

CLIL in Pre-Primary Education: The Views of In-Service and Pre-Service Teachers

CLIL a educació infantil: Percepcions dels mestres en actiu i en formació inicial

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Abstract

Content and Language Integrated Learning (CLIL) has rapidly gained ground in schools within the latest decades. Consequently, interest in analysing stakeholders' perceptions and needs has increased. This article has a twofold aim: (1) to analyse pre-primary teachers' CLIL knowledge, (2) to identify the expected benefits, challenges, and perceived needs that CLIL implementation in pre-primary may entail for themselves, and for their students. To do so, 129 preprimary teachers (N=76 in-service, N=53 pre-service) responded an online survey. Answers were coded with Atlas.ti, visualisations were created with R. Results showed that most in-service teachers know what CLIL is, while pre-service teachers are rather unfamiliar with it. Teachers have positive expectations regarding the potential CLIL benefits for students and teachers. However, most do not feel ready to implement it in pre-primary, because of the lack of teacher training programmes (on methodology and FL), and the scarcity of resources (e.g., guidelines, materials, stakeholders' support).

Keywords: Content and Language Integrated Learning; Pre-primary education; Teacher perceptions; In-service teachers; Pre-service teachers

Resum

L'Aprenentatge Integrat de Continguts i Llengües Estrangeres (AICLE) ha guanyat terreny ràpidament a les escoles durant les darreres dècades. En consequencia, l'interès en analitzar les percepcions i necessitats dels agents implicats ha augmentat. Aquest article té un doble objectiu: (1) analitzar el coneixement d'AI-CLE dels mestres d'educació infantil, (2) identificar els beneficis, reptes i necessitats que la implementació d'AICLE pot comportar tant per a ells mateixos com per als alumnes. 129 mestres d'educació infantil (N=76 en actiu, N=53 en formació inicial) van respondre un güestionari en línia. Les respostes es van codificar amb Atlas.ti, i es van crear visualitzacions dels resultats amb R. Els resultats van mostrar que la majoria dels mestres en actiu saben què és AICLE, mentre que els mestres en formació inicial no hi estan familiaritzats. Els mestres tenen expectatives positives sobre els potencials beneficis de l'AICLE. No obstant, la majoria no es veuen preparats per implementar-lo a educació infantil per falta de formació (en metodologia i llengua estrangera), i falta de recursos (ex., indicacions, materials, suport).

Paraules clau: Aprenentatge Integrat de Continguts i Llengües Estrangeres; Educació infantil; Percepcions dels mestres; Mestres en actiu; Mestres en formació inicial



Introduction

Ever since the onset of the European Union, there has been a shift in the linguistic needs of European citizens, which has led to the enhancement of policies to promote plurilingualism around European countries (Dafouz & Guerrini, 2009). Considering this and seeing the success of the immersion programmes in Canada (Cenoz, 2015), Foreign Language (FL) teaching approaches that bring to the classrooms a natural and meaningful context (Llinares & Morton, 2010; Lorenzo, et al., 2010) have become more present in schools within the latest decades. That is the case of dual-focused educational approaches such as Content and Language Integrated Learning (CLIL). Consequently, since its emergence, research on CLIL has focused on examining teachers', students', and families' views towards the approach. Nevertheless, most of the studies have analysed stakeholders' perspectives of CLIL programmes implemented in primary, and secondary education levels.

To our knowledge, research analysing stakeholders' perspectives at earlier educational stages, namely pre-primary education, is even scarcer (Cortina-Pérez & Pino Rodríguez, 2021; Du Plessis & Louw, 2008). This is precisely the objective of the present article, which aims to investigate in-service and pre-service pre-primary teachers' views regarding CLIL implementation in pre-primary.

Content and Language Integrated Learning (CLIL)

CLIL is a dual-focused educational approach in which an additional language is used for the teaching and learning of both content and language (Coyle, et al., 2010; Jiménez-Catalán & Ruiz de Zarobe, 2009). CLIL programmes usually entail an increase in the exposure time to the FL, which is rather limited outside of the classroom (San Isidro & Lasagabaster, 2019), and more opportunities for interaction (Lasagabaster & Sierra, 2009) in a context of real and meaningful communication (Llinares & Morton, 2010; Lorenzo, et al., 2010).

Research within the FL acquisition domain focusing on CLIL has so far aimed at analysing CLIL's effects on the learners' FL development, as well as on content acquisition to a lesser extent (e.g., Dalton-Puffer, 2008; Goris, et al., 2019; Lasagabaster, 2008; Lorenzo, et al., 2010; Ruíz de Zarobe, 2011). Nevertheless, there is a need for further studies that go beyond and aim to investigate stakeholders' perceptions to ultimately understand 'what is actually happening in the classroom and how participants in the process feel.' (Pladevall-Ballester, 2015, 45). More specifically, it is essential to analyse the views of the main stakeholders

involved to gain insight into how to best support them and interpret the learning outcomes of such programmes (Bonnet, 2012).

Teachers' Perceptions on CLIL

With the emergence of FL teaching approaches such as CLIL, new opportunities and challenges arise, the main one being the need for teachers who are willing and trained to teach content and language in an integrated way (Infante, et al., 2009; Mehisto, et al., 2008). In a small-scale study conducted with Serbian teachers (Savić, 2010), a large percentage of the participants showed eagerness to teach subject content through a FL, although most identified a need for further methodological training as they were not familiar with what CLIL referred to. Similar findings were reported by McDougald (2015), who found that about 60% of the primary, secondary, and higher education Colombian teachers surveyed knew very little about CLIL.

Such lack of CLIL methodological knowledge has been identified as a limitation not only for the teachers implementing CLIL programmes (Alcazar-Mármol, 2018; Campillo, et al., 2019; Pena & Porto, 2008), but also for the students, since teachers' methodological training on the appropriate techniques and strategies to foster learning directly affects students' learning (Alcazar-Mármol, 2018; Pavón, et al., 2015). Consequently, this should be addressed explicitly in teacher training programmes (Pavón & Rubio, 2010; San Isidro & Lasagabaster, 2019), which should focus on getting the teachers familiarised with the principles of CLIL (Infante, et al., 2009), and allow them to expand their knowledge of the FL, the curricular content, and how to integrate them both in the classroom (Alcazar-Mármol, 2018). Therefore, an essential element for CLIL programme success (Pavón & Ellison, 2013) is teacher training, not only in terms of methodology (San Isidro & Lasagabaster, 2019), but also in terms of practical issues (San Isidro, 2021), such as course planning, interaction techniques, cooperation, evaluation strategies, classroom management (Pavón & Ellison, 2013), and identification of learner strengths, weaknesses, and needs to provide adequate support (Pavón, et al, 2015). In sum, working with innovative approaches such as CLIL poses an interesting new challenge for the teachers (Hunt, 2011; Johnson, 2012; Lova, et al., 2013), since it entails a change in the teaching methodology (Amat et al., 2017), while also allowing for professional development (Hunt, 2011).

When asked about student's attitudes, CLIL teachers have reported an increase in their students' motivation (Borrull, et al., 2008; Campillo, et al., 2019; Infante, et al., 2009; Pavón & Rubio, 2010), as well as higher engagement (Pavón,

et al., 2015), which has been attributed to CLIL's experiential (Fleta, 2016) and active learning context (Borrull, et al., 2008; Campillo, et al., 2019). Within such setting, learners can freely communicate in a relaxed atmosphere (Pavón, et al, 2015), where they feel safe to express themselves (Infante et al., 2009).

Regarding the skills and competences that teachers have reported to be enhanced through CLIL, Méndez's (2014) results indicate that primary and secondary school teachers agree that CLIL enhances students' vocabulary, and development of communicative competence in all languages. San Isidro & Lasagabaster's (2019) results concurred with such conclusions. After monitoring and interviewing six CLIL teachers in a longitudinal study, the authors reported a consensus among the teachers who stated that learners improved their competences in the three vehicular languages.

There is, nonetheless, one main concern among CLIL stakeholders: whether the use of a FL (instead of the students' L1) as the language of instruction can hinder in-depth content learning (Alcazar-Mármol, 2018; San Isidro & Lasagabaster, 2019). Such concern stems from the question of whether learners' low FL levels may make the learning of curricular content in that FL more challenging (Infante, et al., 2009; Massler, 2012; Pavón, 2014; Pavón & Ellison, 2013; Pavón & Rubio, 2010; Pena & Porto, 2008). Previous researchers have also outlined teachers' worries regarding how to find a good balance between focusing on content and language (Infante, et al., 2009), and how to deal with low-achieving learners (Pladevall-Ballester, 2015). Thus, it is important that teachers are aware of students' weaknesses and strengths to provide additional support, and materials (Pavón, et al., 2015), as well as to adapt their teaching to students' individual abilities (Fleta, 2016).

Multiple studies have also focused on the identification of the main challenges and needs that teachers expect to encounter or have actually faced when implementing CLIL. The CLIL teacher challenges reported in previous research thus far can be classified into three main groups: (1) the increased workload, (2) the need for language and content teachers' cooperation, (3) the generalised lack of knowledge of the CLIL approach and low FL level of the teachers. These three categories of challenges are described in further detail in the following paragraphs.

First, teachers have reported that working through CLIL increases their workload (McDougald, 2015), and is more time consuming, which poses a problem due to the lack of preparation time (Lova, et al., 2013). Such additional workload has been attributed to the methodological changes that need to take place

when shifting from formal to CLIL instruction, such as in the evaluation system (Borrull, et al., 2008), the planning of the lessons (Cammarata, 2009; Coonan, 2008), and the creation of materials (Cammarata, 2009; Campillo, et al., 2019; McDougald, 2015; Savic, 2010). When teaching through CLIL, teachers need different scaffolding strategies, as well as visual materials to facilitate students' understanding (Pavón, et al., 2015). However, access to such materials seems to be difficult (Pena & Porto, 2008), and teachers have reported a need for more resources (Lova, et al., 2013).

The second set of challenges stems from the dual nature of CLIL. The integration of content and language requires teacher cooperation and coordination (Du Plessis & Louw, 2008; Massler, 2012; San Isidro & Lasagabaster, 2019; Savic, 2010). A three level teacher coordination between (1) teachers of all languages, (2) content teachers of different subjects, and (3) language and content teachers (Pavón, 2014; Pavón & Ellison, 2013) is essential to guarantee that linguistic and content objectives are integrated in the CLIL curriculum (Pavón & Rubio, 2010). Such coordination is key, above all, during the planning phase (Coonan, 2008) since it can minimise the challenges for the teachers (San Isidro, 2021). Additionally, although teachers' willingness to cooperate is essential for programme success (San Isidro & Lasagabaster, 2019), institutional support is also fundamental. This support can be provided by the institutions, for example, by designating the figure of a CLIL coordinator, or by providing teachers with more preparation time and materials (Borrull, et al., 2008; Campillo, et al., 2019; McDougald, 2015; San Isidro & Lasagabaster, 2019; Savic, 2010).

The last but equally concerning category of challenges is related to teachers' lack of specialised content knowledge and limited FL level (Banegas, 2012). As summarised in Alcázar-Mármol (2018), several studies analysing CLIL teachers' perceptions have outlined that teachers often feel that they have not mastered the specialised content from the curricular area to be taught through CLIL. Thus, FL teachers involved in CLIL may feel insecure, due to their limited command of the subject content (McDougald, 2015). Likewise, CLIL content teachers have highlighted their low FL level as a major setback (Massler, 2012).

Due to the many aspects that need to be carefully considered when developing and implementing CLIL programmes, it is expected that teaching experience plays an important role (Navarro-Pablo & López Gándara, 2019; Navés, 2009). This way, teachers' views and concerns may change over time, with more experience and training (Cabezuelo & Fernández, 2014). As such, it is essential to analyse

the views of teachers with different levels of experience, including pre-service teachers, who are still undergoing their academic training. Previous studies have reported that pre-service teachers seem to be somewhat familiar with what CLIL is (Tachaiyaphum & Sukying, 2017) and how it enhances communication, active, and cooperative learning (Amat, et al., 2017). Nonetheless, pre-service teachers do not feel prepared to start teaching through CLIL (Amat, et al., 2017; Cortina-Pérez & Pino Rodríguez, 2021), mainly because of their perceived low FL level, lack of methodological knowledge (Amat, et al., 2017), and lack of content knowledge (Tachaiyaphum & Sukying, 2017).

Although the three studies mentioned above have started to analyse preservice teachers' views on CLIL, there is still a dearth of research in this domain with such participants. Thus, there is a need for further studies with pre-service teachers to ultimately help orient the training programmes for future CLIL teachers (Tachaiyaphum & Sukying, 2017).

With the previous context in mind, this article aims at examining teachers' level of CLIL knowledge, and analysing the potential benefits and challenges teachers expect CLIL to entail both for pre-primary students and themselves. Additionally, we aim at analysing teachers' readiness to implement CLIL and identify their main perceived teaching and training needs. To do so, in-service and pre-service pre-primary teachers' views were collected through two online surveys, and compared to answer the following research questions (RQ):

RQ1: What is pre-primary teachers' level of knowledge of CLIL?

RQ2: Which benefits do pre-primary teachers expect CLIL will entail for pre-primary students and teachers?

RQ3: Which challenges for students and teachers do pre-primary teachers expect to encounter when implementing CLIL in pre-primary?

RQ4: Do pre-primary teachers feel ready to start implementing CLIL at such an early educational stage?

RQ5: What are pre-primary teachers' main perceived teaching and training needs to implement CLIL?

METHOD

Participants

A total of N=134 pre-primary teachers responded to the survey. Five participants' responses were disregarded because all or some open-ended questions were left blank. Thus, the final sample of participants was of N=129 pre-primary teachers, including N=76 in-service teachers (IST), and N=53 pre-service teachers (PST). ISTs' ages ranged from 23 to 62 years (M=40.96; SD=11.34), and their accumulated teaching experience ranged from 1 to 41 years (M=16.92; SD=11.51). PSTs' ages ranged from 18 to 25 years (M=20.68; SD=2.05), and their accumulated teaching experience (including internships and some part time jobs) ranged from 0 to 6 years (M=0.662; SD=1.13). Further information regarding the participants can be found in Table 1.

Table 1. Description of participants

	N (%)	N (%)	
	In-service teachers (ISTs)	Pre-service teachers (PSTs)	
Total	76 (100%)	53 (100%)	
	Gender		
Female	69 (90%)	52 (98%)	
Male	7 (10%)	1 (2%)	
Engli	sh level (self-assessed)	•	
Native (C2)	0 (0%)	0 (0%)	
Advanced (C1)	9 (12%)	4 (8%)	
Upper-intermediate (B2)	12 (16%)	20 (38%)	
Intermediate (B1)	33 (43%)	21 (40%)	
Low (A1/A2)	21 (28%)	8 (15%)	
None	1 (1%)	0 (0%)	
Year of Pre-Prima	ry Education undergradu	ate degree	
First year	NA	26 (49%)	
Second year	NA	3 (6%)	
Third year	NA	17 (32%)	
Fourth year	NA	7 (13%)	
FL s _l	pecialisation in degree		
With FL specialisation	21 (28%)	16 (30%)	
Without FL specialisation	55 (72%)	27 (51%)	
Not yet, but interested	NA	10 (19%)	
Te	eaching experience ¹		
Working	76 (100%)	9 (17%)	
Internship	NA	27 (51%)	
None	NA	22 (42%)	

	N (%)	N (%)
	In-service teachers (ISTs)	Pre-service teachers (PSTs)
FL teacl	ning experience ¹	
Currently teaching a FL	18 (24%)	3 (9%)
Prior FL teaching experience	23 (30%)	7 (22%)
No FL teaching experience	40 (53%)	23 (72%)
CI	IL training	
With CLIL training	20 (26%)	3 (6%)
Without CLIL training	56 (74%)	50 (94%)
CLIL tea	ching experience	
With CLIL teaching experience	18 (24%)	0 (0%)
Without CLIL teaching experience	58 (76%)	53 (100%)
Would like to teach CLIL in future ²	30 (52%)	40 (77%)
Would not like to teach CLIL ²	28 (48%)	12 (23%)

¹ Because multiple answers per participant are possible, the results within this section may exceed 100%.

To reach ISTs, school principals or pre-primary coordinators in 32 different schools in Catalonia were contacted and asked to share the survey link with their pre-primary teachers. Only teachers from 29 of those 32 schools filled in the questionnaire. Out of these 29 schools, 17 were located in Barcelona city, while the other 12 were located in 12 other cities in Catalonia. Regarding school type, 10 were public (*N*=14 ISTs), 17 were semi-private (*N*=54 ISTs), and 2 were private (*N*=8 ISTs).

As for PSTs, the coordinators of the Pre-Primary Education degree in 8 universities in Catalonia were contacted. These coordinators either sent the questionnaire link to the students enrolled in the degree via email or asked specific teachers to allow students to answer the questionnaire during class time. Out of the 8 universities contacted, students from 5 of them answered the survey. Regarding university type, 3 were public (N=16 PSTs), while the other 2 were private (N=37 PSTs). These universities were located in 5 different cities in Catalonia.

Data Collection Procedure

Data were collected through two online questionnaires using the Sogolytics platform. Both surveys were created by the author after extensive reading and analysis of surveys previously used by other researchers with different target participants (Hunt, 2011; McDougald, 2015; Pena & Porto, 2008; Pérez-Cañado, 2016; San Isidro, 2021; San Isidro & Lasagabaster, 2019; Savic, 2010). Both questionnaires were peer-reviewed by two researchers in the project. In February 2022, the surveys

² Percentages calculated out of the number of participants that have no CLIL teaching experience.

were piloted with 15 in-service and 10 pre-service primary education teachers. After the piloting, two questions were modified: one open-ended question's phrasing was adjusted, and another question that was originally open-ended was transformed into a multiple-choice one. These questions were piloted again with 5 other primary education teachers.

Data collection with pre-primary teachers took place during March and April 2022. The surveys themselves served to inform participants of the research project and data treatment policies¹, as well as to collect their informed consent.

Data Collection Instruments

Two separate questionnaires were created for each of the two groups of participants: in-service teachers (Appendix 1), and pre-service teachers (Appendix 2). The two surveys only differed in questions 3 to 15 which enquired onto participants' academic background and teaching experience through a different angle: in the case of ISTs such questions focused on their current and previous teaching positions, while in the PSTs' survey the focus was on their undergraduate studies and internship experiences.

Participants took an average of 25 minutes (*M*=25.46; *SD*=15.95) to answer the survey, which had four main sections: (1) academic background and teaching experience, (2) general CLIL knowledge, and effects on the learning of languages (FL and L1s) and curricular content, (3) perceptions on the possibility of implementing CLIL with students of any age and FL level, and (4) beliefs on the benefits and challenges that implementing CLIL in pre-primary may entail both for teachers and students, as well as the main perceived teaching and training needs for pre-primary CLIL teachers. For the purpose of the present study, only results from sections 1 and 4 of the survey are considered.

Data Analyses

All data collected through the two surveys were exported and merged into one dataset, which was cleaned before data analysis. For the single- and multiple-answer questions, data were transformed into numeric values, and analysed with R (v.4.2.0) to develop the participants' profiles.

¹ Ethics approval for the current research project was granted by the Research Ethics Committee at Universitat Internacional de Catalunya.

Participants' answers elicited through open-ended questions were analysed qualitatively with Atlas.ti (v.22) following a combination of the quantitative content analysis process proposed by Schreier (2012) and Saldaña (2021), and the 6-phase thematic analysis process by Braun & Clarke (2006) and later summarised by Neuendorf (2019). As such, all answers to open-ended questions were first imported into Atlas.ti and read entirely to identify the potential interest topics while creating a first version of the codebook. The codebook was refined by the main researcher and piloted: 20% of the data were coded by two external raters. Their coding was compared and the cases that were interpreted differently were discussed. The codebook was refined again before the second round of pilot coding. Next, Krippendorff's c-Alpha-binary was calculated as an inter-rater reliability measure using the Atlas.ti function for intercoder agreement (α =0.967). Finally, the main rater finished coding the data in its entirety.

The large number of codes (*N*=137) resulting from the quantitative analysis of the participants' open-ended answers precluded any inferential analysis. Thus, we employed descriptive visualisations to show between-group and between-code differences. The data represented in the visualisations have been normalised into percentages from code counts. Percentages were used instead of absolute frequencies because of the different number of participants in each group (ISTs and PSTs). Descriptive visualisations were created in R (v.4.2.0) using *BaseR*, and the *ggplot* package.

RESULTS

CLIL Knowledge

RQ1 analysed participants' CLIL knowledge. To do so, teachers were asked to write a definition of CLIL, or give an example of a CLIL learning context if they were not familiar enough with it to provide a definition. If they still were unable to give an example, they were asked to write 'I don't know'.

The analysis of the teachers' answers showed that ISTs are more familiar with what CLIL is, than PSTs. That is, only 27 out of the 76 ISTs (36%) answered 'I don't know', while the number of PSTs that were not able to provide a definition or example was 35 out of the 53 (66%). Out of the 35 PSTs that did not know what CLIL was, 63% were 1st year students of the Pre-Primary degree.

Additionally, 5 ISTs (7%) and 4 PSTs (8%) did not provide a definition, but gave examples², such as 'CLIL is, for example, when a geometry class is done in English, so the students work on the maths curricular content and at the same time work on the foreign language content' (participant 09, IST), or 'I think that CLIL consists on the learning of a language within a context, that is, not only in the regular English classes, but also in other subjects, such as Psychomotricity, Arts and crafts or Science' (participant 44, IST).

44 ISTs (58%) and 14 PSTs (26%) provided a somewhat accurate definition of CLIL. There was some variation within the definitions that participants wrote. A third of the definitions from both groups were rather simple: 'Working on curricular content through another language' (participant 42, IST), 'Doing a subject in English' (participant 64, IST), or 'Using English to teach and learn a subject' (participant 86, PST). The remaining two thirds of the definitions were more complete: 'Teaching and learning curricular content of a subject, unit, or topic, being both the content and the language the objectives. This way students learn content and receive more input in English, which allows them to improve their English level' (participant 34, IST). In addition, 5 teachers (4 ISTs, 1 PST) also mentioned the importance of CLIL context and communication, for instance 'CLIL is based on the learning of content in any foreign language, and this language being used as a transversal tool so that children can learn in a contextualised environment' (participant 76, IST), and 'CLIL integrates English and curricular content from other subjects through a communicative approach' (participant 85, PST).

Perceptions on CLIL Implementation in Pre-Primary Education

RQ2 enquired on the potential CLIL benefits both for pre-primary students and teachers, while RQ3 focused on the challenges CLIL may entail. As such, participants were asked open-ended questions. The results presented in the following paragraphs illustrate the themes that were identified after coding the participants' responses. The figures display the percentage of teachers in each of the two groups that mentioned each theme.

As presented in Figure 1, PSTs showed more positive views than ISTs regarding CLIL effects on pre-primary students, since a higher percentage of the former mentioned that CLIL enhances the development of many linguistic skills in pre-primary learners (e.g., communication and interaction [91% PSTs, 55% ISTs],

² The examples and definitions presented in this section were given by the participants in their L1s, that is Catalan or Spanish, and have been translated into English for the purpose of the current study.

general FL level [79% PSTs, 41% ISTs], oral comprehension [53% PSTs, 22% ISTs], vocabulary [47% PST, 38% ISTs], and phonetics [21% PSTs, 7% ISTs]), as well as other personal competences (e.g., self-confidence [51% PSTs, 26% ISTs], motivation [30% PSTs, 25% ISTs], and autonomy [13% PSTs, 4% ISTs]). Results also showed that more in-service teachers reported that CLIL can promote spontaneity (7% ISTs, 0% PSTs), as well as normalisation of FL use (16% ISTs, 4% PSTs). A small percentage of teachers in both groups also mentioned explicitly that such benefits come from the learning context that CLIL provides (e.g., natural learning [27% ISTs, 28% PSTs], contextualised learning [30% ISTs, 25% PSTs], and increased exposure to the FL [16% ISTs, 19% PSTs]). Additionally, Figure 1 shows other expected CLIL benefits for pre-primary students that were mentioned by a smaller percentage of teachers.

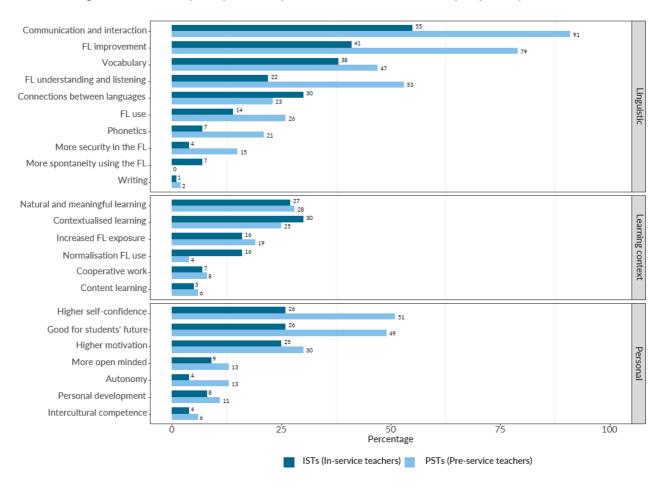


Figure 1. Teachers' perceptions on potential benefits of CLIL for pre-primary students

Compared to the wide amount of CLIL benefits for students reported in Figure 1, the surveyed teachers identified a smaller number of benefits for themselves, as illustrated in Figure 2. The views of both groups in this case were quite

aligned, but there was a significantly higher percentage of PSTs that mentioned FL improvement (47% PSTs, 25% ISTs), innovative teaching (60% PSTs, 28% ISTs), training (28% PSTs, 14% ISTs), and teacher cooperation (11% PSTs, 3% ISTs). On the contrary, more ISTs than PSTs stated that CLIL would increase their motivation (15% ISTs, 6% PSTs) and allow them to develop professionally (11% ISTs, 4% PSTs). Both ISTs' and PSTs' views were similar regarding the other potential benefits for CLIL teachers, which were mentioned by less than 10% of the participants (see Figure 2).

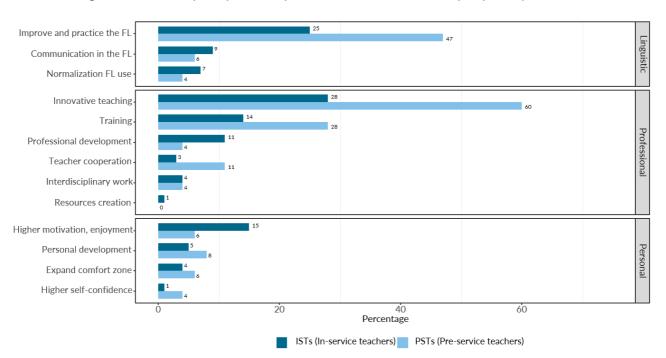


Figure 2. Teachers' perceptions on potential benefits of CLIL for pre-primary teachers

Figure 3 presents the challenges that teachers expect CLIL to entail for preprimary education students. The learning and the understanding of content through the FL outstands as the main one mentioned by both groups of teachers (32% ISTs, 34% PSTs). Nonetheless, some differences were found between both groups regarding the other main challenges mentioned: while understanding the FL was the challenge that ISTs mentioned the most (48% ISTs, 25% PSTs), in the case of PSTs it was the difficult adaptation of students to the CLIL approach (42% PSTs, 11% ISTs), and the confusion between languages, namely students' L1s and FL (45% PSTs, 14% ISTs). Additionally, PSTs seem to be more concerned than ISTs about CLIL having detrimental effects on the students' general linguistic development, by hindering L1 development (17% PSTs, 9% ISTs) and creating a communication barrier due to the teachers' use of the FL (16% PSTs, 0% ISTs)

and the students' low FL level (17% PSTs, 8% ISTs). It is also worth highlighting that ISTs mentioned that CLIL can cause students to lose attention quickly (9% ISTs, 0% PSTs), and that this approach can also entail an additional challenge for students with learning difficulties or special needs (17% ISTs, 8% PSTs). Other minor challenges (e.g., more effort, feeling lost, frustration, insecurity, and lack of motivation) were mentioned almost equally often in both groups of teachers, as displayed in Figure 3.

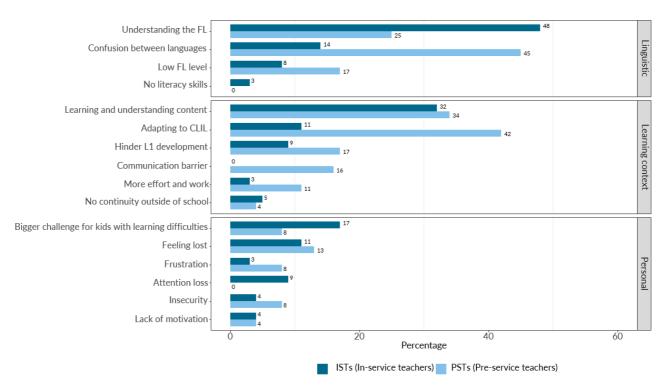


Figure 3. Teachers' perceptions on potential challenges of CLIL for pre-primary students

Figure 4 illustrates the potential challenges that pre-primary CLIL teachers may encounter. The teachers' low FL level stands out as the main challenge in both groups, although fewer PSTs (37%) than ISTs (57%) mentioned it. Additionally, a smaller percentage of teachers in both groups coincided in some other difficulties they may have to face at a linguistic level (e.g., communication [6% ISTs, 9% PSTs], and content transmission problems [3% ISTs, 2% PSTs]), at a professional level (e.g., preparation [14% ISTs, 13% PSTs], creation of materials [1% ISTs, 4% PSTs], time consuming [5% ISTs, 2% PSTs]), and at a personal level (e.g., feeling insecure [12% ISTs, 4% PSTs]). It is also worth noting that ISTs (although less than 15% of them) mentioned a wider amount of challenges that were not found in PSTs' answers (e.g., codeswitching [4% ISTs], programming [11% ISTs],

classroom management [8 % ISTs], changes in the evaluation system [4% ISTs], lack of motivation [5% ISTs], and frustration [2% ISTs]).

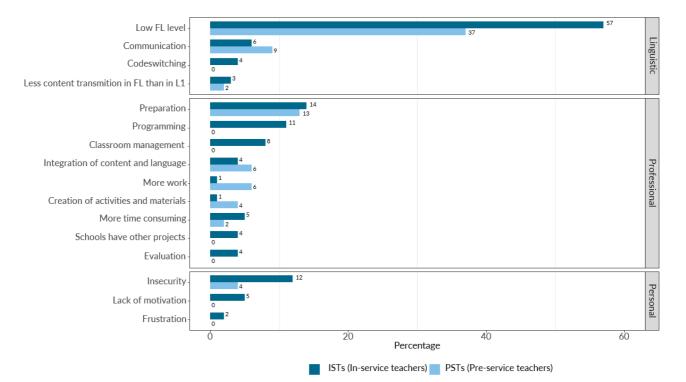


Figure 4. Teachers' perceptions on potential challenges of CLIL for pre-primary teachers

Teachers' Readiness to Implement CLIL and Analysis of Perceived Needs

Finally, RQ4 and RQ5 respectively examined the teachers' readiness to implement CLIL in pre-primary, and identified their perceived CLIL teaching and training needs. When asked whether they were ready to start implementing CLIL in pre-primary, 54% of ISTs and 70% of PSTs said they were not ready. Out of these, 36% of ISTs and 40% of PSTs mentioned that, although they did not feel ready, they would support other teachers in the school who were willing to try. Only 46% of ISTs and 30% of PSTs said they felt ready to implement CLIL in pre-primary.

Figure 5 shows the aspects that teachers mentioned would help them feel more confident if they had to implement CLIL in pre-primary, namely their perceived teaching and training needs. Overall, teachers' main perceived needs are related to specific training (methodological [64% ISTs, 83% PSTs], linguistic [67% ISTs, 60% PSTs], and curricular content [20% ISTs, 53% PSTs]), CLIL materials (e.g., accessing [71% ISTs, 81% PSTs], guidelines [50% ISTs, 81% PSTs], resources [55% ISTs, 75% PSTs]), and stakeholders' support (e.g., between-teacher

support [42% ISTs, 64% PSTs], information from other schools [53% ISTs, 62% PSTs], and families' support [22% ISTs, 64% PSTs]). In most cases (except in three: FL training, more preparation time, and visual materials), the percentage of PSTs mentioning each need was greater than in the ISTs, as detailed above and illustrated in Figure 5.

Specific methodological training - Access to already prepared CLIL materials - Guidelines on adapting materials and didactic units - FL training - More resources available in the school - Information about CLIL programmes in other schools - Support from other teachers in the school - Results of CLIL programmes in other schools - Support from the families - Curricular content training - Methodological shift in schools - Institutional support - Support from the families - Curricular content training - Methodological shift in schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Support from the families - Curricular content training - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information about CLIL programmes in other schools - Institutional support - Information - I

Figure 5. Teachers' perceived needs to start implementing CLIL in pre-primary

DISCUSSION

More preparation time

Visual materials to suport the teaching/learning

The present study aimed at analysing pre-primary teachers' perceptions regarding CLIL implementation with very young FL learners. To our knowledge, very few studies have examined any stakeholders' perspectives regarding CLIL in pre-primary, and research considering both in-service and pre-service teachers is even scarcer.

25

Percentage

ISTs (In-service teachers) PSTs (Pre-service teachers)

100

To answer RQ1, participants' knowledge of the CLIL approach was analysed, and our results aligned with previous studies conducted with teachers of higher education levels (e.g., McDougald, 2015; Savić, 2010). Such studies reported that a large percentage of the teachers are not familiar with the CLIL

approach, which can be problematic when trying to implement successful CLIL programmes (Pavón & Ellison, 2013). Similar findings were reported in the present study, in which 60% of ISTs and only 30% of PSTs were able to provide a definition or example of CLIL. Such results also indicate that ISTs are more familiar with what CLIL is than PSTs. This may be due to (1) ISTs' greater teaching experience and continuous training, and (2) about half of our PSTs being first year undergraduate students enrolled in programmes that did not include courses related to FL teaching didactics yet. However, it is worth highlighting that, within the PSTs, there was an increase in the number of participants that gave a definition as they were further along in their undergraduate studies. This has a major pre-primary teacher training implication: schools are bringing down the age of onset of FL teaching and implementing integrated approaches such as CLIL at earlier grades, but teacher training programmes are not catching up. In the best cases, FL teaching approaches such as CLIL are presented to PSTs only in the last years of their undergraduate degree, and in a limited number of hours of training. As such, teachers are not receiving enough methodological training to confidently implement CLIL with young learners, which is something that should be addressed explicitly in teacher training programmes (Infante et al., 2009; Pavón & Rubio, 2010; San Isidro & Lasagabaster, 2019).

RQ2 and RQ3 focused on identifying pre-primary teachers' perceptions of CLIL's potential benefits and challenges both for pre-primary students and teachers. Although CLIL is still not widely implemented in pre-primary, some forms of soft-CLIL are gaining ground. In soft-CLIL, FL teachers do cross-curricular work and bring to the FL classroom curricular content that is usually taught in the main schooling language, as a way to contextualize the FL learning, through meaningful and communicative activities (Dale & Tanner, 2012; García Esteban, 2015; Ikeda, et al., 2021). Soft-CLIL commonly takes the shape of small projects embedded within the EFL sessions, or language showers. Due to its increased implementation, it is essential to examine teachers' perceptions, as one of the main stakeholders involved.

Overall, our study found that not only a wider amount of potential benefits than challenges for both groups of stakeholders were identified, but also that the percentage of teachers mentioning benefits was larger than when mentioning challenges. Thus, despite most teachers' unfamiliarity or inexperience with CLIL, when they are briefly introduced to the approach, their expectations are positive, and the potential benefits outweigh the challenges.

More specifically, to answer RQ2, concerning CLIL benefits, our analysis found that PSTs appear to be more positive than ISTs, with a larger percentage of the former mentioning potential linguistic, and personal benefits for CLIL learners. However, in both groups, the benefits that were mentioned the most were the same, that is, FL level and use, communication, vocabulary, self-confidence, and motivation. Similar findings had been reported in previous studies conducted by Alcázar-Marmol (2018), and San Isidro & Lasagabaster (2019), in which teachers identified the same linguistic skills as the ones enhanced by CLIL the most.

As for benefits for CLIL teachers, both groups (with a larger percentage of PSTs) highlighted the chance that CLIL would offer them to improve their FL, to teach through an innovative approach, to receive training, and to develop professionally. The current research is not the first one to report such results. In a study conducted by Hunt (2011), the author already concluded that teachers saw CLIL as a chance to develop professionally despite it being a new additional challenge.

RQ3 focused on identifying the expected CLIL challenges for both groups of stakeholders. In line with results from previous studies, our findings showed that teachers are worried about the students' low FL competence being a major setback (Infante et al., 2009; Johnson, 2012). More specifically, teachers expect that preprimary students' low FL level may, on the one hand, hinder content learning and understanding, and, on the other hand, constitute a communication barrier and make learning even harder for students with other pre-existing learning difficulties. Such concerns seem to be accentuated even more in the present study's findings, possibly due to pre-primary learners' very young age and very low FL levels.

The second part of RQ3 aimed at identifying CLIL teachers' expected challenges. In this domain, a significant number of studies have classified the main challenges for CLIL teachers of higher educational stages into three main categories: (1) the increased workload due to the planning of lessons, creation of materials, and adaptation of evaluation systems, amongst other methodological changes (e.g., Campillo, et al, 2019; Pavón, 2014), (2) the need for language and content teachers to work in cooperation (Pavón, 2014; Pavón & Ellison, 2013) and receive institutional support (e.g., Borrull, et al., 2008; San Isidro & Lasagabaster, 2019; Savić, 2010), and (3) the generalised lack of knowledge of the CLIL approach (Alcazar-Mármol, 2018; Banegas, 2012), and low FL level of the teachers (Massler, 2012). The results reported in the present study regarding CLIL challenges for preprimary teachers are in line with the numerous abovementioned studies. As such, the main challenge that most of the surveyed teachers mentioned was the

generalised low FL level of teachers, which is an unresolved issue in Catalonia, and Spain. In addition, teachers also mentioned a rather long list of challenges related to the additional workload that CLIL implementation and planning entails, such as programming, material creation, and evaluation adaptation among others.

RQ4 examined teachers' readiness to implement CLIL. The majority of the surveyed teachers indicated that they did not feel ready, with the percentage of PSTs being larger than of ISTs. Such results were expected, considering that previous studies have reported hesitation and insecurity to start implementing CLIL both in ISTs (Alcázar-Marmol, 2018; Campillo, et al., 2019; Pavón, et al., 2015; Pena & Porto, 2008), and in PSTs (Amat, et al., 2017; Cortina-Pérez & Pino Rodríguez, 2021).

When examining teachers' perceived teaching and training needs in RQ5, our results were in line with previous studies in the field. A wide percentage of our participants reported needing (1) CLIL materials, guidelines on how to adapt them, and more resources (e.g., Cammarata, 2019; Campillo, et al., 2019), (2) opportunities for teacher collaboration (e.g., Du Plessis & Louw, 1008; Massler, 2012; San Isidro & Lasagabaster, 2019), and support from other teachers in the school, the institution and the families, and (3) more training, both in the FL (e.g., Massler, 2012) and the CLIL approach itself (Alcázar-Marmol, 2018; Campillo, et al., 2019; Pena & Porto, 2008). In all cases, although there was a large percentage of ISTs who mentioned such needs, the percentage of PSTs was even greater. Such findings were expected due to the latter's lack of teaching experience and unfinished training.

Finally, it is important to highlight that our participants also showed an interest in knowing about CLIL programmes implemented in other schools, as well as their outcomes, which is something that has not been considered in previous studies. This brings along an important aspect to consider: teachers need to feel part of a community to share experiences, and find encouragement to try out new teaching approaches.

CONCLUSIONS

The present study has aimed at examining the level of knowledge that pre-service and in-service pre-primary teachers have of the CLIL approach, as well as to identify the expected benefits, challenges, and perceived needs of its implementation at such an early educational stage. Overall, pre-primary teachers seem to be positive about the potential effects of CLIL, but also wary of its challenges, and have

identified a long list needs. Such findings provide significant takeaways for school administrators and teacher trainers to provide better support and resources. By taking into consideration the challenges and needs identified, schools may be able to make the transition into CLIL teaching at such early stages smoother, by providing the teachers with more resources and materials, as well as spaces and time for them to feel part of a community where they can work collaboratively and share experiences. Additionally, teacher training programmes (PSTs' university-level courses, and ISTs' training sessions) should constantly be updated to keep up with the new FL teaching approaches to provide a more robust methodological training.

Although the present study has started to fill the research gap regarding preprimary CLIL implementation and the respective teachers' perceptions, there is still a need for further research focusing on such early education stages. This study has provided some relevant insights, but it is not exempt of limitations: the use of questionnaires only, and the lack of inferential statistical analysis may have limited the data collection procedure and data analysis respectively. As such, further studies may want to use focus groups and interviews with a subset of the participants to gain a deeper understanding of teachers' answers in the questionnaire. Alternatively, the analysis of the data could gain strength by following a mixed methods approach in which inferential quantitative analysis were conducted with a subset of the main themes of interest that have emerged from the qualitative analysis.

Despite these limitations, the present study has contributed to a field of research that is still in its infancy, namely CLIL in pre-primary education. It has provided relevant findings that, together with results from further research studies, can eventually help guide school principals and teacher trainers to provide tailored support to future and current CLIL teachers.

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DISCLOSURE STATEMENT

The authors report there are no competing interests to declare.

APPENDIX 1. IN-SERVICE TEACHERS SURVEY

The original survey was administered in Catalan. However, for the purpose of the present study, it has been translated into English.

<u>Teaching English in Pre-Primary Education (In-service Teachers Survey)</u>

What is this research study about?

We are conducting a research project at Universitat Internacional de Catalunya focusing on the implementation of the Content and Language Integrated Learning (CLIL) approach in pre-primary education. The implementation of such an approach has gained ground in many schools, mostly in primary and secondary education levels. However, we aim to study its possible implementation in pre-primary education, a level in which its presence is still very scarce.

With this goal in mind, we have developed the present questionnaire, to learn about the perceptions that pre-primary teachers have about the possibility of implementing CLIL at this stage. We believe it is key to consider the opinions that the pre-primary schoolteachers have in regard to this approach, including its possible benefits for the students and teachers, but also the difficulties and challenges that its implementation in pre-primary may entail.

The questionnaire is organised around several sections to collect information about:

- (1) Academic background, teaching experience, CLIL knowledge, and experience.
- (2) Perceptions about the effects and benefits that CLIL may have on the students and teachers that are involved.
- (3) Opinions regarding potential difficulties and challenges of CLIL implementation.
- (4) Perceptions regarding the implementation of CLIL at the pre-primary stage specifically.

Confidentiality statement and consent form

All the information that you provide in this questionnaire will be anonymised and it will remain confidential. We are only asking for some personal data so that we are able to contact you in case we need further information about a specific answer. Afterwards this information will be anonymised and no data about the participants nor the schools will be disclosed. The results obtained from your participation may be made available to other researchers of the team in the future for research purposes not mentioned in the present consent form. If that were the case, the data would not include any identifying information that may associate it with you or your participation in the study.

If you accept to participate, this questionnaire will serve to register your consent. Your participation is voluntary, and it can be withdrawn at any time if you change your mind.

If you have any questions regarding the research project, please contact [researcher's name]: [researcher's email]

Thank you for your participation.

- 1. Do you agree to participate in this research project?
 - o Yes, I accept to participate. (Continue in Page 2)
 - o No, I do not accept to participate. (Go straight to Thank you page)

Page 2

Part 1. General data

This first part is composed of two main sections that will allow us to better understand your academic background, teaching experience, and knowledge about CLIL:

- The first part focuses on general aspects of your academic background and experience as a pre-primary education teacher.
- The second one aims to gather your general knowledge about CLIL.

General information

The information you give here will be anonymised and never made public. We are only asking it to understand your profile better and to be able to contact you in case we need more information about any of your answers in the questionnaire.

about a	any of your answers in the questionnaire.
2(a). N	fame and surname:
2(b). E	mail address:
2(c). G	ender:
2 (d). D	Pate of birth:
Acader	nic background
3. Wha	nt is your academic background as a teacher?
Үои са	n tick or list more than one item if you have several qualifications, or a double degree.
	Pre-primary education degree.
	Primary education degree.
	Other (please specify):
4. Did	you specialise in foreign language teaching?
0	Yes.
0	No.
5. How	would you rate your English level?
0	I don't speak English.
0	Low level.
0	Intermediate level.
0	High level.
0	Advanced level.
0	English is my mother tongue.
6. Do y	you have any English certification?
0	Yes. (Continue in question 7)
0	No. (Continue in question 8)
7. Whi	ch English certification do you have?
0	A2 (KET or equivalent).
0	B1 (PET or equivalent).
0	B2 (First or equivalent).
0	C1 (Advanced or equivalent).

0	C2 (Proficiency or equivalent).					
0	Other (please specify):					
Teachi	ng experience					
8. Wh	3. What is the name of the school where you are currently working?					
9. Hov	v long (in years and months) have you been working in this school?					
10. W	nich grades are you currently teaching?					
	P3 (3-year-olds).					
	P4 (4-year-olds).					
	P5 (5-year-olds).					
	1st and 2nd grade in primary (6- and 7-year-olds).					
	3 rd and 4 th grade in primary (8- and 9-year-olds).					
	5 th and 6 th grade in primary (10- and 11-year-olds).					
11. W	nich grades have you taught previously?					
	P3 (3-year-olds).					
	P4 (4-year-olds).					
	P5 (5-year-olds).					
	1st and 2nd grade in primary (6- and 7-year-olds).					
	3 rd and 4 th grade in primary (8- and 9-year-olds).					
	5 th and 6 th grade in primary (10- and 11-year-olds).					
12. Ha	ve you worked in other schools before?					
0	Yes. (Continue in question 13)					
0	No. (Continue in question 15)					
	st the names of the schools you have previously worked at and indicate how long (in years onths) you have been working in each of them.					
	ose schools where you worked at for a long time period or the ones that you think have had uence on the way you teach now.					
14. In	total, what is your accumulated teaching experience (in years and months)?					
	s, how many years and months in total have you worked or done an internship for as a teacher our life?					
15. Do	you have experience as a foreign language teacher?					
	Yes, I am currently a foreign language teacher.					
	Yes, I have taught foreign language classes before.					
	No.					

CLIL training and teaching experience	
16 Hanna and a series de CIII anaimine)	
16. Have you ever received CLIL training?	
• Yes. (Continue in question 17)	
o No. (Continue in question 19)	
17. Which training have you received?	
Indicate the name or topic of the course, the organising entity, and its dura	ation (days, hours).
18. Which contents did you work on?	
List them briefly.	
19. Do you have experience teaching through CLIL?	
○ Yes. (Continue in question 20, skip questions 25 & 26)	
o No. (Continue in question 25)	
o 110. (comme in queetton 25)	_
· · · · · · · · · · · · · · · · · · ·	?
20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL	
20. Which area or project have you taught through CLIL? In which grades	
20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL?	
20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL?	
20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL? 23. How would you rate your experience teaching through CLIL?	
20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL? 23. How would you rate your experience teaching through CLIL? • Very positive.	
 20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL? 23. How would you rate your experience teaching through CLIL? Very positive. Positive. 	
 20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL? 23. How would you rate your experience teaching through CLIL? Very positive. Positive. Neutral. 	
 20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL? 23. How would you rate your experience teaching through CLIL? Very positive. Positive. Neutral. Negative. Very negative. 	
 20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL? 23. How would you rate your experience teaching through CLIL? Very positive. Positive. Neutral. Negative. Very negative. 24. Why? 	
20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL? 23. How would you rate your experience teaching through CLIL? 24. Very positive. 25. Neutral. 26. Negative. 26. Very negative. 26. Why?	
20. Which area or project have you taught through CLIL? In which grades 21. How long (in years and months) have you been teaching through CLIL 22. In which school have you taught through CLIL? 23. How would you rate your experience teaching through CLIL? 24. Very positive. 25. Would you like to implement CLIL in the future?	

can give an example.

Strongly

Disagree

Page 3

Part 2. CLIL effects on students of any age

This second part of the questionnaire aims to collect your perceptions about the possible effects and benefits that CLIL may have in general on students of any age.

First, let's review what CLIL entails:

The term CLIL refers to any 'dual-focused educational approach in which an additional language is used for the learning and teaching of content and language with the objective of promoting both content and language mastery' (Marsch et al., 2010, p.11). CLIL brings to the classroom a context of real and meaningful communication, that simulates immersion settings at a smaller scale.

28. Considering your own CLIL knowledge and the definition you have just read, indicate your degree of agreement or disagreement with the following statements about the effects of CLIL:

Agree

Strongly

		agree	Agree	Disagree	disagree
	CLIL promotes both the learn-content and languages.				
	CLIL only promotes the learn-content.				
	CLIL only promotes the devel- nt of linguistic skills.				
28(d). CLIL only promotes the acquisition of the foreign language.					
	CLIL promotes the development mother tongue as well.				
29. Ou	t of the linguistic skills listed below	, tick the one	s that you thin	nk are enhanced	through CLIL:
	Reading comprehension.				
	Listening comprehension.				
	Written expression.				
	Oral expression.				
	Fluency.				
	Phonetics/pronunciation.				
	Morphology.				
	Syntax.				
	Pragmatics.				
	Vocabulary.				
	None of the above.				
	Other (please specify):		=		
	t of the personal and interpersona through CLIL:	al skills listed	below, tick t	he ones that you	think are en-
	Communication and interaction.				
	Motivation in content learning.				

26					Segura, M.
П	Mativation in language learning				
П	Motivation in language learning Self-confidence.	•			
_		ha languaga			
	Greater risk-taking when using t	ne ianguage.			
	Creativity. Intercultural competence.				
	1				
	Metalinguistic awareness.				
	None of the above.				
□ D	Other (please specify):		_		
Page 4		ntion of CLII	at any and do		
	. Perceptions about the implementa				r . 1 .
be able	hird part will allow us to gather yo e to identify the possible difficulties at any educational stage or grade.				
31. Do	o you think it is possible to implem	ent CLIL at	any age and e	ducational stage	?
0	Yes.				
0	No.				
32. W	hy?				
33. Do	o you think it is possible to impleme	ent CLIL witl	n students of a	ny foreign langu	age proficiency
0	Yes.				
0	No.				
34. W					
JT. W.	ny.				
	dicate your degree of agreement or nentation in any grade:	r disagreeme	nt with the fo	llowing statemen	nts about CLIL
Imple	ementing CLIL requires	Strongly agree	Agree	Disagree	Strongly disagree
35(a)	. a lot of preparation time.				
35(b)). changes in the curriculum.				
35(c) tem.	. changes in the evaluation sys-				
35(d)). creating new materials.				
	cooperation between content, gn language and L1 teachers.				
35(f).	. institutional support.				
35(g)	. the support of the families.				
). the students to have a very high vledge of the content.				

35(i). the teachers to have very high knowledge of the content.	
35(j). a content mastery higher than what the language teachers may have.	
35(k). the students to have a very high level of the foreign language.	
35(l). the teachers to have a very high level of the language.	
35(m). a foreign language level higher than what the content teachers may have.	
35(n). further specific methodological training.	
36. If you want to add any comments or make any remarks related to the statements in the prequestion, you can type them here:	evious
<u>Page 5</u>	
Part 4. Perceptions about the implementation of CLIL in pre-primary education	
This is the last part of the questionnaire, and it focuses on your perceptions about the implention of CLIL in pre-primary education specifically.	nenta-
37. Which linguistic benefits do you think CLIL may have on pre-primary education children	ι?
38. Which personal and social benefits do you think CLIL may have on pre-primary educehildren?	cation
39. Which benefits do you think CLIL may have on pre-primary education teachers?	
40. Which difficulties and challenges do you think CLIL may entail for pre-primary education dren?	n chil-
41. Which difficulties and challenges do you think CLIL may entail for pre-primary education ters?	teach-
42. Would you feel prepared to start implementing CLIL right now in any pre-primary grade O Yes, I think I am ready to implement CLIL in pre-primary education.	:}

Yes, but only in P5 (5-year-olds).

Yes, but only in P4 (4-year-olds) and P5 (5-year-olds).

)	No, I don't think I am ready.
)	No, but I would support other teachers in the school that want to try it.
)	Other (please specify):
Vh	y?
	ich of the following aspects would help you feel more prepared to implement CLIL in preveducation?
	Specific methodological training (content and language integration).
	Foreign language training.
	Curricular content training.
	Guidelines on how to adapt materials and didactic units.
	Access to already prepared CLIL materials and didactic units.
	More resources available in the school.
	Institutional support.
	Support from other teachers in the school.
	Support from the families.
	Information about CLIL programmes implemented in other schools.
	Results of CLIL programmes implemented in other schools.
	Other (please specify):
	Wh Wh ary

Thank you!

This is the end of the questionnaire. We thank you for your time and participation in our research project. We are convinced that your responses will be very useful for our investigation.

If you have any questions or want to know more about our project, you can contact [researcher's name]: [researcher's email]

APPENDIX 2. PRE-SERVICE TEACHERS SURVEY

The original survey was administered in Catalan. However, for the purpose of the present study, it has been translated into English.

The pre-service teachers' questionnaire only differed with the in-service survey in the questions enquiring on participants' academic background and teaching experience, that is questions 3 to 15. The two surveys were identical in terms of the introduction, consent form, and from question 16 onwards. Thus, Appendix 2 includes only the questions that were different. Refer to Appendix 1 for the common questions in both surveys.

ioi tiic	common questions in both surveys.
<u>Teachi</u>	ng English in Pre-Primary Education (Pre-service Teachers Survey)
3. In w	which university are you studying your pre-primary education degree?
4. Whi	ch grade are you currently enrolled in?
	First.
	Second.
	Third.
	Fourth.
	Other (please specify):
5. Are	you enrolled in the foreign language specialisation?
0	Yes.
0	No.
0	I haven't chosen yet, but I would like to specialise in foreign language.
6. Do	you have any other training related to education?
	ample, the primary education degree, any professional training degrees or any other course to education.
0	Yes. (Continue in question 7)
0	No. (Continue in question 8)
7. Whi	ch one?
Indica	te the name of the course, its duration, and the institution.
8. Hov	v would you rate your English level?
0	I don't speak English.
0	Low level.
0	Intermediate level.
0	High level.
0	Advanced level.
0	English is my mother tongue.
9. Do	you have any English certification?
0	Yes. (Continue in question 10)
0	No. (Continue in question 11)

10. W	hich English certification do you have?
0	A2 (KET or equivalent).
0	B1 (PET or equivalent).
0	B2 (First or equivalent).
0	C1 (Advanced or equivalent).
0	C2 (Proficiency or equivalent).
0	Other (please specify):
Teach	ing and internship experience
11. H	ave you ever worked or done an internship as a pre-primary education teacher?
	Yes, I have worked. (Continue in question 12)
	Yes, I have done an internship. (Continue in question 12)
	I have not worked nor done any internships yet. (Continue in question 16)
12. W	That is the name of the school/schools where you have worked and/or done an internship?
13. In	total, what is your accumulated teaching experience (in years and months)?
	s, how many years and months in total have you worked or done an internship for as a teacher our life?
14. W	hich grades have you taught before or are you currently teaching?
	P3 (3-year-olds).
	P4 (4-year-olds).
	P5 (5-year-olds).
	1st and 2nd grade in primary (6- and 7-year-olds).
	3 rd and 4 th grade in primary (8- and 9-year-olds).
	5 th and 6 th grade in primary (10- and 11-year-olds).
15. D	o you have experience as a foreign language teacher?
	Yes, I am currently a foreign language teacher.
	Yes, I have taught foreign language classes before.
	No.

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