



Perceived Constraints of Contextual Factors on CLIL Teachers' Effectiveness: Effect of a Training Course^{1 2}

Restricciones percibidas de los factores contextuales en la eficacia de los profesores AICLE: efecto de un curso de formación

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Restrições percebidas dos fatores contextuais sobre a eficácia dos professores de CLIL: efeito de um curso de treinamento

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ABSTRACT. Even though the implementation of Content and Language Integrated Learning (CLIL) and its results have been researched extensively, fewer works have focused on the effect of contextual factors (CF) on teachers' beliefs and on which ones are perceived as constraints. Furthermore, no research has explored how training might change those beliefs and help to adjust or modify some of the negative effects that CF exert on teaching practices. This qualitative study explores six in-service CLIL secondary teachers' beliefs about CF and the effect a training course had on them. Results confirmed CF are perceived as constraints to the successful implementation of CLIL, and training appears to have a positive effect in shaping negative teachers' beliefs and attitudes into more favourable ones. This, in turn, may help teachers to cope with the unfavourable teaching situations that CF may provoke on a daily basis. Since CF still seem to hinder CLIL success, considering teachers' beliefs about them in CLIL teacher training programmes may contribute largely to teachers' effectiveness.

Keywords: CLIL contextual factors; CLIL teachers; CLIL teachers' beliefs; CLIL teacher training; effective CLIL implementation.

RESUMEN. Aunque se ha investigado la implementación de la metodología Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE) y sus resultados ampliamente, pocos trabajos se han centrado en el efecto de los factores contextuales (FC) en las actitudes de los profesores y en cuáles se perciben como limitaciones. Además, ninguna investigación ha explorado cómo la formación del profesorado podría cambiar las creencias de los docentes y ayudar a ajustar o modificar algunos de los efectos negativos que ejercen los FC en las prácticas docentes. Este estudio cualitativo explora las creencias de seis profesores de secundaria AICLE en servicio sobre los FC y el efecto que un curso de formación tuvo sobre ellas. Los resultados confirmaron que los FC se perciben como limitaciones para la implementación exitosa de AICLE, y que la capacitación puede tener un efecto positivo en la transformación de creencias negativas en otras más favorables. Esto, a su vez, puede ayudar a los profesores a hacer frente a las situaciones de enseñanza desfavorables que los FC pueden provocar a diario. Puesto que estos factores parecen obstaculizar el éxito de AICLE, considerarlos en los programas de formación puede contribuir en gran medida a mejorar la eficacia de los docentes.

Palabras clave: Factores contextuales AICLE; profesores AICLE; Creencias de los profesores AICLE; Formación de profesores AICLE; implementación efectiva AICLE.

RESUMO. Embora a implementação da metodologia Aprendizagem Integrada de Conteúdos e de Língua (CLIL) e seus resultados tenham sido amplamente pesquisados, poucos estudos se concentraram no efeito dos fatores contextuais (FC) sobre as atitudes dos professores e quais são percebidas como restrições. Além disso, nenhuma pesquisa explorou como a formação de professores poderia mudar as crenças dos professores e ajudar a ajustar ou modificar alguns dos efeitos negativos dos FC nas práticas de ensino. Este estudo qualitativo explora as crenças de seis professores de CLIL do ensino médio em serviço sobre os FC e o efeito que um curso de treinamento teve sobre eles. Os resultados confirmaram que os FC são percebidos como restrições à implementação bem-sucedida de CLIL e que o treinamento pode ter um efeito positivo na transformação de crenças negativas em crenças mais favoráveis. Isso, por sua vez, pode ajudar os professores a lidarem com as situações de ensino desfavoráveis que os FC podem provocar diariamente. Como esses fatores parecem impedir o sucesso de CLIL, abordá-los em programas de treinamento pode ajudar muito a melhorar a eficácia dos professores.

Palavras-chave: fatores contextuais de CLIL; professores de CLIL; crenças dos professores de CLIL; treinamento de professores de CLIL; implementação eficaz de CLIL.

Introduction

Recent times have seen the worldwide strengthening of English as a lingua franca (Hüttner et al., 2013), as European authorities soon recognised that mastering foreign languages (FL) would be essential for citizens to live in the global world. As a result, they encouraged the teaching and learning of more than one FL in schools (European Parliament, 2009). In this context, Content and Language Integrated Learning (CLIL) spread rapidly around Europe, as this educational approach was assumed to contribute largely to the teaching and learning of English in schools (Castellano-Risco et al., 2020; Martí et al., 2022; Pérez-Cañado, 2018; Pérez-Vidal & Roquet, 2015). Countries soon showed enthusiasm for CLIL; however, its promise seems not to have been fulfilled due to, among other things, constraints related to contextual factors (hereafter referred to as “CF”), such as teaching materials or teacher cooperation (Custodio-Espinar, 2019; Lazarevic, 2022; Morton, 2013; Pavón-Vázquez et al., 2015) and lack of proper training (Banegas, 2012; Hillyard, 2011; Pérez-Cañado, 2016a, 2016b; Pistorio, 2009). CFs appear to become obstacles for teachers, both to carry out instructional practices congruent with their beliefs (Basturken, 2012; Borg, 2017) and to implement methodological knowledge previously acquired in professional development programmes in the classroom (Kurihara & Samimy, 2007; Lamie, 2001; Nishino, 2012). Even though some studies have explored the CFs that may negatively influence the successful implementation of CLIL (e.g., Barrios & Milla-Lara, 2020; Lancaster, 2018; Lazarevic, 2022), there is lack of research regarding which of them are the most influential. In addition to this, content teachers’ beliefs about them and their importance, as well as the effect training might have in alleviating some of the perceived problems related to them, has hardly been explored. This paper aims to contribute to this line of research by investigating which CFs are perceived by secondary in-service CLIL teachers as (the major) constraints to effective teaching practices and the evolution of those beliefs after a CLIL training course.

Literature Review

Teacher beliefs and the impact of context in the teaching process

Teacher beliefs are complex mental constructs that teachers hold about many areas related to education, such as teaching itself, learners, resources, or the subject matter, among others (Woods, 1996). They are the source of positive and negative emotions, such as satisfaction, stress, or insecurity, among others, and, thus, contribute to shaping teaching practice (Buehl & Beck, 2014; Phipps & Borg, 2009). There are core and peripheral beliefs. Core beliefs are formed early in a person's life, are usually based on prior learning experiences (Holt-Reynolds, 1992; Moodie, 2016), and are difficult to change (Moscovici & Vignaux, 1994); meanwhile, peripheral beliefs are formed later, based on professional development programmes (Almarza, 1996), context (Borg, 2003), and professional experience (Breen et al., 2001), among others, and are subject to change (Moscovici & Vignaux, 1994). This paper only deals with the latter and considers beliefs as individual premises that teachers consider to be true, that motivate action, have an emotional component, and may be resistant to change (Borg, 2011).

Context in education has traditionally been associated with “the social, psychological and environmental realities of the school and classroom” (Borg, 2003, p. 94). These realities are highly influential in shaping teachers' beliefs and practices and, thus, they have a relevant role in meeting the desired educational goals and outcomes (Lumpe et al., 2000). Ford (1992) classified contexts in education into three broad groups: (a) the designed environment (e.g., teaching materials, equipment); (b) the human environment (e.g., students, teachers and their colleagues, families); and (c) the socio-cultural environment (e.g., educational norms and policies). From all those CFs, five have been reported to play a decisive role in CLIL success: materials and time (related to [a]), teacher cooperation (related to [b]), and CLIL teacher training provision and support from education authorities (related to [c]) (Banegas, 2020; Barrios & Milla-Lara, 2020; Kim & Graham, 2022; Lancaster, 2018; Lazarevic, 2022; Marsh, et al., 2012; Meyer, 2010; Pérez-Cañado, 2017, 2018; Pistorio, 2009).

Teaching materials stand as one of the most determinant variables for CLIL implementation to succeed. They must go beyond the

mere provision of content knowledge in another language since they need to facilitate linguistic exposure to the target language (Morton, 2012). However, and despite this relevant role, studies have signalled a general lack of quality CLIL materials (Banegas, 2016; Banegas et al., 2020; Coyle et al. 2010; Gondoavá, 2015; Keogh, 2022; Lazarevic, 2022; Meyer, 2010; Pérez-Cañado, 2017, 2018; Villarreal & Bueno-Alastuey, 2022). As a result, teachers need to adapt materials and become generators of resources that suit both their requirements and their learners' needs.

The second CF, time, is closely related to the former one as generating appropriate materials requires extra time investment, and, thus, it increases teachers' workload (Lyster, 2007; Morton, 2012; Pérez-Cañado, 2018), which is considered excessive (Cabezas-Cabello, 2010).

The third factor, coordination between language and content teachers, would help the latter in the endeavour of dealing with their CLIL subjects and minimise the impact of dealing with both the FL and the content (Pavón-Vázquez & Ellison, 2018). Research has demonstrated that teacher coordination is also essential for CLIL implementation to succeed in schools since it favours significant learning (Pavón-Vázquez et al., 2015); however, it seems to be almost non-existent in CLIL contexts (Kurihama & Samimy, 2007; Lancaster, 2018).

Another important CF is appropriate training to provide sufficient and relevant knowledge about CLIL (Eurydice, 2006), and trained teachers are associated to quality-teaching practices that promote meaningful content and language learning (Cenoz, 2013; Dupuy, 2011). Research has long advocated for specifically designed programmes that provide practitioners with good theoretical and methodological knowledge and help them acquire expertise (Azparren-Legarre, 2020, 2022; Banegas, 2012; Breeze & Azparren-Legarre, 2021; Bueno-Alastuey & Villarreal, 2021; Hillyard, 2011; Kim & Graham, 2022; Marsh et al., 2012; McDougald, 2015; Mehisto & Asser, 2007; Pérez-Cañado, 2016a, 2016b; Pistorio, 2009). However, there seems to be no such provision as a general lack of teacher training has been reported (Cabezas-Cabello, 2010; Lancaster, 2016, 2018; Lasagabaster & Ruiz de Zarobe, 2010; Pérez-Cañado, 2016b, 2017), and countries seem to be generally failing at preparing their teachers (Mehisto et al., 2008; Pineda et al., 2022). Another problem seems to be the lack of opportunities to implement

what has been learnt in training courses due to other CFs, such as time constraints, university entrance exams pressure, or lack of teacher cooperation (Kurihara & Samimy, 2007; Lamie, 2001; Nishino, 2012).

Finally, education authorities play a significant role if the CFs that determine quality CLIL are to change for the better and, in fact, their support has traditionally been reported as decisive for CLIL success (Breeze & García-Laborda, 2016; Lancaster, 2016, 2018; Pérez-Cañado, 2017). Teachers also find this support positive (Barrios & Milla-Lara, 2020), but no explicit policies stating educational objectives, among other things, have been established yet (Hüttner et al., 2013; Lazarevic, 2022), so teachers feel that they have been left to their own devices.

CFs, thus, represent restrictions that might prevent teachers from putting their beliefs into practice (Borg, 2017), and, as effective teaching practices have always been associated to practices that are congruent with the beliefs teachers hold (Borg, 2011), this limitation may provoke a state of psychological tension in teachers (cognitive dissonance) (Guerra & Wubbena, 2017) that can seriously affect CLIL success.

Despite the importance of those factors, and even though individual CFs (e.g., materials: Ball, 2018; Meyer, 2010; Morton, 2012; CLIL teacher training: Banegas, 2020; Pérez-Cañado, 2016a; 2016b; teacher cooperation: Pavón-Vázquez et al., 2015) or a combination of two or three CFs together with other issues such as students' oral production (Lancaster, 2016) have been analysed individually, to the best of the authors' knowledge, no study has explored all of them together in the same setting. In addition, research exploring teachers' beliefs about CFs has been mainly quantitative based on Likert-scales with no open questions to analyse their thoughts, or a combination of teachers', students' and parents' perceptions about some CFs and other issues related to CLIL (Lancaster, 2016; Pérez-Cañado 2016a, 2016b; Szczesniak & Muñoz-Luna, 2022). Consequently, there seems to be a need for studies focusing on all the factors and analysing which of them are still perceived as constraints.

Furthermore, some studies have reported that when teachers' sense of self-efficacy is challenged (Ashton, 1985), they can act as agents of change (Seidlhofer, 1999) and mediate between the situational constraints imposed by CFs and the teaching process (Brutt-Griffler & Samimy, 1999). Therefore, it seems worth exploring whether

CLIL teacher training might help teachers in the endeavour of dealing with the most constraining CFs to improve their teaching practices. Thus, this study not only analyses which CFs are perceived as the most important drawbacks to successful implementation of CLIL, but also how teachers' beliefs evolve after a specific CLIL training programme.

Research Questions

The research questions that motivated this research were the following:

- Which of the five CFs described in the literature are still perceived as great hindrances to successful implementation of CLIL?
- Can a CLIL teacher education programme modify in-service teachers' beliefs and their capacity to deal with CFs?

Methodology

Context and participants

The context for the study was a CLIL teacher education programme delivered by the first author, Azparren-Legarre, over a period of five weeks in a two-hour session per week to a group of content teachers in a secondary education school. The programme included a blend of theory and practice combined with teacher beliefs about CLIL and about CFs.

Theory about CLIL included the foundations of the approach: content and language integration for effective teaching and learning (based on Coyle et al., 2010; Coyle & Meyer, 2021; Dalton-Puffer, 2013), planning (based on Ball et al., 2016; Coyle et al., 2010), material design (based on Ball, 2018; Mehisto, 2012), and assessment (based on Ball et al., 2016; Coyle et al., 2010; Morton, 2020).

The practical part consisted of planning the sessions, creating, or adapting materials and teaching resources, and an exam for a unit following the guidelines provided. This work was done individually, and each teacher focused on their specific content subjects. Finally, teacher beliefs about CFs were dealt with in guided group discussions focused

on specific issues related to the foundations of CLIL and to CFs during the sessions. In each discussion, participants talked about their beliefs and emotions and about a specific CFs, and their evolution could be recorded. The guided discussions focusing on CFs were introduced in this edition of the training course based on the comments about their constraining effects of the participants in a pilot training course delivered the previous year.

From the ten content teachers who attended the programme, six agreed to take part in the study. Table 1 summarizes the participants' profiles (hereafter referred to as "T1-T6").

Table 1. Participant profiles

Teacher	Gender	Age	Academic Background	English Proficiency	Subject Taught in English	Teaching Experience (years)	CLIL Teaching Experience (years)
T1	Female	41-50	Engineering	C1	Mathematics	5	1
T2	Male	31-40	Chemistry	C1	Chemistry	2	2
T3	Female	31-40	Chemistry PhD Chemistry	C1	Chemistry	2	2
T4	Female	41-50	Biology Biochemistry	C1	EFL	20	4
T5	Female	51-60	Master's MBA	Native	Geography & History	23	2
T6	Male	41-50	Geology	C1	Biology	6	3

Source: Own elaboration.

Instruments and Procedure⁵

Before the course, participants filled in an individual questionnaire about their background and CLIL practice. Twenty questions enquired about CLIL materials, resources and about the time teachers needed to prepare their CLIL subjects; 10 questions were related

⁵ The data used in this paper comes from a larger investigation (Azparren-Legarre, 2020).

to teacher cooperation; 10 to CLIL teacher training and, finally, 8 questions were about the support received from education authorities. All these questions included a yes/no question followed by an open question so teachers could explain their answers. One month after the CLIL course, individual face-to-face semi-structured interviews were conducted to gain better insight about the teachers' perceptions as regards CF within the CLIL setting. The interviews lasted 50 minutes on average and included the questions from the initial questionnaire and 5 additional questions about the CLIL teacher training programme. All the participants consented for their anonymous data to be used for the purpose of this research⁶.

Data analysis

Data was analysed qualitatively (Hammersley, 2013). First, the teachers' responses and the interviews were transcribed and coded into the five CF previously identified: materials, time, teacher cooperation, CLIL teacher training, and support from education authorities with the ATLAS.ti software (see Table 2 for codes and examples). Then, the number of times each of the factors was mentioned were computed, and each comment was further codified into positive or negative. A positive comment was categorised as a comment presenting a favourable or good emotion or thought about something, while a negative comment was one that included an unfavourable or bad emotion or thought. Finally, a comparison was made between each of the CFs before and after the course.

⁶ The project obtained approval and clearance from the Ethics Committee for Animal and Human Research and Biosecurity from our institution (PI-006/23), and the participants signed consent forms informing them of the procedure and risks involved and the way the data would be dealt with as indicated by the Committee.

Table 2. CF codes and examples

Context Factor (CF)	Code	Example of Comments
CLIL Teaching Materials	M+/- (Tx)	"I really need to feel comfortable with the materials I use for teaching, and, for the moment, the only way is to make my own materials." (T1)
Time	T+/- (Tx)	"We lack time to prepare our CLIL classes." (T3)
Teacher Cooperation	TC+/- (Tx)	"I never talk about CLIL with my colleagues." (T1)
CLIL Teacher Training Provision	TT+/- (Tx)	"I have never received CLIL teacher training." (T5)
Support from Education Authorities	SEA+/- (Tx)	"There is lack of training courses, support, and materials." (T1)

Source: Own elaboration.

Results

As can be seen in Table 3, the most mentioned CFs were teacher training provision and teaching materials (46 and 45 comments respectively), followed by time and teacher cooperation (24 and 23 respectively), and support from education authorities, which was mentioned the least (17).

Table 3. Number of comments about CFs

Context Factor (CF)	Before	After	TOTAL
CLIL Teaching Materials	18	27	45
Time	4	20	24
Teacher Cooperation	2	21	23
CLIL Teacher Training Provision	6	40	46
Support from Education Authorities	2	15	17

Source: Own elaboration.

Results showed an evolution in the number of comments each CF received before and after the training, but the order from most

mentioned to least mentioned remained almost the same. Before the course, teaching materials were the most mentioned CF (18) followed by teacher training provision (6), time (4), and teacher cooperation and support from education authorities (2 comments each). After the course, the participants seemed to have become more aware of the importance of the different CFs and the number of comments increased considerably. CLIL teacher training provision was mentioned 40 times, followed by teaching materials (27), teacher cooperation (21), time (20), and support from education authorities (15).

Table 4 shows the number of comments as regards their positive or negative nature. As can be seen, teaching materials and teacher training provision had the highest number of negative comments before the course (13 and 6, respectively), followed by time (4), and teacher cooperation and support from education authorities (2 negative comments each). After the course, teaching materials and teacher training provision were again the CFs with the highest number of negative comments (27 and 28 respectively), followed by time (20), support from education authorities (15), and teacher cooperation (10).

Table 4. Number of comments about CFs regarding their positive or negative nature

Context Factor (CF)	Before	After	TOTAL
CLIL Teaching Materials	5+/13-	0+/27-	5+/40-
Time	0+/4-	0+/20-	0+/24-
Teacher Cooperation	0+/2-	5+/16-	5+/18-
CLIL Teacher Training Provision	0+/6-	12+/28-	12+/34-
Support from Education Authorities	0+/2-	0+/15-	0+/17-

Source: Own elaboration.

As can be seen in Tables 3 and 4, a parallelism can be appreciated between the number of comments generated by the teachers and the [negative] nature of those comments, which is an indicator of the big concern that those CFs represented for the participants. Teaching materials and teacher training provision both generated the highest number of comments (45 and 46 comments, respectively), as well as the highest number of negative comments (40 and 34 comments, respectively), followed by time (24 comments, all of them negative), teacher

cooperation (23 comments, 18 negative), and by support from education authorities (17 comments, all of them negative).

Perceptions about CLIL teaching materials

CLIL teaching materials generated the highest number of comments before the course (18), whereas it was the second CF in number of comments after the course (27). As regards the nature of the comments, it also generated the highest number of negative comments before the course (13), whereas it was the second CF in negative comments after the course (27). Participants only generated positive comments about this CF before the course (5), whereas all the comments after the course were negative (27). Teachers' comments as regards this CF were not unanimous before the course and showed two distinct trends: using their own materials (3 teachers) or using both their own materials and the subject book (3 teachers). The former considered that books were an obstacle to the teaching and learning process, the language was very difficult, and the activities were not appropriate for learners to be able to understand and learn both content and language. They did not feel comfortable teaching with books, and, thus, created all the materials and adapted them to the age and cognitive development of learners, and to their level of English. On the contrary, the second group mentioned they used the book as a guide to the contents to teach, and to follow school policies, even though they also stated they preferred using their own materials. For example, T3 commented "I just use the book for reference. I create materials because they adapt better to my students and to my needs as a teacher and, if I ever use the contents from the book, I adapt them."

After the course, all the teachers agreed on their preference for using exclusively their own materials. They all considered that books were a mere translation of the Spanish version and thought that creating their own resources was a great necessity for CLIL quality teaching. For example, T4 explained "One feels disappointed with the book. Most of them are just literal translations of the same books in Spanish. They add a vocabulary appendix and some extra activities if you're lucky." As the course provided teachers with knowledge about

CLIL and about quality CLIL materials, teachers were able to develop a critical judgement about what they considered good and bad CLIL materials, and that changed their perspective regarding the textbooks. For example, T6 said,

There is not much CLIL material and now I see that the already existing materials are bad; they don't fit my students' needs or my needs as a teacher. I keep on searching for other resources all the time because I think that the book is not adapted to the methodology, and now I only use what I adapt because the book is useless.

In line with this, T3 explained “now I know how to do things. I see things from a different perspective and I am thinking of materials and activities that I will prepare that really integrate content and language.” The course and knowledge about the characteristics of good material clearly influenced their beliefs.

Perceptions about time

Time only generated 4 comments before the course; however, that number increased up to 20 comments after the course. All the comments before and after the course were negative. Results show the big concern that time was for these teachers. This concern raised, as did the teachers' awareness as a result of attending the course.

Before the course, teachers considered a lot of time was needed to prepare their CLIL subjects and that they lacked that time at school. For example, T1 commented “We need more time to prepare CLIL classes. It really takes more time to prepare a CLIL subject than a subject in the mother tongue.”

After the course, results showed that teachers continued considering time as a problematic issue for successful CLIL implementation. For example, T2 commented,

I don't find it difficult to implement the methodology in the classroom. The difficult part here is the amount of time that we need in order to prepare everything that is related to CLIL if we want to do it well as it really is, like planning or materials. That is the difficult part, yes, that we need a lot of time.

Results after the course also revealed that teachers struggled with CLIL subject preparation time since they spent their personal time

preparing their CLIL subjects, which affected their personal lives. As a result, participants felt frustration, anxiety, and stress. For example, T3 explained,

I need to devote so much time to preparing my CLIL subjects and CLIL materials that I find it hard to find a balance between my personal life and all the work I have to do with my CLIL subjects. I usually do this work at home. Next year, I have decided to cut down my working hours so I won't have a full timetable. This way, I will have fewer CLIL subjects to prepare and so, I will have less work to do at home.

Perceptions about teacher cooperation

Teacher cooperation generated 2 comments before the course, and 21 comments after the course. All the comments were negative before the course, whereas there were 5 positive comments about this CF (after the course) and 16 negative ones. Results showed an evolution in teachers' beliefs about cooperation between FL teachers and CLIL teachers, but not regarding cooperation among CLIL colleagues.

Before the course, results showed that FL/CLIL teacher cooperation was non-existent at the school. In fact, teachers mentioned they did not know that cooperation between the FL teacher and the CLIL teacher should exist within the context of the school and were surprised to be asked about it in the questionnaires. They thought that the CLIL subjects and the EFL subjects were different and that they should be treated separately.

After the course, teachers became aware that this type of professional cooperation should exist on a regular basis as part of the school's organizational structure, could be useful for them, and important for successful CLIL implementation. For example, T6 explained,

Wow, I didn't know that we should really have some support from the EFL didactic department. Now I see that this [CLIL implementation] is very complicated without the support of EFL teachers. If we cooperated, it would be useful for them as EFL teachers and for us.

However, teachers emphasised as a constraint that circumstances within the school did not favour cooperation. For example, T4 commented,

There should be an hour of coordination with teachers from other linguistic departments, and a minimum of one hour of coordination with the EFL teaching departments. This is very necessary to check that I am doing things right. And the EFL teacher should be providing some kind of support because working separately doesn't make sense.

Regarding cooperation among CLIL teachers, before the course, results showed that cooperation between CLIL colleagues did not exist, either. Participants in this study never talked about anything related to CLIL with their CLIL colleagues or with any other colleague within the school.

After the course, results showed that the lack of cooperation with their CLIL colleagues continued, but as they realised how important that cooperation could be, it became a source of frustration for the teachers. For example, T5 commented "I would love to share materials, however, I find that some teachers don't like to share. This is very general and has also been happening for many years." Teachers also expressed their wish to cooperate with their CLIL colleagues. For example, T6 explained "We should all collaborate because we are all working in different directions and this is ridiculous. CLIL entails some challenges so if we shared experiences or resources with somebody who has already been there, this could be really helpful."

Perceptions about CLIL teacher training

This CF generated only 6 comments, which was the second highest number, before the course, and 40 comments, by far the most mentioned CF, after the course. All the comments generated before the course were negative. After the course, teacher training provision was the CF with the highest number of negative comments (28), whereas 12 comments related to this course were positive.

Before the course, participants agreed at considering that there was a lack of CLIL teacher training provision. In fact, none of the teachers had attended any CLIL course in an official way. Only two teachers had been informed about CLIL on their own initiative, in their own private time, and by their own means. In addition to this, all participants were unanimous at considering that there was a lack of appropriate CLIL teacher education courses. For example, T4 commented

Different companies have sent us several advertisements about CLIL teacher training courses and we had to spend like twenty hours answering to online questionnaires before the course itself even started. What! I simply didn't even consider doing those courses.

Results also showed that teachers considered the courses long, which made them difficult to attend to. Finally, results showed that teachers considered the content of those courses unnecessary and superfluous for their needs.

After the course, teachers reaffirmed their opinion that existing CLIL teacher training courses were unsuitable for them to be able to implement the approach effectively and went further by describing what a CLIL course should be like. For example, T4 commented,

It is super necessary to have an efficient, short, clear preparation to be able to face CLIL teaching. Courses have to be short and useful, and then you need to be able to say: "okay, I'm going to do this in class today."

Teachers also compared the course in this study to previous courses. For example, T6 commented,

This has been a very practical course. It focused more on the reality of the classroom than other courses. And we can really put the contents of the course into practice in the classroom. Other courses that I have attended were very theoretical with very little emphasis in aspects like planning a unit, activities, or language.

Perceptions about support from education authorities

Support from education authorities also evolved regarding the number of comments at both moments in the study. Before the course, teachers only provided 2 comments regarding this CF; however, they provided 15 comments when the course concluded. All the comments provided by the teachers were negative. The evolution in the number of comments provided at each moment in the study as well as the negative nature of those comments shows a raising awareness as a result of attending the course and the big concern that this CF represented. Participants agreed before and after the course at considering support from education authorities totally non-existent both at the institutional and the school level.

Before the course, comments were short and simple. For example, T1 commented “No, I don’t think that authorities support us with this.” However, after the course, teachers considered this lack of support evident in relation to all the CFs analysed in this paper. Due to this new awareness, participants were able to expand their answers more at that moment in the study, and comments became very telling as they focused on all the rest of the CFs considering what education authorities could do to improve the situation.

Regarding materials, teachers considered that education authorities should take action to create a CLIL community for CLIL teachers to share their resources. For example, T4 explained “Materials should already be available for teachers, and sharing materials should be mandatory for all teachers. But, I mean, we can’t do this on our own. Somebody in the department of education has to manage all this.” Participants thought that all teachers would benefit and the amount of work they would need to do on a daily basis would decrease, and so would their stress.

Regarding time, teachers thought that authorities should provide some support in terms of time since they were content teachers who were teaching in an FL to contribute to society. For example, T4 commented,

The greatest difficulty is time. A lot of time is needed for CLIL subjects and this should be included in our working hours in school. We need more time, and it is a pain that public authorities do not support us more.

Regarding teacher cooperation, teachers considered that it was being neglected by authorities. According to the teachers, authorities should encourage teacher cooperation by providing specific time within the school working hours for teachers to have scheduled meetings to coordinate and collaborate.

Regarding CLIL teacher training, teachers considered that authorities should provide CLIL courses on a regular basis to content teachers, and that the courses should be useful and effective for them to implement CLIL in the classroom. All in all, the feeling among teachers was that being a CLIL teacher was an immense effort that was not recognised. For example, T4 commented,

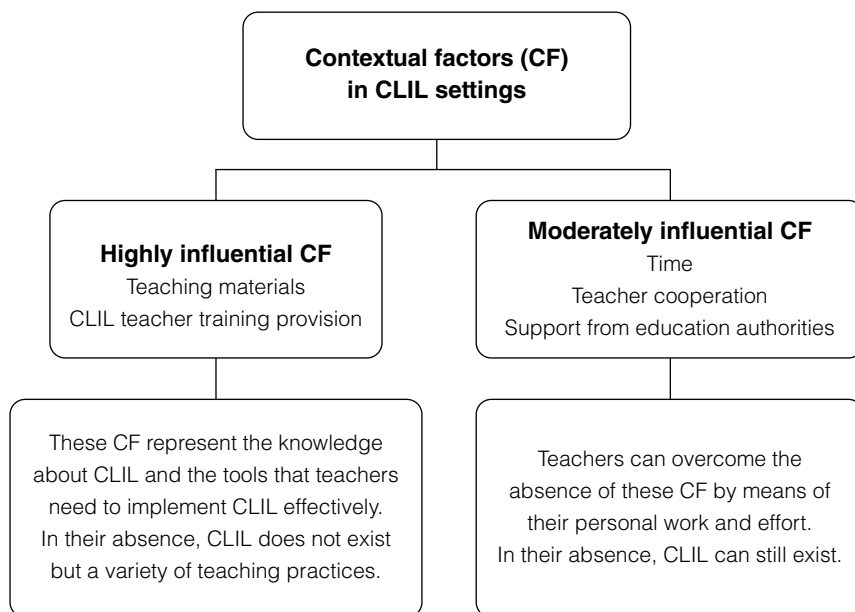
There are teachers who can be CLIL teachers because they got the English level, but they don't want to be CLIL teachers and try to avoid it at any cost. They aren't motivated and they think it is a burden. I don't think that society really considers teachers who can teach content subjects in two different languages in a positive way. And I really think that this should be very well considered.

Teachers expressed that the CFs mentioned made CLIL implementation difficult and blamed authorities for the lack of support to ease the process. For example, T1 said "CLIL implementation is not well planned... or is not planned at all. More time and resources are needed, and also a plan for implementing CLIL that comes from public institutions or the school."

Discussion

Regarding the first RQ, which enquired about which of the five CFs described in the literature are still perceived as great hindrances to CLIL successful implementation, this study has evidenced that the five CFs mentioned in previous research (materials, time, teacher training, teacher cooperation and institutional support) are still a big hindrance to successful CLIL implementation. Results made it possible to further state which CFs are the most influential and to classify them according to how high an obstacle for effective CLIL implementation they are perceived to be. Both the number of comments generated by the teachers about each CFs and the (negative) nature of these comments evidence that CFs could be classified into two different categories, as can be seen in Figure 1: (a) highly influential: teaching materials and teacher training provision; and (b) moderately influential: time, teacher cooperation, and support from education authorities.

Figure 1. Contextual factors (CF) regarding their influence



Source: Own elaboration.

Materials and CLIL teacher training generated the highest number of comments (45 and 46 comments, respectively) and the highest number of negative comments (40 and 34 comments, respectively), which evidences that they are perceived as the biggest constraint for teachers. These CFs could be considered highly influential since they affect teachers in a straightforward way. Teacher training provides knowledge about CLIL and about how to implement it, whereas teaching materials are the tools that teachers need to implement CLIL effectively (Ball, 2018; Mehisto, 2012). In the absence of both, what appears is a variety of teaching practices that cannot be considered CLIL.

Regarding materials, teachers considered subject books to be bad and an obstacle to teaching and learning. This finding is in line with previous research (Banegas, 2016; Coyle et al., 2010; Gondoavá, 2015; Keogh, 2022; Lazarevic, 2022; Meyer, 2010; Pérez-Cañado, 2017, 2018; Villarreal & Bueno-Alastuey, 2022), stating that there is lack of quality CLIL materials that support the teaching and learning process. Participants in this study reported they were creating or adapting materials for their CLIL subjects that suited their teaching needs

as well as their students' learning needs (Banegas et al., 2020; Pérez-Cañado, 2017) before the course, but the course seemed to have reinforced their beliefs on the suitability of this practice, as all the teachers stopped using the textbook after the course. In line with this, and further supporting previous research findings, teachers mainly adapted materials to the cognitive and linguistic level of their students (Lyster, 2007; Morton, 2012). They favoured creating their own material even though that meant an increased time investment, which was considered excessive as previous research has already reported (Cabezas-Cabello, 2010; Lazarevic, 2022; Pérez-Cañado, 2018). Consistent with previous research findings (Banegas, 2012; Hillyard, 2011; Kim & Graham, 2022; Lancaster, 2016, 2018; Lasagabaster & Ruiz de Zarobe, 2010; Mehisto et al., 2008; Pérez-Cañado, 2016, 2017; Pineda et al., 2022), lack of CLIL teacher training was reported as an important constraint, and it was supported by the lack of knowledge about the approach they were using to teach their content subjects. Despite the fact that three participants had got some previous training about CLIL, teachers considered that the courses available were not useful for them to know how to teach. Nevertheless, teachers were able to pinpoint the qualities that a CLIL teacher training course should have, which evidenced the urgent need to design specific courses or training opportunities, as has been previously pointed out (Azparren-Legarre, 2020, 2022; Banegas, 2020; Breeze & Azparren-Legarre, 2021; Bueno-Alastuey & Villarreal, 2021; Marsh et al., 2012; McDougald, 2015; Mehisto & Asser, 2007; Pérez-Cañado, 2016a, 2016b; Pistorio, 2009), that provide teachers with knowledge about the foundations of CLIL, about how to design quality CLIL materials, and that educate them into cooperating with other colleagues by raising their awareness of the great contribution it can be for effective CLIL implementation. In line with this, the course provided to the participants was short and addressed their real needs in the CLIL classroom, and these characteristics were considered positive. Time, teacher cooperation, and support from education authorities could be considered as moderately influential CFs since they are important for CLIL to be effective; however, they do not affect CLIL teachers in a straightforward manner as materials and teacher training provision do. Teachers can overcome the hindrance that time, teacher cooperation, and support

from education authorities represent by means of personal effort in time and work terms, if they are willing.

Regarding teacher cooperation, this study has evidenced that it is still non-existent in some contexts where the FL and the content subjects are considered nonrelated (Pavón et al., 2015). This also indicates that teachers were not aware of the importance of focusing on language in this approach. Teachers also revealed the school atmosphere did not promote talking or sharing experiences related to CLIL with other colleagues, which was a source of frustration and stress.

Finally, support from education authorities can be considered moderately influential since teachers need public institutions to become agents of change in order to provide teachers with what they need to implement CLIL effectively. This study has revealed that both at school and at institutional level, they are still failing at providing support to CLIL teachers. Participants found this lack of support unfair and frustrating. Teachers considered that authorities should get involved in the CLIL endeavour (Breeze & García-Laborda, 2016; Lancaster, 2016; Lazarevic, 2022; Pérez-Cañado, 2017) and promote strategies that supported them in their CLIL teaching practice.

Regarding the second RQ, which delved into whether a CLIL teacher education programme can modify in-service teachers' beliefs and their capacity to deal with CF, results have evidenced that although teachers' beliefs about the constraining effects of most CF did not change to a great extent after the course, teachers became aware of their constraining effect and seemed to be more capable of dealing with them. The teachers' comments revealed that, after the course, the teachers could resort to their CLIL knowledge to support them. They understood what CLIL was and how it should be done, corroborating previous research regarding an increase in teachers' awareness after specific training (Marsh et al., 2012; McDougald, 2015; Mehisto & Asser, 2007; Pérez-Cañado, 2016a, 2016b). As it was expressed by the teachers, their sense of self-efficacy improved and they became active decision makers, who evolved from frustrated and stressed professionals who did not know how to do things to teachers who had developed CLIL teaching criteria, and whose thoughts and decisions were based on CLIL knowledge and not intuition. As a result, the teachers' relationship with CF constraints

evolved from distressing and upsetting to a more relaxed one capable of coping with some of the CF constraints. The drawbacks and obstacles remained there, but teachers knew how to deal with them. In fact, all the participants in this study were active agents of change that mediated with the unfavourable dynamics that context was provoking (Seidlhofer, 1999) in order to improve their teaching practices into more effective ones (Borg, 2017). More specifically, teachers became active agents of change by creating and adapting materials and by investing a lot of time on their own initiatives on CLIL duties such as studying specific content language, looking for information about CLIL to learn about it, or looking for specific CLIL teacher training courses. This happened at the teachers' private sphere of their lives, which made CLIL tough for them and a big effort due to the contextual circumstances at school, which did not enable them to work on CLIL.

Conclusion

This study has focused on teachers' beliefs regarding the five most important CFs reported by previous literature to see whether they still represent obstacles to CLIL success a decade after European countries welcomed the approach and the effect a training course had on those beliefs. This study points to the fact that the situation appears not to have evolved positively since CFs are still considered a hindrance to attaining CLIL potential benefits. The participants' comments revealed that CFs affect content teachers in two different ways: (a) psychologically, as they represent an obstacle to the way these teachers would like to teach, which results in a state of psychological tension that includes a variety of negative emotions such as stress, frustration, and insecurity; and (b) professionally, in that CFs act as an obstacle to the implementation of practices congruent with teachers' beliefs. In that sense, CFs are reported as constantly challenging teachers' sense of self-efficacy.

This study has evidenced that considering teachers' beliefs about CFs during CLIL training courses as well as providing teachers with knowledge about CLIL and CFs helped shape those beliefs and attitudes

into more favourable ones or at least to become aware of their constraining effect and look for ways to try to improve their limiting effects. The training course seemed to have paved the way for teachers to become more reflective practitioners and active decision makers who can think, decide and act upon solid grounds on the approach, and who may become more efficient as CLIL teachers due to their improved capacity to deal with the dynamics that CFs seem to provoke. This contribution is positive for CLIL teacher development programmes since it evidences that both the CFs and teachers' beliefs should be dealt with in training courses to aid teachers in the transition from content teachers to CLIL teachers. At the same time, it emphasises the need to carry out such training.

The qualitative nature of this study has permitted to analyse in detail teachers' beliefs regarding CFs in CLIL settings so as to illustrate specific minor evolutions, which might remain undisclosed in larger studies. Although this approach allows the teachers to modify the course to better suit these students' needs, it is also a limitation since the findings relate to a reduced sample of participants. Future research in this field should be carried out with a bigger pool of participants from different countries to test the validity of these results and draw a portrait of the current situation regarding CFs in Europe and the way they impact teachers and their teaching practices at the cognitive level. In addition to this, teaching practices could not be observed, which is another limitation of the study as the effect of the training on real teaching practices could not be evidenced. Further research should include classroom observation of teachers' practices to confirm that teachers implement what they learned.

Finally, this study has evidenced that CFs still represent big constraints and urgent action is needed on the part of education authorities, both at institutional and school level, for their improvement. Furthermore, the study has allowed the provision of a CF classification according to their level of influence (high and moderate), in the success of CLIL. A combination of strategies that target the core of CFs are needed, such as establishing clear guidelines and educational objectives to be achieved, providing CLIL teacher training to teachers on a regular basis, allocating specific CLIL working time within the teachers' school hours, scheduling weekly meetings in order to encourage

teacher cooperation among FL and CLIL teachers, and providing a specific space within schools for CLIL teachers of different subjects to be able to meet, share experiences and collaborate. This study should represent a wake-up call for education authorities into becoming active agents of change of the CFs and the circumstances under which content teachers carry out their CLIL teaching practice if the effectiveness of the approach is sought.

Disclosure Statement

The authors report there are no competing interests to declare.

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