



## **CLIL (Content and Language Integrated Learning) Methodological Approach in the Bilingual Classroom: A Systematic Review<sup>1</sup>**

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The CLIL (Content and Language Integrated Learning) approach has spread widely in many European countries, with the aim of promoting multilingualism through the teaching of non-linguistic subjects in foreign languages, an objective of the European Commission. This methodology implemented in bilingual programmes, especially in science teaching, provides students not only with communicative and linguistic benefits, but also with the acquisition of knowledge of the subject with a high degree of motivation and interest, enhancing their cognitive skills. However, research on CLIL does not seem to reach unanimous conclusions on the learning effects in the classroom. Therefore, the purpose of this research is to identify the results of the CLIL approach in relation to English language acquisition and learning, as well as to the other curricular disciplines in Pre-school, Primary and Secondary Education in the available scientific literature. The results of the present systematic review indicate that, in the last decade, much research has focused on linguistic benefits rather than on content learning. The types of research design developed by the selected studies do not show statistically significant differences according to year of publication or country of origin. Similarly, no significant associations were found between educational level and language of instruction. The studies reviewed reveal improvements in curricular subject knowledge and point to its progress, especially in the context of bilingual programmes in Spain. In the light of these results, it can be stated that studies on progress towards quality bilingual education are still scarce, and that there is an emerging need for longitudinal studies that address the different educational stages from a multidisciplinary perspective.

Keywords: CLIL, primary education, secondary education, English language, systematic review

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## INTRODUCTION

Several decades ago, international bilingual education began to take hold globally. In fact, "there are more bilingual or multilingual individuals in the world than monolingual ones" (Álvarez-Cofiño, 2019, p. 36), and the number of children educated through a second language is higher than those educated only in their mother tongue (Baker, 2011).

Various innovative educational approaches to foreign language learning have obtained good results when learners have the opportunity to be placed in real situations in which to acquire language skills (Tough, 1991). Therefore, one of the essential factors in the language acquisition process is the opportunity to acquire learning in a real context, capable of offering natural situations in which to develop the teaching-learning process (Álvarez-Cofiño, 2019). This foreign language teaching-learning process has changed in recent years from being centred on the function of language in its structuralist approach to focus on its content and meaning (communicative approach), aimed at developing the learner's communicative skills, as in the informal learning of the mother tongue (Reyzábal, 2003).

One of the best-known models of communicative competence is that of Canale and Swain (1980), later elaborated in Canale (1983). These authors categorised competence into four sub-competences or dimensions: grammatical or linguistic competence, discourse competence (textual cohesion and organisation), sociolinguistic competence (register, language varieties and socio-cultural rules), and strategic competence (compensation strategies, verbal and non-verbal). All the competences described favour the acquisition of knowledge and skills to communicate in a foreign language.

Other studies also highlight the interdisciplinary nature of communicative competence (Trent, 2010), stressing the need to integrate content and communicative skills in language learning (Creese, 2010; Coyle et al., 2010; Lasagabaster & Ruiz de Zarobe, 2010). From this need to integrate content and communicative skills arises the CLIL (Content and Language Integrated Learning) methodological approach.

### CLIL approach

In the mid-1990s, there began to be a growing interest in language learning at European level, with the aim of equipping learners with the appropriate knowledge and strategies for an increasingly global Europe (Airey, 2009). The CLIL approach was the response of the European Commission (1996), with the priority objective of promoting the acquisition of a certain level of linguistic competence in at least three European languages. In order to achieve this plurilingual objective, the teaching of content through foreign languages was born.

CLIL, AICLE in Spanish (*Aprendizaje Integrado de Contenido y Lengua Extranjera*), refers to situations in which subjects or parts of subjects are taught through a foreign language, with a dual purpose: the learning of content and the simultaneous learning of a foreign language (Marsh, 1994). This approach is related to the successful Canadian language immersion programmes of the 1970s, developed with English-speaking

students learning French in real-life contexts (Dalton-Puffer et al., 2014). From this methodological approach, students achieve an optimal level of cultural understanding, linguistic diversity is considered, and it is an attempt to overcome the limitations of traditional teaching by integrating the curriculum (Fernández, 2009).

Integrated learning of foreign languages and other curricular content involves working on subjects such as history or science in a language other than one's own. CLIL is very beneficial both for the learning of other languages and for the curricular subjects taught in those languages (Sukardi et al., 2021). In fact, CLIL's emphasis on problem solving and 'know-how' makes learners feel motivated by being able to solve problems and perform tasks in languages other than their own (Navés & Muñoz, 1999). With the CLIL approach, learners increase their linguistic resources to carry out content learning, requiring mental processing that leads to significant gains in language acquisition (Marsh, 2004; Wolf, 2006; Coyle, 2007; Mehisto et al., 2008; Coyle et al, 2010).

In this sense, the integrated transdisciplinary approach to content also seems to favor the development of social competencies, and critical and creative thinking skills (social thinking) for the resolution of contemporary social problems (Ortega-Sánchez, 2022), evidence that has been very scarcely explored.

Despite the generalized positive correlation between content-integrated learning and the learning of certain target languages such as English, there are studies that relativize this relationship in the European context. The explanatory elements of this discrepancy have been placed in contextual factors such as teacher training, the political framework, age of implementation and extramural exposure to English (Sylvén, 2013).

Another stated limitation is the dependence of the cognitive gains of the CLIL approach on a possible negative affective component in learners. The potential inhibition in active problem solving by the existence of negative emotions has indeed been demonstrated in studies such as Otwinowska, A. and Foryś (2015). From this perspective, other studies have insisted on the influence of emotions, as mediators, on motivation, the use of executive functions and high-level learning strategies (Reilly & Sanchez-Rosas, 2021).

According to the scientific literature of recent years, there is an apparent predominance of quantitative studies on the linguistic area of the CLIL approach (Fehling, 2008; Rumlich, 2013) to the detriment of those focused on content (Piesche et al., 2016; Dallinger and Jonkmann, 2015). Although the CLIL approach has been well addressed from its definition and methodological strategies, it lacks a systematic analysis focused on the application of its pedagogical practices (Bauer-Marschallinger et al., 2021). Considering the evidence on the linguistic and communicative benefits of the CLIL approach, the aim of the present systematic review (first conducted so far) is, on the one hand, to identify and analyze the advantages, challenges, obstacles and results of CLIL methodology in research on teaching non-linguistic disciplines (NLD) (2014-2021), both from the acquisition and learning of the language, as well as from the learning of the content itself in the bilingual classroom in Early Childhood, Primary and Secondary Education. On the other hand, it seeks to test the existence of statistically significant differences between the research designs developed, the year of publication and its

country of origin, and identify the existence of significant associations between these designs and the language of instruction.

## METHOD

### Design and procedure

The methodology used corresponds to systematic literature review studies (Higgins & Green, 2008). This type of analysis differs from the traditional narrative review in being less prone to bias, more objective and detailed, more rigorous and explicit in the inclusion criteria of studies (Ortiz-Revilla et al., 2021, p. 227).

In the first phase of the research, the search databases were decided upon and the search process was carried out according to the PRISMA guidelines for systematic reviews and meta-analyses. These guidelines establish a list of 27 items for verification and a flow chart consisting of four phases (Leberati et al., 2009; Moher et al., 2009). The studies included in this review were the result of its selection through two search channels: one in the Web of Science (WOS) main collection database of Clarivate Analytics and the other in the SCOPUS database of Elsevier, during the month of December 2021.

The combination of words entered in the basic search option of each database was done in two fields. In the first, TOPIC, CLIL was typed, and in the second, AND; in TOPIC, the word *method\** was included. An asterisk (\*) was also added to the word term in order to collect the full desinence variants (Navío, 2005).

The first formalised search in the main WOS collection returned 478 results. We then proceeded to refine the set by applying the *document type* filter, using the selection *articles*. With this process, the database showed 310 articles, and 168 were excluded. The last filter applied was language, selecting and refining the search to studies written in English and Spanish. The new search showed a total of 289 articles that met the previous selection criteria, excluding, in this last search, 21 works.

The second search was carried out in the SCOPUS database, following the same steps and parameters applied in the initial search in WOS. The first search, carried out with the parameters CLIL and *method\** in *Title- Abstract- Keywords*, yielded 361 articles. Finally, the search was limited to the type of document *article*, obtaining 255 studies and excluding a total of 106. Finally, filtering by language was carried out, with articles written in English and Spanish, which returned a total of 245 studies and excluded 10.

The WOS and SCOPUS databases showed a volume of 534 potentially valid articles for the systematic review. The next phase of the study consisted of removing duplicates from both databases. A total of 153 duplicate articles were obtained; once excluded, the title, abstract and keywords of 381 articles were read, according to the following inclusion criteria:

1. The terms *CLIL* and *method* appear in the title, *abstract* or keywords.
2. The studies refer to the field of education.

3. The articles develop methodological proposals for pre-school, primary and secondary education.
4. The articles refer to the acquisition of curricular and foreign language content in the CLIL methodology applied.
5. The articles explore the CLIL methodological approach in depth, providing conclusions on its educational impact in the bilingual classroom.

In application of criterion 2, 24 studies not linked to the field of education were excluded. Criterion 3, on the other hand, led to the exclusion of 267 articles, in this case focusing on higher education and teacher training. Finally, in this second phase, 67 articles unrelated to the acquisition of curricular content and foreign language at different educational stages - criterion 4 - were withdrawn. This phase was carried out with particular care in order to ensure the reliability of the corpus. In this sense, the full text was read when entries raised doubts.

In the third and final phase, the 23 selected studies were read, finally eliminating a total of 4, after identifying the absence of a marked correspondence with results and conclusions of educational impact in the bilingual classroom, both for language acquisition and curricular content. Figure 1 shows the PRISMA flowchart generated, which synthesises the results of the phases applied.

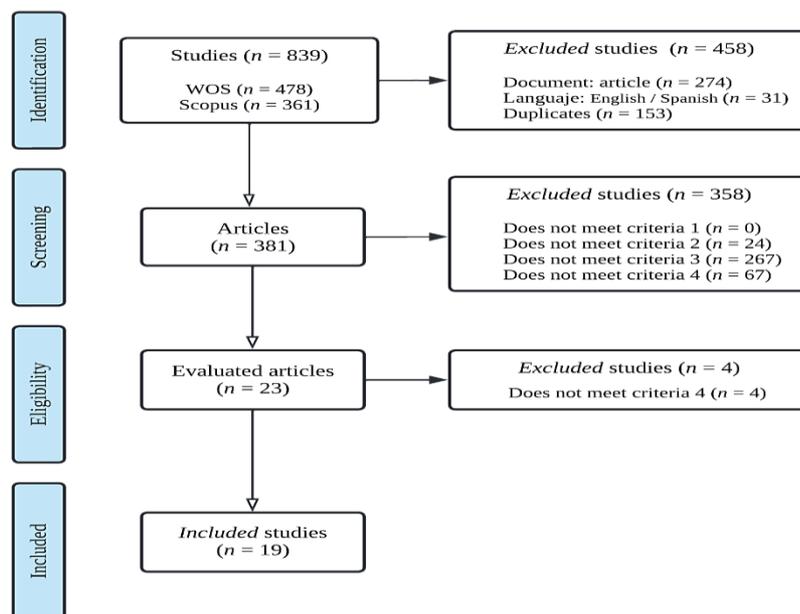


Figure 1  
PRISMA flowchart for systematic literature review and study selection  
Source: Elaborated by the authors

**Data analysis**

For the collection and analysis of information, a template was designed and configured to collect data on the following bibliometric parameters: author(s), journal and year of publication, country where the study was carried out, type of study, educational stage, areas in which the CLIL approach is applied and foreign language used.

The data pertaining to the parameters author(s), journal and year of publication were located in the identifying information of the research. However, in the collection of data referring to the rest of the parameters, a process of detailed reading and understanding of the data had to be carried out.

**FINDINGS**

In order to present the results obtained from the analysis of the selected corpus, this section has been subdivided into two sections: The first aims to provide a description of the temporal distribution of the research, and of the studies under analysis from its general parameters. The application of the first inclusion criteria (screening phase) made it possible to define a panoramic view of the temporal distribution of the studies since 2005, and to identify a notable increase in scientific production from 2016 and 2017 onwards. In this phase, it was also possible to define, in general terms, the educational stage in which the research was carried out, mostly referring to the university environment, and to initial and ongoing teacher training.

The second section shows the most relevant aspects of the in-depth review. Although the CLIL methodological approach has spread widely in Europe, the number of studies finally obtained is not, however, numerous. A good number of these studies focus on higher education or show only the linguistic and communicative benefits of the CLIL approach. Consequently, there are few studies focusing on the content of the different curricular areas and on the acquisition of foreign language skills.

**Descriptive and inferential analysis**

Table 1 lists the 19 studies finally selected, according to the journal to which they belong, the year of publication, the country of development and the type of study.

Table 1  
Description of the articles analysed

Author(s)	Journal	Year	Country	Type of study
Beaudin	<i>English Teaching and Learning</i>	2021	Taiwan	Mixed descriptive
Bermejo & Morales	<i>Frontiers in Psychology</i>	2021	Spain	Mixed descriptive
Binterová, Petrásková, & Kominková	<i>New Educational Review</i>	2014	Czech Republic	Case study
Carrión Candel, Pérez Agustín, & Giménez de Ory	<i>Digital Education Review</i>	2021	Spain	Mixed descriptive
Fernández-Barrera	<i>Foro de Educación</i>	2019	Spain	Mixed descriptive
García-Centeno, de Pablos Escobar, Rueda-López, & Calderón Patier	<i>Plos One</i>	2020	Spain	Mixed descriptive
Gil-López, Siena-Díaz, & González-Villora	<i>Sportis</i>	2019	Spain	Quasi-experimental
Lamb & King	<i>European Physical Education Review</i>	2020	England	Case study
Mancipe & Triviño	<i>Colombian Applied Linguistics Journal</i>	2019	Colombia	Multiple case study
Moreno de Diezmas & Matthew Hill	<i>Elia-Estudios de lingüística inglesa aplicada</i>	2019	Spain	Longitudinal
Naddeo	<i>International Journal of Language Studies</i>	2019	Italy	Mixed descriptive
Nurdillayeva, Baisalova, & Zhuman	<i>Bulletin of the University of Karaganda- Che</i>	2020	Turkestan	Mixed descriptive
Ouazizi	<i>Latin-American Journal of Content &amp; Language Integrated LA-CLIL</i>	2016	Belgium	Mixed descriptive
Pastrana, Llinares, & Pascual	<i>Zeitschrift Fur Erziehungswissenschaft</i>	2018	Spain	Mixed descriptive
Rolletschek	<i>Language Teaching Research quarterly</i>	2021	Germany	Quasi-experimental
Salvador-García, Chiva-Bartoll, & Capella-Peris	<i>International Journal of Bilingual Education and Bilingualism</i>	2019	Spain	Quasi-experimental
San Isidro & Lasagabaster	<i>Language Teaching Research</i>	2019	Spain	Longitudinal mixed
Tagnin & Ni Riordain	<i>International Journal of Stem Education</i>	2021	Germany and Italy	Multiple case study
Warburton	<i>Tejuelo. Didáctica de la Lengua y de la Literatura</i>	2017	Spain	Mixed descriptive

Source: Elaborated by the authors

It can be seen that almost all publications are located on the European continent. Spain ( $n = 10$ ) is the country with the highest number of publications on the CLIL approach, followed by other European countries. The only samples from other continents are Taiwan, Turkestan (Asia) and Colombia (America), which are represented in the study.

The distribution of the sample, according to the content area or non-language discipline taught in a foreign language (DNL), shows the existence of a majority trend centred on the social sciences around history and art history (21.05%), natural sciences (mainly STEM -Science, Technology, Engineering and Mathematics- approach) (15.78%), mathematics (15.78%) and physical education (including its treatment in science) (15.78%), followed by biology and its STEM integration (10.52%). Less representative, on the other hand, are studies related to music (5.26%), chemistry (5.26%), technology (5.26%), and other curricular subjects integrated from different subject areas (science, technology and mathematics) (5.26%). All the investigations correspond to classroom practices carried out in English as a foreign language, except for one, carried out in French in the area of physical education.

With regard to the type of article, it is found that most of the works use mixed research methods, based on the application of qualitative and quantitative data collection instruments and techniques, followed by case studies, quasi-experimental studies and, to a lesser extent, longitudinal studies. The instruments and techniques applied in this research are multiple and varied, depending on the research design.

Most of the studies have been published in high impact journals on subjects related to language learning and teaching, linguistics, bilingual education and different curricular areas. The following is a descriptive list of the final studies selected and its main results (Tables 2a, Table 2b and Table 2c).

Table 2a  
In-depth review

Author	PE	CSE	E	F	Area	Main results
Beaudin	x		x		Natural Sciences	Improvements in the learning of curricular content and in the acquisition of language skills. High student motivation and interest.
Bermejo & Morales	x		x		Mathematics	Influence of the age of the participants, who are in the first levels of primary education, on the limited acquisition of curricular content and language.
Binterová, Petrásková, & Komínková		x	x		Mathematics	Improvements in the learning of curricular content and in the acquisition of language skills. Increase in students' cognitive skills.
Carrión Candel, Pérez Agustín, & Giménez De Ory		x	x		Music	Improvements in the learning of curricular content and in the acquisition of language skills. Influence of ICT - gamification - CLIL on pupil motivation levels.
Fernández-Barrera		x	x		Natural Sciences	CLIL offers new perspectives on content and language learning at all stages of education.
García-Centeno, de Pablos Escobar, Rueda-López, & Calderón Patier	x		x		Science, Mathematics and Technology	Content learning is not affected by the instrumental use of a foreign language. Language competences are improved in bilingual programmes.
Gil-López, Siena-Díaz, & González-Villora	x		x		Physical Education and Science	Improvements in the learning of curricular content and in the acquisition of linguistic competences. CLIL favours an increase in student motivation and participation, and a reduction in the number of hours of self-study.
Lamb & King		x		x	Physical Education	Positive influence on motivation, self-confidence and low levels of language anxiety. Improved learning of curricular content.

E: English language. F: French language. PE: Primary Education. CSE: Compulsory Secondary Education. Source: Elaborated by the authors

Table 2b  
In-depth review

Author	PE	CSE	E	F	Area	Main results
Mancipe & Triviño	x		x		Natural Sciences	Positive development of cognitive skills from integrated learning in science and language.
Moreno de Diezmas & Matthew Hill	x		x		Social Sciences	Results in bilingual social studies are not affected by language. CLIL is more gender- and opportunity-equalising than traditional social studies teaching.
Naddeo		x	x		History of Art	Improvements in the learning of curricular content and in the acquisition of language skills. Increased positive attitudes and motivation of pupils.
Nurdillayeva, Baisalova, & Zhuman		x	x		Chemistry	Increased interest in curricular content and language, and progressive development of knowledge and understanding of the area. Very positive student attitudes. More successful teaching-learning approach than the traditional one.
Ouazizi		x	x		Mathematics	Improved learning of curricular content and acquisition of language skills. Increase in positive attitudes and motivation in the classroom. Pupils obtain better academic results in their area of knowledge.
Pastrana, Llinares, & Pascual		x	x		History	CLIL students work more collaboratively, and are more focused on tasks and in the classroom. Excellent motivation.
Rolletschek		x	x		Biology	Improvements in the learning of curricular content and in the acquisition of language skills. Good student motivation and interest.
Salvador-García, Chiva-Bartoll, & Capella-Peris		x	x		Physical Education	Improvements in the learning of curricular content and in the acquisition of linguistic competences. Students more interested in classroom work. Increased levels of physical activity.

E: English language. F: French language. PE: Primary Education. CSE: Compulsory Secondary Education. Source: Elaborated by the authors

Table 2c  
In-depth review

Author	PE	CSE	E	F	Area	Main results
San Isidro & Lasagabaster		x	x		Social Sciences	Improvements in the learning of curricular content and in the acquisition of language skills. Academic performance is not affected by the instrumental use of a foreign language.
Tagnin & Ni Riordain		x	x		Biology + STEM	Improvements in the learning of curricular content and in the acquisition of language skills. Enhancement of students' cognitive skills.
Warburton		x	x		Technology	CLIL ensures subject and language learning by increasing social inclusion, equality and cooperation. Increased motivation, interest and confidence of learners. Improved learning of curricular content and acquisition of language skills (oral expression).

E: English language. F: French language. PE: Primary Education. CSE: Compulsory Secondary Education. Source: Elaborated by the authors

All the studies address the acquisition of the target language (mainly English) and the curricular content of the subject area, focusing almost entirely on the acquisition of the content. This focus can be explained by considering the content-language competence integration objective of the CLIL approach.

It can be seen that most of the research is carried out in the Secondary Education classroom ( $n = 13$ ), to the detriment of the Primary Education stage ( $n = 6$ ). Similarly, an absence of CLIL studies was identified at the pre-primary stage. During the identification and screening phase, only one article was collected in the field of teacher training at this stage of education.

Finally, several studies have been carried out in the area of natural and social sciences. These areas are very appropriate for the implementation of bilingual programmes, with very positive results. Also noteworthy are the studies which, from the CLIL approach, integrate active methodologies and the use of ICT.

In order to identify statistically significant differences between research designs, year of publication (2017-2021) and country of origin, we applied the  $\chi^2$  test for homogeneity (Table 3 and Table 4). According to the results obtained, it can be concluded that there are no differences between the year of publication variable ( $\chi^2_{(30, n=19)} = 19.977, p = .917$ ) and the geographical origin variable ( $\chi^2_{(45, n=19)} = 46.107, p = .426$ ).

Table 3  
Descriptive frequencies by research design and publication year

Design	Publication year						
	2014	2016	2017	2018	2019	2020	2021
	$f_i(p_i)$	$f_i(p_i)$	$f_i(p_i)$	$f_i(p_i)$	$f_i(p_i)$	$f_i(p_i)$	$f_i(p_i)$
a	1(100)					1(33.3)	
b					1(14.3)		1(20.0)
c		1(100)	1(100)	1(100)	2(28.6)	2(66.7)	3(60.0)
d					1(14.3)		
e					1(14.3)		
f					2(28.6)		1(20.0)

Note. a = Case study, b = Multiple case study, c = Mixed descriptive, d = Longitudinal, e = Mixed longitudinal, f = Quasi-experimental.

Note.  $P_i$  within the variable *publication year*.

Table 4  
Descriptive frequencies according to research design and geographic origin

Design	Origin									
	1	2	3	4	5	6	7	8	9	10
	$f_i(p_i)$									
a	1(100)	1(100)								
b							1(100)	1(100)		
c			6(60.0)	1(100)	1(100)	1(100)				1(100)
d			1(10.0)							
e			1(10.0)							
f			2(20.0)						1(100)	

Note. 1 = Czech Republic, 2 = England, 3 = Spain, 4 = Taiwan, 5 = Italy, 6 = Turkestan, 7 = Columbia, 8 = Germany-Italy, 9 = Germany, 10 = Belgium.

Note. a = Case study, b = Multiple case study, c = Mixed descriptive, d = Longitudinal, e = Mixed longitudinal, f = Quasi-experimental, d = Longitudinal, f = Quasi-experimental.

Note.  $P_i$  within the variable *origin*.

Finally, in order to test the potential association between the variables *language* and *educational level* and, therefore, to identify preferential associations of the English and French languages at certain educational levels (Primary and Compulsory Secondary Education) (Table 5), we applied the  $\chi^2$  test of independence. According to the results obtained ( $\chi^2_{(1, n=19)} = 0.487, p = .485$ ), the existence of a significant association between the two variables cannot be affirmed.

Table 5  
Descriptive frequencies by educational level and language of instruction

Educational level	Language	
	English $f_i(p_i)$	French $f_i(p_i)$
Primary Education	6(33.3)	
Compulsory Secondary Education	12(66.7)	1(100)

Note.  $P_i$  within the variable *Language*.

### Main results derived from the studies

Numerous studies in different areas highlight the increased motivation of students who participate in this methodology. Moreover, the interest of CLIL groups increases both in the acquisition of content and language skills ( $n = 11$ ). Likewise, the majority of the students report the benefits of bilingual programmes in terms of learning ( $n = 14$ ) in the different subject areas.

Two studies explicitly state that the learning of curricular content is not affected when it is developed in a language other than the mother tongue, affirming, in turn, an improvement in the language skills acquired. There is also frequent research indicating that this approach contributes to the development of pupils' cognitive skills, enhancing their creativity and their ability to solve problems in areas such as mathematics and science. The areas of music and physical education also show progress in the learning of curricular content and in the acquisition of language skills, as well as an increase in motivation and interest, especially when the CLIL approach is combined with ICT and gamification.

The conclusions on the advantages of the CLIL approach in increasing student autonomy and confidence, in reducing anxiety in language learning, in increasing participation in the classroom, and in promoting equal opportunities and gender equality are noteworthy. Only one study highlights, however, the existence of limitations in the learning of curricular content and in the acquisition of language skills, depending on the age of the participants.

### DISCUSSION AND CONCLUSIONS

Although CLIL programmes are widespread globally, the number of studies focusing on the impact on the learning of curricular content and language skills in foreign languages is limited (Lagasabaster & Doiz, 2016; Pérez Cañado, 2016a, 2016b). According to the results obtained, it can be affirmed that the CLIL approach is beneficial for students at different educational stages. Although some studies claim the influence of a low language level on the success of the approach (Kahn-Horwitz, 2020), this occurs less frequently when students understand the target language. From this perspective, it would be necessary to explore this issue further, given the proven feasibility of CLIL implementation in education.

The positive effects on motivation levels and learning of curriculum content are directly related to the design of classroom activities and materials, as well as to the correct application of learning strategies and scaffolding (Mahan, 2020; Ball, 2018), i.e. activities that promote cooperation, collaboration, integration of content and foreign language, and the provision of opportunities for participation. The integrated teaching of language and curricular content does indeed foster the emergence of opportunities for the development of learners' cognitive skills and creative thinking.

The results are in line with previous studies in which students show satisfactory levels of interest in learning foreign language content (Schietroma, 2019; De Smet et al., 2018; Jurado & García, 2018; Moreno de Diezmas, 2016), and demonstrate abilities to reproduce and understand it optimally (Moghadam & Fatemipour, 2014).

Finally, these results also point to the need for longitudinal studies to resolve the discrepancies between the different studies (San Isidro & Lasagabaster, 2019), and for more in-depth initial and in-service teacher training. In this regard, authors such as Mehisto, Marsch and Frigols (2008) noted the lack of teacher skills to successfully implement CLIL programmes. This conclusion seems to be consolidated in recent studies (Fernández, 2019; Mancipe & Ramírez, 2019).

According to the results obtained in this systematic review, the reasons for implementing the CLIL approach in second language (L2) or target language learning lie in its operability for the generalized acquisition of communicative skills and abilities, linguistic precision (Lahuerta, 2017) and productive oral skills (Pérez Cañado & Lancaster, 2017). These advances appear to be accompanied by a positive impact of the CLIL approach on socio-affective variables, such as linguistic attitudes and student motivation towards learning a target language, in certain educational stages, mainly in Secondary Education (De Smet et al., 2019). Likewise, they suggest its correlation with the development and acquisition of social competences for transdisciplinary problem solving with integrated curricular contents, a circumstance, until now, timidly identified and analyzed.

Assuming the limitations evidenced in the pedagogical proposals and practices described above, its contributions to the concept of competent learning motivate, however, the explicit consideration of the CLIL approach in the state curricular regulations from the first educational stages.

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## APPENDIX

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