CLIL Teachers' Needs and Professional Development: A Systematic Review

Necesidades y desarrollo profesional de los docentes AICLE: revisión sistemática

Necessidades e desenvolvimento profissional dos docentes AICL: revisão sistemática

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ABSTRACT. This study utilizes a systematic review process to synthesize research on content and language integrated learning (CLIL) teachers' self-reported needs and professional development. In order to draw connections between these two areas of research and highlight gaps, this study adopted a framework composed of seven competences: linguistic, pedagogical, scientific knowledge, organizational, interpersonal, collaborative, and reflective. Six electronic databases were used, and a forward and backward search was conducted. After considering inclusion criteria, 43 articles were included, with 33 studies for teachers' needs, nine for professional development, and one for accounting for both. The findings of the review showcase that not all competences have received equal coverage in the literature. In some cases, teachers' reported needs within a competence were not addressed in the professional development literature. Further, the reports of many competences seem to be general, suggesting future work may need to examine each competence in more depth.

RESUMEN. En este estudio, se utiliza un proceso de revisión sistemática para sintetizar las investigaciones sobre las necesidades autoinformadas y el desarrollo profesional de los docentes del Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE). A fin de establecer conexiones entre estas dos áreas de investigación y resaltar las brechas, este estudio adoptó un marco conformado por siete competencias: lingüística, pedagógica, conocimiento científico, organizacional, interpersonal, colaborativa y reflexiva. Se utilizaron seis bases de datos electrónicas y se realizó una búsqueda hacia adelante y hacia atrás. Después de considerar los criterios de inclusión, se incluyeron 43 artículos, con 33 estudios para las necesidades de los docentes, nueve para el desarrollo profesional y uno para dar cuenta de ambos. Los hallazgos de la revisión demuestran que no todas las competencias han recibido la misma cobertura en la literatura. En algunos casos, las necesidades informadas por los docentes dentro de una competencia no se abordaron en la literatura sobre desarrollo profesional. Además, los informes de muchas competencias parecen ser generales, lo que sugiere que trabajos futuros deberían examinar cada competencia con mayor profundidad.

RESUMO. Neste estudo, é utilizado um processo de revisão sistemática para sintetizar as pesquisas sobre as necessidades autorrelatadas e o desenvolvimento profissional dos docentes da Aprendizagem Integrada de Conteúdos e de Língua (AICL). A fim de estabelecer conexões entre essas duas áreas de pesquisa e salientar as lacunas, este estudo adotou um quadro conformado de sete competências: linguística, pedagógica, conhecimento científico, organizacional, interpessoal, colaborativa e reflexiva. Foram utilizadas seis bases de dados eletrônicas e realizada uma busca para frente e para trás. Após considerar os critérios de inclusão, foram incluídos 43 artigos, com 33 estudos para as necessidades dos docentes, nove para o desenvolvimento profissional, um para evidenciar ambos. Os achados da revisão demonstram que nem todas as competências vêm recebendo a mesma cobertura na literatura. Em alguns casos, as necessidades relatadas pelos docentes dentro de uma competência não são abordadas na literatura sobre desenvolvimento profissional. Além disso, os relatos de muitas competências parecem ser gerais, o que sugere que trabalhos futuros devam analisar cada competência com maior aprofundamento.

Introduction

Content and language integrated learning (CLIL) has expanded far beyond its origins in Europe and is now practiced globally (Bower et al., 2020). Concerned about the limits of time and language exposure (Lightbown & Spada, 2020), countries are often lured toward CLIL's promise of "two for one" (Lightbown, 2014, p. 10). Yet, such promises often fall short, as shown in Graham et al.'s (2018) systematic review of CLIL outcomes. While research on CLIL has been accumulating, Cammarata and Ó Ceallaigh (2020) suggested that one area has been neglected—the development of teachers.

Though there has been recent progress on CLIL professional development research (e.g., Cammarata & Ó Ceallaigh, 2020; Lo, 2020), this area of scholarship remains at the emerging stage. One question remaining is what teachers need to facilitate CLIL learning successfully. One response is Pérez Cañado's (2018) seven competences for CLIL teachers. *Linguistic competence* represents a teacher's command of the target language, specifically the use of the target language for classroom instructional purposes. *Pedagogical competence* in CLIL, as Pérez Cañado (2018) emphasized, is not simply any pedagogy but rather a "host of student-centered methodologies" (p. 213), which Coyle and Meyer (2021) further clarified should promote the integration of content and language. However, such integration is only possible when teachers have a *scientific knowledge competence*, encompassing both mastery of the content matter and understanding of the "theoretical underpinnings of CLIL" (p. 213). *Organizational competence* pools the knowledge from all of the previously discussed competences and arranges it for learning management through a "vast gamut of groupings and learning modalities" (p. 214). CLIL teachers must also be sensitive to the differing affective needs of students, or what Pérez Cañado (2018) termed *interpersonal competence*. *Collaborative competence* acknowledges the complexity of CLIL and the need "to liaise with colleagues" (p. 214). The final competence is the *reflective competence*, which provides teachers the means to reflect on the complexity of CLIL and take action toward further developing their abilities.

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Despite some recent progress in understanding CLIL teachers' professional development needs, the current reality is that many teachers are simply being told to "use CLIL" (Ting, 2011, p. 314) without formal training. As with other forms of education, CLIL is likely only as effective as the teachers facilitating it; thus, understanding teachers' needs and connecting them with professional development programs will be critical for CLIL to cultivate student learning.

Acknowledging the need for CLIL professional development rooted in the actual needs of teachers (Díaz-Maggioli, 2004), this study utilizes a systematic review approach to report on current research in two areas—CLIL teachers' needs and CLIL professional development. This systematic review seeks to synthesize the challenges faced by CLIL teachers alongside reports on CLIL professional development using Pérez Cañado's (2018) seven competences as a framework. Specifically, this paper aims to address the following research questions: What are the teacher-reported challenges of CLIL, and how are these challenges addressed in CLIL professional development?

Method

A systematic literature review process was adopted for this study (Zawacki-Richter et al., 2020). Six electronic databases were used to conduct the current research:

- ERIC
- APA PsycINFO
- Linguistics & Language Behavior Abstracts
- Proquest Dissertations
- Academic Search Premier
- Education Research Complete

The thesauri of the databases were consulted when defining the following search terms:

Group 1 (abstract): "bilingual education" OR "content and language integrated learning" OR "CLIL" OR "integrating content and language in higher education"[1] OR "ICLHE" OR "English medium instruction" OR "EMI"

Group 2 (subject): "teachers" OR "educators" OR "faculty" OR "instructors"

The group of terms was bound to the abstract parameter, whereas the second group was more restricted to the subject parameter. The search was conducted in November 2020.

At the time of the search, inclusion criteria were set to include relevant articles to address the research questions of the current systematic review. Eight inclusion criteria were identified as in the following:

The research

1. is empirical.
2. is in or preparing for a primary or secondary school setting (i.e., Grade 1-12).
3. is on bilingual education.
4. is on teaching to majority language students (i.e., no ESL, heritage, or maintenance).
5. is on a language with aural or oral forms.
6. is on using a second or foreign language for content-area classroom teaching (i.e., no EAP, ESP, theme-based English class).
7. reports on teachers' needs as reported by the teachers themselves OR teacher professional development.
8. is reported in English.

The first criterion for empirical research is to control the quality of the review; we wanted to exclude any review articles and edited collections that may not yield the same significance as peer-reviewed articles. The second criterion regarding the target population is to account for addressing the teachers' voices on their needs. Considering that there is little research on CLIL with kindergarteners (Anderson et al., 2015) and that CLIL in higher education is more generally referred to as EMI with a specific focus on students' majors as a content learning (Aguilar, 2017), we limited the target population to teachers working in grades 1 through 12. The third and fourth criteria were set to ensure that the articles found address the research questions of the present systematic review. The fifth criterion ensured that we limited our scope to aural/oral languages rather than take the broader definition of bilingual education inclusive of sign languages. The sixth and seventh criteria also ensured that the included articles matched the current research questions. Last, the search was limited to articles written in

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English due to the authors' limited linguistic competencies, which is an explicit limitation of this review.

Figure 1 illustrates the article selection process. The search of the databases returned 4,227 articles. Duplicates were identified and removed (n = 1,496), leaving 2,732 articles for screening. After screening the titles and abstracts with the inclusion criteria, 115 articles remained for full-text review. The full-text screening process removed 76 articles, leaving 39 articles to be included. The authors cross-checked the initial full-text screening, removing 13 more articles and leaving 26 for inclusion. Using the remaining articles, forward and backward searches were conducted, adding 17 more. A total of 43 articles were included in the final review. The included articles were read and coded on a researcher-created matrix created with fields for author, year, title, country, level of education, subjects, methods, and each of the seven competences.

Figure 1. Selection process for included studies
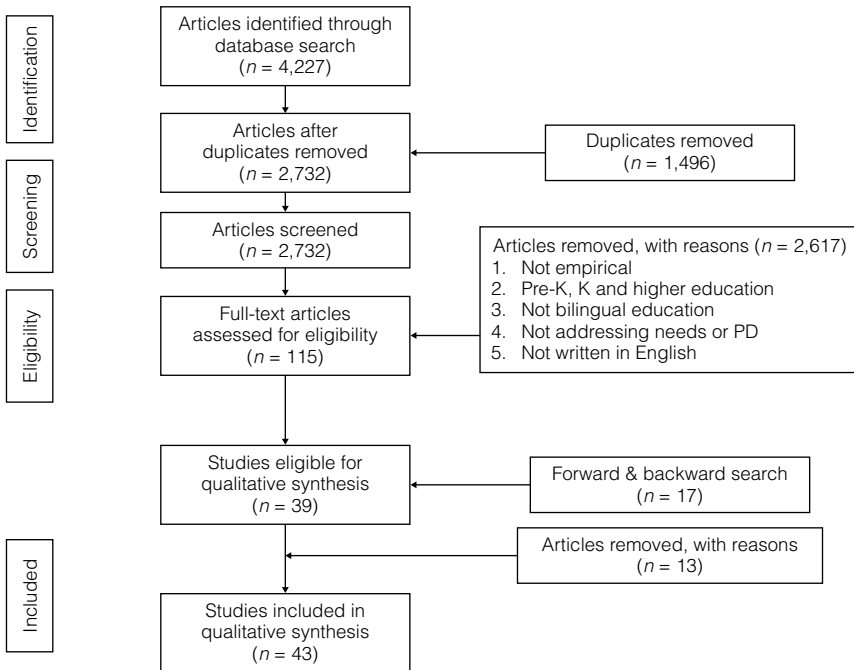
Source: Own elaboration

Findings

The characteristics of each included article are presented in Table 1. Most studies (n = 33) addressed CLIL teacher needs, nine reported on CLIL professional development, and one reported on needs and professional development. Most studies were conducted in Europe (n = 26), followed by Asia-Pacific (n =9), Latin America (n =5), and North America (n = 2), with one study with an unspecified location. All studies addressed at least one of the CLIL teacher competences, with some addressing as many as five. No studies addressed all seven competences. Findings on each competence are presented below.

Table 1. Included Studies

Author (Date)	Country	Level	Needs/PD	Competences
Al-Obaidli (2009)	Qatar	Primary, Secondary	Needs	L, P, S, O
Alcaraz-Mármol (2018)	Spain	Primary	Needs	P
Banegas (2016)	Argentina	Not Specified	PD	S, O
Banegas (2020)	Argentina	Secondary	PD	O, R
Bárcena Toyos (2017)	Spain	Primary	Needs	L, P, O, C, R
Barrios and Milla Lara (2020)	Spain	Primary, Secondary	Needs	P, R
Cammarata and Haley (2018)	Canada	Secondary	PD	P, S, O, C, R
Cammarata and Tedick (2012)	Not Reported	Primary, Secondary	PD	L, O, R
Durán-Martínez and Beltrán-Llavador (2016)	Spain	Primary, Secondary	Needs	P, O, R
Durán-Martínez and Beltrán-Llavador (2020)	Spain	Primary	Needs	L, P, O
Durán-Martínez et al. (2020)	Spain	Primary	Needs	L, P

Author (Date)	Country	Level	Needs/PD	Competences
Dvorjaninova and Alas (2018)	Estonia	Primary	Needs	P, S, O
Fernández and Halbach (2011)	Spain	Primary	Needs	L, P, S, O, C
Fielding and Harbon (2015)	Australia	Primary	Needs	P, O
Francomacaro (2019)	Italy	Secondary	PD	L, P, S, O
Infante et al. (2009)	Italy	Primary	Needs	L, P, O, C
Karabassova (2020)	Kazakhstan	Secondary	Needs	L, P, O, C
Kewara and Prabjandee (2018)	Thailand	Secondary	PD	L
Kong (2014)	Hong Kong	Secondary	Needs	L, O, C
Kong et al. (2011)	China	Primary, Secondary	Needs	L, P, O, R
Lazarević (2019)	Serbia	Secondary	Needs	L, P
Lo (2019)	Hong Kong	Secondary	PD	L, P, S, O
Lo (2020)	Hong Kong	Secondary	PD	P, S, O
Lochmiller et al. (2016)	Colombia	Primary	Needs	L, P, O, R
Massler (2012)	Germany	Primary	Needs	L, P, S
Mattheoudakis and Alexiou (2017)	Greece	Primary, Secondary	Needs	L, P, S
McDougald and Pissarello (2020)	Colombia	Primary, Secondary	Needs/PD	P, O, C
Méndez García and Pavón Vázquez (2012)	Spain	Primary, Secondary	Needs	C, R
Mustafawi and Shaaban (2019)	Qatar	Primary, Secondary	Needs	O
Nieto Moreno de Diezmas (2019)	Spain	Secondary	Needs	L, P
Oattes et al. (2018)	The Netherlands	Secondary	Needs	L, R
Oxbrow (2020)	Spain	Primary, Secondary	Needs	L
Pavón Vázquez et al. (2020)	Spain	Primary, Secondary	Needs	O, C

Author (Date)	Country	Level	Needs/PD	Competences
Pena Díaz and Porto Requejo (2008)	Spain	Primary	Needs	L, P, S
Pérez Cañado (2016a)	Multiple (Europe)	Primary, Secondary	Needs	L, P, S
Pérez Cañado (2016b)	Multiple (Europe)	Primary, Secondary	Needs	L, P, O, R
Pérez Cañado (2017)	Spain	Primary, Secondary	Needs	L, P, S, C, R
Pladevall-Ballester (2015)	Spain	Primary	Needs	L, S, O, I, C
Relaño-Pastor and Fernández-Barrera (2019)	Spain	Secondary	Needs	S, O, C
Sánchez Meléndez (2020)	Spain	Primary	Needs	L, P, O, C
Tedick and Zilmer (2018)	United States	Primary, Secondary	PD	C, R
Torres-Rincón and Cuesta-Medina (2019)	Colombia	Primary	Needs	L, P, S
Yildiz (2019)	Spain	Primary, Secondary	Needs	L, P, S, O, C

Note. PD = professional development; L = linguistic competence; P = pedagogical competence; S = scientific knowledge competence; O = organizational competence; I = interpersonal competence; C = collaborative competence; R = reflective competence

Source: Own elaboration

Linguistic Competence

There were 24 studies where teachers mentioned needs regarding linguistic competence, both generally and for specific skills. In many of these studies, CLIL teachers expressed insufficient linguistic competence as a challenge and desired to improve their general English proficiency. Interestingly, teachers from Yildiz's (2019) study reported that their general linguistic competence was high but lacked linguistic competence in subject-specific vocabulary knowledge. Regarding other specific linguistic skills, a few studies reported teacher concerns

about pronunciation (Durán-Martínez & Beltrán-Llavador, 2020; Pérez Cañado, 2016b) as well as general deficiencies in the four skills—reading, listening, speaking, and writing (Al-Obaidli, 2009).

Professional development for linguistic competence was addressed twofold from language users' and teachers' perspectives. Regarding language users, Kewara and Prabjandee (2018) emphasized the need to develop the language proficiency of CLIL teachers for lesson delivery and classroom management, and Lo (2019) stressed the importance of training in using language to construe meaning, not learning about language itself. As for language teachers, Cammarata and Tedick (2012) witnessed teacher identity transformation where content teachers began to acknowledge their role as language teachers as their knowledge of language developed. Similarly, Francomacaro (2019) focused on supporting CLIL teachers' understanding of language learning, specifically features of academic language, texts, and genres.

Pedagogical Competence

Pedagogical competence was the most represented among the competences in CLIL teacher needs studies ($n = 26$). Six studies specifically discussed the limited knowledge reported by CLIL teachers regarding the CLIL approach and pedagogies (Barrios & Milla Lara, 2020; Infante et al., 2009; Karabassova, 2020; Kong et al., 2011; Pena Díaz & Porto Requejo, 2008; Torres-Rincón & Cuesta-Medina, 2019), leading to challenges in integrating content and language. Other studies called for including a pedagogical component in professional development training for CLIL teachers. In fact, pedagogical training topped the list of needs in Durán-Martínez and Beltrán-Llavador's (2016) study, whereas approximately one-third of the participants in Fernández and Halbach's (2011) study called for the inclusion of methodology in their training.

Likely responding to the strong desire by CLIL teachers to receive pedagogical training, the programs in Cammarata and Haley (2018), Francomacaro (2019), Lo (2019, 2020), and McDougald and Pissarello (2020) all worked to develop the pedagogical competence of CLIL teachers. These workshops focused on instructional techniques (McDougald & Pissarello, 2020) and scaffolding strategies (Francomacaro, 2019; Lo, 2019, 2020). Francomacaro (2019) also addressed the ways of

incorporating assessment (formative, summative, self-assessment) into CLIL teaching.

Scientific Knowledge Competence

Twelve studies reported teacher needs related to the scientific knowledge competence, encompassing both content knowledge and theories of CLIL. Teachers in most of these studies responded that they needed more training in developing their specific-subject knowledge. For many CLIL teachers, there was a recognition that the focus of their lessons was more on language, as their former training was as language teachers (Torres-Rincón & Cuesta-Medina, 2019). Further, some teachers found it challenging to teach content knowledge across the curriculum since they were asked to teach multiple subjects (Relaño-Pastor & Fernández-Barrera, 2019). Unfortunately, many teachers reported time constraints as an issue, finding it challenging to master content knowledge due to their heavy workload (Massler, 2012).

Despite many calls for training in content knowledge, professional development studies addressing the scientific knowledge competence mainly addressed CLIL theories rather than content knowledge. Lo (2019, 2020) and Francomacaro (2019) all included theories of second language acquisition in their workshops, and Banegas (2016) and Cammarata and Haley (2018) provided professional development on theoretical foundations, fundamental principles, and curricular models of CLIL.

Organizational Competence

Organizational competence was addressed in 20 studies on CLIL teachers' needs. Teachers mainly reported time constraints and lack of materials as their foremost challenges in organizing their CLIL class. Teachers mentioned that CLIL requires much time planning and preparing lessons (Dvorjaninova & Alas, 2018; Mustafawi & Shaaban, 2019; Pladevall-Ballester, 2015), and the lack of already-made materials exacerbated this (Bárcena Toyos, 2017). However, the teachers in several studies requested training and resources for materials development (Durán-Martínez & Beltrán-Llavador, 2020; Fernández & Halbach, 2011;

Lochmiller et al., 2016). Beyond this, classroom management was reported as an issue needing attention. An interviewee from Fielding and Harbon's (2015) study stated that the students' behavioral issues were a problem, though this was not necessarily the case for all CLIL teachers (e.g., Yildiz, 2019).

For professional development, several studies addressed organizational competence through lesson planning. Banegas (2016) focused on developing lesson plans utilizing the language triptych and students' first language. Similarly, Cammarata and Haley (2018) introduced a curricular planning template to bring attention to form-focused instruction. The professional development in Francomacaro (2019) and Banegas (2020) also emphasized curriculum and lesson planning.

Interpersonal Competence

Interpersonal competence was addressed in only one study on teacher needs, and no studies on professional development directly addressed this competence. Two out of the five teachers in Pladevall-Ballester (2015) confessed that they felt insecure teaching content in a foreign language, especially encouraging students to use it in the classroom. Beyond this single finding, no teacher self-reports needs explicitly related to interpersonal competence.

Collaborative Competence

Collaborative competence was mentioned in 13 studies on teachers' needs. Although a few studies reported collaboration among CLIL teachers (Pavón Vázquez et al., 2020; Pérez Cañado, 2017), the majority indicated that teachers were not collaborative, despite teachers seeing the need for collaboration (e.g., Fernández & Halbach, 2011; Infante et al., 2009; McDougald & Pissarello, 2020). The reasons that teachers are reluctant to collaborate include the lack of time (Bárcena Toyos, 2017), the tension between content and language teachers (McDougald & Pissarello, 2020), and the lack of opportunities to collaborate (Pladevall-Ballester, 2015).

Only a few professional development studies addressed collaborative competence, though none reported explicit instruction on how to

collaborate. Teachers in Tedick and Zilmer (2018) collaborated on multiple assignments throughout the workshop. Similar collaboration was facilitated by Cammarata and Haley (2018), leading to teachers realizing how collaboration could be incorporated into their districts and schools.

Reflective Competence

Nine studies addressed the reflective competence as a need of CLIL teachers, at least in terms of desiring more professional development for facilitating reflection on practice (Bárcena Toyos, 2017; Durán-Martínez & Beltrán-Llavador, 2016; Lochmiller et al., 2016; Pérez Cañado, 2016b). Moreover, the teachers revealed they valued professional development and were more motivated and satisfied with their job when given opportunities to reflect and grow (Barrios & Milla Lara, 2020; Oattes et al., 2018). The studies on professional development provided evidence of the results of professional development as reflection: Banegas (2020), Cammarata and Tedick (2012), and Tedick and Zilmer (2018) all reported teachers reflecting and developing a sense of professional empowerment and agency. However, besides these generalizations of professional development as reflection, little reference was found in specific ways of reflecting, particularly outside professional development participation.

Discussion

This systematic review examined the literature on the self-reported needs of CLIL teachers and professional development. Of the 43 studies, the majority addressed multiple competences, either as challenges or professional development foci. Within the two domains of study—teacher needs and professional development—similarities in the representation of some competences and the lack thereof for others were found; in other words, competences such as the linguistic and pedagogical competences have received much coverage within the literature while the interpersonal competence, as an example, was almost absent. We believe that Pérez Cañado's (2018) seven competences can

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provide one framework to ensure that future studies on CLIL teachers' needs and professional development account for all competences needed.

Nevertheless, even when competences received ample coverage within the studies, these competences were often described more generally rather than focusing on specific aspects of each competence. This is not necessarily a critique, as this is admittedly an emerging area of research, but this perhaps is a signal that specific areas within each competence remain unexplored. Thus, current research is not only falling short on the breadth of all competences but also seems limited in terms of depth. A brief discussion of future directions for each dimension is provided below.

Many CLIL teachers expressed their concerns regarding their limited linguistic proficiency (e.g., Durán-Martínez & Beltrán-Llavador, 2020; Karabassova, 2020; Massler, 2012). However, what language proficiency means needs further interrogation in the research. Abello-Contesse (2013) suggested that the importance of teachers demonstrating a general proficiency in the additional language of instruction is unclear, but the instructor should demonstrate the ability to use English for teaching. Thus, we recommend that future research on needs inquire about the specific discourse functions teachers use and subsequent professional development be based on these functions.

For pedagogical competence, teachers also reported a general need to develop their instructional strategies and knowledge of methodology (e.g., Al-Obaidli, 2009; Bárcena Toyos, 2017; Barrios & Milla Lara, 2020; Durán-Martínez & Beltrán-Llavador, 2016). However, teachers' needs in some studies were more specific (e.g., age-specific strategies, Fielding & Harbon, 2015). This finding suggests that research may need to target specific sub-populations of CLIL teachers rather than conduct broad surveys.

Scientific knowledge competence contains two components—knowledge of the content area and knowledge of CLIL theories—which were both mentioned among teachers' needs but were not as equally represented in the literature on professional development. Professional development more often addressed CLIL theories and did not report much on content-area knowledge development. However, the nature of CLIL is that these two aspects of scientific knowledge

should be integrated, and CLIL theories may be best considered within specific content area domains (Coyle & Meyer, 2021). Therefore, just as CLIL teachers are encouraged to integrate content and language, teacher educators must seek to integrate content knowledge and language theories.

Similarly, there seemed to be a disconnect between the organizational competence needs and professional development presented in the literature. Many teachers expressed concerns regarding organizational competence in terms of material development, but few studies focused specifically on this aspect. Lesson planning, which was also a need of teachers, seemed to receive far more attention in the professional development literature.

As for the remaining three competences—interpersonal, collaborative, and reflective—when present in the literature, it was in a general manner and, in the case of professional development, seen as a byproduct rather than an explicitly taught competence. Only two studies reported providing professional development that incorporated the collaborative competence (Cammarata & Haley, 2018; Tedick & Zilmer, 2018), but these were more learning-by-doing than actually learning strategies and models to build a collaborative competence. A similar case is seen with reflective competence, where teachers indeed engaged in reflection during most professional development reports, but the explicit learning of how to reflect seemed less apparent. As for the interpersonal competence, none of the included professional development studies reported explicitly addressing this competence, and only one teachers' needs study was coded with this competence (Pladevall-Ballester, 2015). Admittedly, there is some overlap between the competences, which could explain why the interpersonal competence did not receive overt attention (e.g., pedagogical competence for supporting individual learners). However, we would contend that instruction for supporting individual learners and their identities in the CLIL classroom should be addressed in its own right. Future surveys of teacher needs should look to interrogate this competence more explicitly, and professional development should incorporate modules specifically targeting interpersonal competence.

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Limitations

When considering this research, several limitations should be noted. First, despite a thorough search procedure, there may be studies not included in the current systematic review. We cannot discount that other studies may not have been indexed in the searched databases and, thus, inadvertently left out of this study. Second, we only included studies that were written in English. We consider it very likely that research exists on CLIL teachers' needs and professional development in other languages. Thus, we would encourage future reviews to synthesize the body of work in other languages and compare the findings with our own.

Conclusion

Overall, the current literature on CLIL teachers provides a general, albeit incomplete, picture of teachers' self-reported needs and professional development. It is recommended that future research be based on a framework, such as the one provided by Pérez Cañado (2018), to provide a complete picture across all competences. Such an approach would provide the needed information for teacher trainers globally to understand the needs of teachers. Further, there is substantial room for growth in professional development, though recent volumes (i.e., Cammarata & Ó Ceallaigh, 2020; Lo, 2020) suggest that more work in this area is in progress and forthcoming. Our position is that the design of professional development should address CLIL teachers' reported needs, though at the same time not neglect any of the seven competences that could be potential challenges faced by CLIL teachers.

Notes

[1] The terms "integrating content and language in higher education" and "ICLHE" were used to identify studies with preservice teachers preparing for primary or secondary teaching, not to specifically retrieve higher education studies, which were outside the scope of this review.

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