistic competence is poor in order to give enough input to students for learning to take place. The same can be applied to Swain and Lapkin (1995) and their Output Hypothesis as well as Mehisto, Frigols, and Marsh (2008), since it is expected that CLIL teachers can enable student´s production for processing the content taught through negotiation of meaning. Currently, the various universities in Spain, only credit a B1 level upon completion of the 4 year-course in foreign language studies. This is causing a mismatch between the requirements for accessing a position in schools with bilingual section and the degree awarded upon completion of studies.

The second objective of this study wanted to verify that most CLIL teachers received little or no training in this methodology before starting to use it. According to the results, the training that preceded the CLIL project participation was outlined as substantial training held in the town itself. Nearly half of respondents say they have attended a CLIL course voluntarily, probably supported by a

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personal effort in order to learn about the new challenge they had to assume. Another percentage much lower learned about this new methodology on their own, guided by a self-training decision probably derived from reading literature inherent to CLIL methodology, this is a positive factor but it can mean a lack of appropriate proposals. As Hillyard (2011) posed, the competences needed for carrying out CLIL require a long assimilation time so that they can be confident about integrating content and language. Also Lemke (1997, p.p.81) said that:

> *"...educators are beginning to realize that success in learning academic areas takes place through the domain of specific language patterns of these materials. It is through this language that the content is learned and students are evaluated. Without good oral and written proficiency in the second language, students will not have the sufficient tools to demonstrate their knowledge. "*

Also Navés and Muñoz (1999), claim that CLIL teachers are often competent in the foreign language, but have no specific training in content subjects. According to these authors, they typically lack the theoretical and methodological background to plan content lessons as well as adapt, or design teaching materials.

Regarding *the third objective*, we can confirm that the subjects taught through a second language, are based on annual plans of the content taught, endangering, in the opinion of the researcher, the acquisition of the curricular matter if lacking the adequate methodological and linguistic competence in the use of this new approach(Graaf, Koopman, Anikina and Westhoff, 2007; Marsh,2002).

According to Coyle (1999) CLIL focuses both on content and language learning, so its implementation needs approaches, methodologies and learning strategies from those in traditional foreign language, so it is essential to design courses that cater for these needs.

Mohan (1986) also proposed a model for the organization of the curriculum based on a knowledge framework that relates thinking and language. In order to develop content and language according to this model, teachers guide students from experiential learning to expository learning adapting when necessary their teaching styles (Graaf et al. 2007).

It is worth mentioning Clegg (2007) when he claims the importance for teachers to identify the language demands and language support in educating through a second language since teaching subjects in a second language to learners who are not yet fluent in the language of learning increases the cognitive demands of lessons. If teachers are to organize the teaching of curricular subjects based on annual plans, they have to be knowledgeable about the pedagogy which compensates for these increased language demands since this type of education may be less effective without them.

The fourth objective referred to how CLIL teachers designed and developed the material they needed for their subjects. This question allowed participants to respond with several options since we were aware of the fact that in this new approach, there is still a lack of suitable materials for carrying out an integrated content and language teaching, thus, forcing teachers to use different materials or even produce their own resources. A high percentage of respondents say they use a textbook as the main support, although another fairly significant number say they design and develop materials themselves. This data indicates the effort made by educators to develop or adapt instructional materials. As noted by Coyle (2008), curriculum content must be relevant, meaningful and cognitively demanding for students, so teachers must make the necessary efforts to design or adapt materials in

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order to get their meaning through as well to adjusting their teaching to the potential development of apprentices.

The fifth objective wanted to find out how CLIL teachers organized their teaching process in regards to students' grouping. According to the results obtained we can say that CLIL methodology is based on the use of collaborative and interactive activities so that communication and development in the foreign language can take place (Coyle, 2006; Dalton-Puffer, 2009, Frigols and Magali 2009). All these authors state that for a successful CLIL learning context, students take an active role, and teachers must engage students in authentic, participatory and collaborative activities, thus increasing communication and cognitive development. According to Coyle (1999) and Vigotsky (1962) interaction in the learning process is fundamental to the development of language and cognition since they believe that community plays a central role in the process of making meaning. CLIL can present an opportunity for learners to use language in context which are both appropriate and communicative. For this to happen teachers need to provide opportunities so that children can practice content vocabulary and structures through engaging students in group dynamics. According to Coyle, Hood and Marsh (2010), successful CLIL practice is determined by the features of strategies used in the lessons, such as involving a partner, work in groups and project work. These cooperative forms of work are linked with the educational principle of learners' autonomy and construction of meaning.

The sixth objective wanted to demonstrate that most teachers lacked the necessary competences to work with the CLIL methodology and according to the data obtained we can confirm that more than half of the teachers interviewed (61,97%) claimed to lack the necessary skills to teach within the CLIL framework. These results are supported by Clegg (2002) when he said that teaching a subject in a second language is not easy because it requires a specialist pedagogic expertise. This idea is followed by Grenfell and Hardy (2000) who describe the four competences in the knowledge domain: knowledge of specific content matter, knowledge of specific pedagogical aspects related to any given subject, foreign language competence and finally, pedagogical aspects of the target language. If we analyze each of the competences mentioned before, we can understand why teachers state not to be prepared enough to face this new educational trend. In the first place because although content is acquired during the academic years at university, the pedagogical aspects are usually neglected or missing during initial teacher training, so this becomes an issue when facing CLIL. A second aspect to bear in mind is the level of linguistic competence in the foreign language and the specific pedagogical aspects of this discipline, in as much as CLIL teachers need to manage the teaching of content matter using the target language and applying pedagogical skills specific of the foreign language. According to these authors, the lack of any of these domains diminishes the quality of students' ´learning or even worse, causing the failure of the teaching activity.

Conclusions

This study has attempted to identify the effects of the CLIL methodology on in-service teachers as regards to language and methodological decision-making and proposes pre-service and in-service teacher training in order to develop the theoretical and methodological competences required for effective CLIL teaching.

In the new paradigm of CLIL programs in our schools where both teachers and students are to develop a more efficacious and speedy language development, one of the areas that need attention

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on the part of educational administrators and education ministries is the design of initial teacher training programs in this new approach.

The growth of bilingual and multilingual programs in Spain and particularly in the region of Castilla y León, reflecting both social policies and an increasing interest in learning other languages has only started.

The results obtained may help to shed some light on the design of teacher training courses. The learning of content through a foreign language is not only changing the language of instruction but changing the students´ mind into a new reconceptualization in the acquisition of content. This new educational trend seems promising for eventually bridging the gap between the failure of traditional approaches and the requirements to survive in the global society of the 21st century.

As a final remark, and regarding CLIL considerations, it is essential that in addition to methodological issues and questions about initial teacher training planning, CLIL stakeholders include in their agendas the conducting of empirical research of not only students 'language acquisition but also content learning development so as to help CLIL to be considered a more robust and reliable approach.

Future lines of investigation

Based on what we have highlighted in the preceding paragraphs we believe that training teachers for an effective CLIL teaching cannot be substantiated only in improving and upgrading the linguistic competence of teachers which is clearly necessary in order to teach curriculum content in a second language.

It would be appropriate to begin a journey into the CLIL methodology encompassing the effort made by teachers in linguistic and methodological improvement accepting a change that has a structured professional identity already. This kind of change requires flexible, open and permeable teachers to the medium.

From a combined reading of the indicators some contradictions emerge that are cause for reflection. For example: When we talk about linguistic and communicative competence, what level of competence do we imagine? Is it possible that teachers with a B1 level of competency will be able to carry out the teaching of subjects through a second language in the best possible conditions?

We are convinced that the success of CLIL, in what refers to the acquisition of a second language, is the best scenario to which we can expose our students today. The guidelines that are currently being taking by education authorities make clear that there is a concern to train competent citizens not only in training and learning of foreign languages but in new ways to deal with the acquisition of curriculum content, where a more active involvement of students in the process is considered feasible.

As evidenced in the description of CLIL teacher profile, a future line of work that is seen as essential, has to do with the training needs for this type of teaching which certainly cannot emerge from a standardized training. A specific training needs to be designed in order to meet the different and varied skills that teachers who deliver their content under the CLIL methodology should show including: cooperation, flexibility and methodological variety, interdisciplinary, self-learning and critical thinking.

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We believe that the challenge of this new approach has many difficulties and clearly needs a significant investment in ongoing teacher training so as to make it really effective and valid. These premises, emphasize not only high-communicative language proficiency in the second language as a key factor in the transmission of content, but a good preparation of specific teaching strategies that facilitate curricular integration so there is no risk of subtractive bilingualism, or loss in both languages.

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