

Glocalization in CLIL: Analyzing the training needs of in-service CLIL teachers in Taiwan and Spain

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Abstract

Glocalization refers to the local adaptation of global trends, and even though it has been extensively studied in economics or sociology, there has been a lower emphasis on this concept in education and specifically in teacher training. The concept of localizing global practice is especially relevant in education given that around the world, pedagogical approaches to language learning such as Content and Language Integrated Learning (CLIL) and English as a Lingua Franca (ELF) have gained popularity and influence. The current paper examines beliefs, attitudes, and training needs of in-service bilingual education teachers from two contexts: Taiwan and Andalusia (Spain). To this avail, a common set of questions was developed and made available on an online questionnaire. 244 teachers participated in the study, 158 from Taiwan and 86 from Spain. All compiled data have been analyzed quantitatively using the constant comparative model. Results indicate that CLIL teachers have considerable methodological and linguistic needs. Teachers, even with different nationalities, teaching specialties (content or language teaching), bilingual teaching experience, all expressed training needs for bilingual teaching. Notably, while all teachers indicated a metalinguistic identity aligned with ELF, teachers from Andalusia expressed a higher need for linguistic training than the Taiwanese counterparts and put language learning effectiveness prior to content knowledge when assessing bilingual learning effectiveness. Conversely, bilingual teachers in Taiwan valued content training for themselves and learning assessment in content knowledge and skills for learners. The present study concludes with identifying different training needs in each context and thus supports the notion of glocalizing CLIL teacher training to optimize the results.

Keywords: CLIL, ELF, glocalization, teacher education, Taiwan, Spain

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1. Introduction

Globalization forces and the internationalization of education have brought about the development of content and language integrated learning (CLIL) programs across the globe (Coyle, 2007; Mehisto, Marsh, & Frigols, 2008). Often times, the language of instruction in CLIL programs is English (Lasagabaster & Sierra, 2010). This goes in line with a sociolinguistic reality that is sometimes overlooked in CLIL research literature, most interactions in extramural English today take place among international users of English, rather than with native speakers. That is, when English is used outside the classroom, it is mostly spoken by international users, as a *lingua franca*, and it is this ELF perspective in CLIL that is sometimes missing. It is difficult to establish how many people use English around the world, but experts estimate that non-native speakers of English outnumber native speakers in a 5:1 ratio and this tendency is going to continue well into the future (Crystal, 2016; Eberhard, Simons & Fennig, 2019). This implies that the use of English as a lingua franca (ELF), that is, communication conducted in English among international users (Cogo & Dewey, 2012), ELF research and ELF-aware Pedagogy, should be taken into account when studying and discussing CLIL. ELF-aware teacher training programs, such as the ENRICH project, develop ELT practitioners' metalinguistic awareness, propose strategies for teaching multilingual learners from migrant backgrounds, and develop trainees' innovative language teaching practices (Lopriore 2021; Sifakis 2018). In this line, Glocalization, or the local adaptation of global trends, allows for the contrastive analysis of geographically dispersed contexts such as Taiwan and Spain with regards to both CLIL and ELF.

Several scholars have pointed out to the common pedagogical issues that emerge with the implementation of CLIL programs (Ball, 2020; Lyster & Ballinger, 2011) despite the diverse geographical, linguistic, and educational contexts (e.g. primary, secondary and higher education) where CLIL is implemented today. One of the most prominent pedagogical issues is the need for teacher training: "the call for increased professional development is urgent

because the odds are such that most teachers working in CBLT (content-based language teaching) contexts have been trained to teach either language or a non-language subject area, but not both” (Lyster & Ballinger, 2011, 285). In this light, while CLIL teacher training is best designed within general CLIL parameters, at the same time it should be flexible enough to adapt to specific local, and educational demands (Ball, 2020). On top of that, professional development and teacher training have become central to ELF-aware Pedagogy (for an overview see the publications derived from the ENRICH Erasmus+ project coordinated by Nicos Sifakis, 2018). Consequently, there needs to be a paradigm shift in English Language teaching (ELT) and training, particularly in contexts where English is learned along with content, such as in Taiwan or Spain. This glocal (global and local) adaptation in teacher training and professional development programs targeting CLIL practitioners, needs to incorporate recent ELF research discoveries and it has to target teachers’ linguistic and methodological needs.

The current research presented here examines in-service CLIL teachers’ needs as a preliminary phase prior to the design of a teacher training program that can adequately accommodate the two complementary methodological frameworks discussed above, namely CLIL and ELF. This research was carried out in two distant contexts: Taiwan and Andalusia (Spain), two areas where English is a highly influential language, but it does not have an official or co-official status.

The two jurisdictions also share similar language policies, scale of primary and junior high school implementation, and bilingual education requirement. Both Andalusia and Taiwan propose a similar educational change in all levels of instruction (primary, secondary and tertiary) by introducing equivalent CLIL models and EMI programs. In terms of scale, as of 2020, the number of bilingual education primary and secondary schools in Andalusia was 1076 (Table 2), whereas in 2021 in Taiwan, the number of schools with bilingual programs reached 1000

(Hsu, 2021).

The two jurisdictions also share similar bilingual education requirements (see Section 3 for more details). For instance, to qualify as bilingual schools, at least one-third of their classes should be taught in L2. For certification, bilingual teachers should achieve a CEFR B2 level in English. In addition, both countries adopt CLIL in their bilingual education programs. It is for these similarities that there has been a close academic tie between the two countries, as many notable CLIL scholars in Spain, (e.g. Elisabet Pladevall Ballester, Ana Linares, Inmaculada Pineda), have visited Taiwan and shared implementation experience with Taiwanese teachers at academic conferences and teacher training workshops.

To fulfill the purpose of establishing in-service teachers' needs, a common set of questions was developed and made available on an online questionnaire. 243 teachers participated in the study, 157 from Taiwan and 86 from Spain. All compiled data have been analyzed quantitatively using the constant comparative model.

Our main goal was to identify linguistic and methodological areas which CLIL teachers are most in need, so that teacher education providers can develop an effective program. To that end, the following research questions will be explored:

1. What are the differences and similarities between Taiwanese and Andalusian CLIL teachers in terms of needs?
2. What are the differences and similarities between teachers of linguistic and content background in terms of needs?
3. Are CLIL teachers' attitudes towards language in line with ELF research? Are there any misconceptions that should be addressed?

2. Glocalization and CLIL

The local adaptation of international educational approaches such as CLIL and ELF-

aware pedagogy can bring about methodological changes that empower the stakeholders involved in the process. As Patel and Lynch argue, “glocalization can arrest the impact of local and global socio-economic and political concerns through dialogue and action, thereby creating an exceptional and powerful learning experience for local and global learning communities” (2013, p. 223). Glocalized pedagogical ownership, that is, adapting existing (CLIL) pedagogies such as task-based learning to local learning and linguistic environments to better address learners’ needs is something that both CLIL and ELF researchers are calling for (San Isidro & Lasagabaster, 2020; Sifakis, 2018). By implementing glocalized teaching practices, CLIL teachers are empowered to use culturally and linguistically marked strategies to better prepare learners to interact successfully in the world. As Tsou aptly argues, “educators around the world are beginning to recognize that globalization is influencing local educational practices and are preparing to address the consequence of such an evolution” (Tsou, 2015, p. 54). The best preparation for this is through teacher training.

2.1 Definitions of CLIL and related terms

Before moving on to the description of the context of our research and the discussion of our results, it is important to provide a number of definitions that are essential when discussing CLIL and bilingual or multilingual education. Content and language integrated learning (CLIL) has been defined as a “dual focused educational approach in which an additional language is used for the learning and teaching of both content and language” (Coyle, Hood, and Marsh, 2010, p. 1). Over the past two decades, CLIL has grown globally in importance and in scope, this is particularly true for Europe, where it has flourished supported by EU policies such as the CLIL Matrix (<http://archive.ecml.at/mtp2/CLILmatrix/EN/qMain.html>) and the European Framework for CLIL Teacher Education (EFCT–<http://clil-cdecml.at>), and by national and regional regulations such as the Order of 28th June 2011 regulating Bilingual Education in

Andalusia¹, Spain. In Asia, CLIL is quickly gaining momentum with the development and implementation of different top-down policies and projects such as bilingual STEM programs in Thailand or Singapore (Dixon, 2005; Liu, 2019) and bottom-up initiatives such as in Taiwan (MOE, 2018).

Despite differences in educational policy, methodological aim or implementation, CLIL around the world, as several scholars have pointed out (Dalton-Puffer et al., 2014), shares three common features, namely: (1) CLIL languages are mostly major or minor *linguae francae*; (2) CLIL does not happen instead of foreign language teaching, but alongside it; and, (3) CLIL is timetabled as subject matter lessons (Dalton-Puffer et al., 2014; Kampen et al., 2020). These features have specific implications on teachers' roles and their pedagogical and linguistic needs.

2.2 Training needs of in-service CLIL teachers

Given the integrated nature of CLIL, teachers are responsible for content and language teaching, and in the process they help students to communicate such content knowledge in subject-specific language in an L2. The dual-nature approach differs from how teachers are normally trained and expected to perform, which tends to be more subject-specific and specialized. In-service teachers who participate in CLIL need to adopt a new mindset and be prepared to address two types of challenges: psychological and pedagogical (Lo, 2020, p. 21). The former involves teachers' beliefs and attitudes toward CLIL. Teachers' understanding of the rationale and theories of CLIL, along with their adherence to the dual roles (i.e. content and language teaching) which they are expected to perform, are crucial to the success of implementation. The second type of challenges is concerned with how a CLIL teacher designs and implements CLIL lessons. To prepare for this challenging task, Lo (2020) identified four training areas: (1) understanding of the CLIL approach and related theories; (2) pedagogical

¹ Orden del 28 de junio de 2011, por la que se regula la enseñanza bilingüe en los centros docentes de la Comunidad Autónoma de Andalucía.

knowledge about teaching and integrating language and content; (3) curriculum development of CLIL lessons; (4) intercultural learning (p. 18). The first area helps prepare CLIL teachers in the psychological aspect, whereas the other three areas equip teachers with the knowledge and skills they need for CLIL teaching.

2.3 ELF perspective and training of CLIL teachers

Several authors have identified a correlation between teachers' attitudes, beliefs (Dewey & Pineda 2020; Grazi 2015; Lopriore 2016) and self-identifications or metalinguistic identities (Llurda 2016; Jenkins et al. 2018) with the choices they make when teaching. By asking pre-service ELT practitioners to self-identify through different labels on a Likert scale, Dewey & Pineda (2020) could establish that multilingual teachers and those with a multicultural background were more inclined to also adhere to statements that would connect their understanding of ELF with pedagogic preferences. The current research tries to replicate previous studies (Dewey & Pineda, 2020; Grazi, 2015; Prodromou, 2003) by repurposing several of their questions in our survey and addressing them to in-service CLIL teachers in Andalusia and Taiwan. For instance, the term successful users of English used in our Survey Question 5 was from earlier studies (Grazi, 2015; Prodromou, 2003)

As English is gradually used by more people as a common language for international communication, ELT researchers have suggested the importance of ELF awareness in teacher education (McDougald, 2015; Sifakis, 2019; Wach & Monroy, 2019). The topic of ELF awareness is equally important for CLIL teachers in the EFL context. Their viewpoints will affect how language is taught and, more importantly, how they model as ELF users to their learners. According to Sifakis (2019), ELF training should highlight three topics: awareness of language and language use in the ELF context; awareness of instructional practice to facilitate ELF use; and awareness of learning from the ELF perspective (p. 291). The aim of the training is to update teachers' beliefs and attitudes, which will in turn lead to the development of ELF-

informed curriculum design, policies, and assessment tools that are relevant and appropriate for the local teaching and learning context.

3. Context: Andalusia & Taiwan

Andalusia is a region in the south of Spain that has autonomous competence with regards to education. This means that regional authorities, not the national government, are in charge of educational and linguistic policies to be implemented at primary, secondary and tertiary education. Table 1 below shows the progression in the number of schools involved in the *Plan de Fomento del Plurilingüismo* (Educational Plan Fostering Plurilingualism) that in 2005 officially extended the pilot practices in bilingual tuition that tentatively started in 1998. The Order of 28th June 2011 regulating Bilingual Education in Andalusia (Orden del 28 de junio de 2011), establishes that a primary or secondary school can be considered “bilingual” if it fulfills the following requirements: a) at least 30% of content tuition in each educational cycle (primary, secondary or vocational) is taught in an L2; b) the practitioners involved in that 30% of the teaching must have a linguistic accreditation of B2 or above according to the CEFR; c) the methodological standpoint, as mentioned in previous regulations, should be CLIL. Any educational institution complying with these requirements can apply to become “bilingual”, but it is the prerogative of the regional government to grant it or not.

<Insert table 1 here>

In 2018-19 there were over 400,000 students involved in the different forms of CLIL education in Andalusia and over 7,000 teachers. As shown in Table 2, bilingual schools in Andalusia in 2019-20 offered primary, and secondary education (including vocational training), and they were mostly offering CLIL education in English, but also in French and German. This goes in line with trends in Europe and Asia with English as the preferred language for bilingual education (Lasagabaster & Sierra, 2010).

<Insert table 2 here>

With a more recent history with regards to CLIL than Andalusia, Taiwan started the implementation of its bilingual education program in October 2017. With a clear focus on Content and Language methodology, different pilot institutions adhered to the various stages within the CLIL continuum. As of December, 2020, a total of 458 schools in Taiwan's six major cities have enrolled in the pilot CLIL program (Yu, et al., 2020).

There have been a few recent educational changes in Taiwan that have set the ground for the systematic introduction of bilingual education (BE) in all levels of instruction. The first change was implemented in higher education (HE), where English for Specific Purposes (ESP) courses were offered in several undergraduate and graduate programs along with English-medium instruction (EMI) modules, given the influence of internationalization in HE (Tsou & Kao, 2017). Then, several major Taiwanese cities launched different types of projects to improve the English education at the compulsory levels. The Education Bureau of Tainan City, the context of this study, initiated its own experimental Bilingual Project in 2017. This local policy was the first in the country, which had attracted attention of local and international specialists to observe the implementation and paved the way for the national bilingual education policy (Chen, et al., 2020). In 2018, the Taiwanese Ministry of Education (MOE) announced a national policy implementing bilingual education with a CLIL approach (MOE, 2018). The policy has received popular support, and within three years, bilingual programs have been introduced in more than 1000 or approximately one-third of public schools (Hsu, 2021).

On the surface, Andalusia and Taiwan may seem two removed educational contexts, both geographically and in the level of development of BE, provided that the CLIL program started earlier in Andalusia. We cannot forget the historical bond that Andalusia and Taiwan have shared for over four centuries (for a review see *Taiwan Review*, 1959 or Escalante 1577), with

Andalusians first ever learning about Taiwan in the 16th century and then establishing commercial bonds over time. In terms of language policy and training needs, they are very similar: policy makers in both contexts, as stated in the current legislation (Pons Seguí, 2019; Tsuchiya & Pérez-Murillo, 2019; Chen, et al., 2020) have a clear preference for CLIL over other methodologies. In addition, educational policies in both contexts stress the need for training in both linguistic and methodological skills so that teachers can fully leverage the benefits of combining content and language learning (Lorenzo, 2019).

4. Method

This is a cross-sectional study in which we compare the training needs of two in-service teacher cohorts, which share a global adaptation of the implementation of CLIL but come from two contexts where extramural English is used as a *lingua franca*, particularly understanding that extramural use of English among children and teenagers today is mostly done on virtual spaces (for a review and definition of Virtual English as a lingua franca, VELF, see Bosso, 2021).

4.1. Participants

In this study, data were collected from teachers in Taiwan (N=158) and Andalusia (N=86). The profile of these participants was summarized in Table 3. The informants included teachers with different specialties and bilingual teaching experience. Participants from Taiwan consist of approximately half language and half content teachers (53% vs 47%). Informants from Spain were mostly content teachers (77%), which approximates the rate of content teachers involved in CLIL in Andalusia. In terms of experience, more than 80% of teachers in Taiwan had less than 3 years of bilingual teaching experience, whereas close to 60% of the teachers from Andalusia had taught CLIL for more than 3 years.

The Taiwanese respondents are representative of the whole CLIL teacher population in

Taiwan. They were among the first in Taiwan to receive credited programs endorsed by the Ministry of Education. The percentage of Taiwanese content teachers in the survey is small (less than 1 percent) compared to the content teachers in general. At the time of the survey, the bilingual education program in Taiwan was at the pilot stage, and the pilot programs were mostly supported by English teachers who crossed over to teach content in bilingual elementary classrooms. This explains why the percentage of Taiwanese language teachers is higher than that of content teachers in Taiwan.

<Insert table 3 here>

4.2. The instrument

This research was carried out by an online survey. There are two parts of questions in this survey. In Part 1, there are 7 questions about demographic and teaching experience of the teachers. Part 2 includes 8 questions related to bilingual education; they are the key knowledge for bilingual teachers gathering from previous studies (Ball, 2009; Coyle, et al., 2010; Mehisto, et al., 2008) about: the importance of interdisciplinary collaboration, training needs for bilingual teaching, attitudes toward English as a lingua franca, identification of own language proficiency, linguistic training needs in English, and issues regarding bilingual learning assessment. In part 2, Question 3 and Question 7 are on a 4-point Likert scale and all the other 5 questions are on a 5-point Likert Scale. The 4-point gradient for Q3 and Q7 evaluate usefulness and importance respectively, and the other questions or statements offer more elaborate options this is why two different gradients were selected. To better understand in-service teachers' needs, the survey encouraged the respondents to share their views and questions in Question 8. Data show that 58 teachers in Taiwan and 23 teachers from Spain provided their input. The responses received include teachers' view on the national policy, concerns of their own English abilities, and the need for professional development through training or classroom observation. The survey questions and statements are listed on Appendix

1.

4.3. Procedures for data collection

The online survey was distributed to the bilingual teachers during the summer of 2020 for two weeks. Participants were contacted through the local education bureaus and were invited to participate in the study voluntarily. ANOVA and t-test were used to analyze the data statistically with (SPSS) 17.0 for Windows. Outliers were removed depending on the formulae from the paper suggestion (Hoaglin & Iglewicz, 1987). The formulae use quartile (Q) and 2.2 as multiplier to determine the range of normal distribution. Main factors include the participants' nationality, type of teachers (linguistic or content), and bilingual teaching experience. While the survey included questions about bilingual experience in years, because no statistical significant differences were found, those results are not discussed here.

4. Results

This section discusses the results from Part II of the survey, including the effect of nationality, teacher profile, and bilingual teaching experience on each question. The study originally was designed to examine three factors: 1) nationality (Taiwan vs Spain), 2) type of teachers (language vs content), and 3) year of experience (1-3 years vs more). Preliminary analysis shows no significance for the factor of seniority for all questions. Thus the overall data table (Appendix 2) only presents means and standard deviation of nationality and teacher profile. Detailed statistical results for Questions 1 to 7 are attached in Appendix 2. The following briefly discusses the results for each of the 7 questions. Due to word count limitation, additional data tables are included only for items with statistical significance (Items 1, 6, and 7). Data from Question 8, an open question for comments, is included in the Discussion section to support the statistical results.

5.1 Key knowledge

ANOVA analysis for Q1 shows significant differences for the nationality and teacher profile variables, but without interaction effects (Table Q1). Taiwanese teachers as a group rated key knowledge (e.g. bilingual education, English as a lingua franca, etc.) more important than Spanish teachers (Taiwan $M=4.50$; Spain $M=4.27$). In addition, language teachers as a group assigned a higher importance to understanding key knowledge than content teachers (Language $M=4.53$; content $M=4.34$, Table Q1a).

National differences are found in 7 topics. Taiwanese teachers considered the following topics as more salient. Top four are Q1-4 Theories and practices about translingual pedagogy ($36.30/<.001^{***}$); Q1-8 Course design for competence-based bilingual education ($13.15/<.001^{***}$); Q1-5 Instructional English; Q1-7 English for classroom management ($8.17/.005^{**}$); Q1-11 Course evaluation for competence-based bilingual education ($7.67/.006^{**}$) (Appendix 2).

Analysis also shows that language teachers from both countries assigned higher importance than content teachers to the following 6 topics. The top two are Survey Question 1-1 Definition and concept of bilingual education ($15.38/<.001^{***}$) and Question 1-8 Course design for competence-based bilingual education ($8.23/.004^{**}$). It is important to notice that all of these areas obtained scores higher than 3.5 for all group variables, this leads us to think that bilingual teachers involved in this research are highly interested in learning about these issues regarding bilingual education.

<Insert table Q1 here>

<Insert table Q1a here>

5.2 Teacher collaboration and team teaching

The importance of collaboration and team teaching shows no significant differences or interaction effects among nationality or types of teachers. All teachers consider the following types of collaboration to be more important (means>4.00). Top two topics, with means greater than 4.5, are Q2-1 interdisciplinary teacher collaboration and Q2-2 team teaching with content/language teachers,

5.3 Methodological training needs

ANOVA analysis for Q3 shows no significant differences among the main factors or interaction effects. However, several training topics received higher mean scores than others. (Appendix 2). The top 3 training areas are Q3-1 teaching strategies in English (methodologies), Q3-2 digital resources for teaching in English, and Q3-7 answering questions (Appendix 2). Although no statistical difference was found, we discuss the findings in the Discussion (Sections 6.1 and 6.2) to answer Research Questions 1 and 2.

5.4 Attitudes towards ELF

ANOVA analysis for Q4 shows no significant differences among the main factors or interaction effects. The overall data shows that Taiwanese and Spanish teachers, regardless language or content, indicated similar attitudes toward ELF. All four groups of teachers agreed to the importance of the following. To communicate effectively in English, they need to be exposed to successful native and non-native users of English (Q4-2, means>4.5), and the native speaker models (Q4-1, means>4.32). Similarly, all four groups of teachers indicated that they tried to communicate clearly but not necessarily with a British or American accent (Q4-4, means>4.42).

5.5 Self-perceived English proficiency

In this section, participants rated themselves according to the applicability of four statuses: 1=noVICE, 2=expert, 3=successful user, 4=international speaker. ANOVA analysis was conducted for each item. Results show that the Spanish teachers as a group reported a higher score than the Taiwanese group in the categories of *experts* (Spain M=3.27 vs Taiwan M=2.45,

F=28.37***), *successful users* (M=4.01 vs M=3.03, F=46.67***), and *international speakers* (M=3.73 vs M=2.97, F=20.77***). The overall language teachers indicated a higher status than the content teachers in the categories of *experts* (Language M=3.04 vs Content M=2.51, F=11.71**), *successful users* (M=3.64 vs M=3.17, F=10.03**), and *international speakers* (M=3.62 vs M=2.96, F=16.13***). The findings are discussed in Section 6.3 to answer Research Question 3.

5.6 Language training needs

ANOVA analysis for Q6 shows a significant difference in nationality but no interaction effects (Table Q6). The Spanish teachers as a group reported a higher need for English training than the Taiwan group (Table Q6a, M=4.38; Taiwan M=4.15, F=7.01**). The topics with statistical significance include Q6-1 Pronunciation of international English (F=32.96***) and Q6-5 English fluency (F=7.47**).

The content teachers as a group also reported a higher need for English training than the language group (Q6a; Content M=4.35, Language M=4.09, F=8.04**). The topics with statistical significance include Q6-1 Pronunciation of international English (F=13.39***), 6-2 English as a medium of instruction (F=7.73**), 6-3 Interactive classroom English (F=5.12*), and Q6-5 English fluency (F=4.72*). The findings are discussed in Sections 6.1 and 6.2 to answer Research Questions 1 and 2.

<Insert Table Q6 here>

<Insert Table Q6a here>

5.7 Bilingual education performance assessment variables

Statistical analysis for Q7 shows a significant difference in nationality and type of teachers (Appendix 2). The Taiwanese group indicated higher importance of Q7-1 *disciplinary knowledge* than the Spanish (F=122.51***), whereas the Spanish teachers considered 7-2

English grammar knowledge ($F=50.74^{***}$) and Q7-3 *English vocabulary* ($F=21.60^{***}$) more important (Appendix 2). There is also a significant difference between the language and content teachers as a group. The content teachers rated Q7-3 *English vocabulary* as more important in assessment ($F=9.52^{**}$), whereas the language teachers rated 7-4 *Performance assessment in English* as more important ($F=4.50^*$).

<Insert table Q7 here>

6. Discussion

6.1 Beliefs and training needs of Taiwanese and Andalusian teachers

The first research question compares the training needs reported by teachers from the two countries. In general, there was no significant difference between their views on collaboration (Q2), CLIL training needs (Q3), and attitudes toward ELF (Q4).

The survey results also indicate several differences between teachers from the two countries (Q1, 5, 6, and 7). While all teachers rated key knowledge to be very important (the means averages are all above 4), Taiwanese teachers as a group rated key knowledge higher than Spanish teachers. This difference, which is statistically significant, is possibly because more than 83% of the Taiwanese respondents had fewer than 3 years of CLIL experience, while 49% of Spanish CLIL teachers had taught CLIL for more than 3 years. As reported in this paper, the pilot programs in Andalusia started in 1998, while similar programs in Taiwan were not launched until 2018.

A notable difference between the teachers of the two contexts is related to their self-reporting on English language proficiency (Q5). The results show that more Spanish teachers identified themselves as *experts/successful users* and *international speakers*; in contrast, Taiwanese teachers reported a lower self-perception of their English status. A possible explanation for Taiwanese teachers' lower self-perception could be attributed to that, unlike residents of the EU, there were fewer opportunities to use English with foreigners in Taiwan.

Another reason for the result may be because teachers in Taiwan were not as aware of ELF. Many Taiwanese still subscribe to monolingual ideology, where, instead of ELF, the British or American version of English is used as the standards. Therefore, self-assessment was based on comparing themselves with native speakers as opposed to successful international users of English.

While participants from the Spanish group were more experienced and reported higher self-perception in English proficiency, most of them assigned a higher value to language training (Table Q6-2). The results may suggest more rigorous policy requirements or parental expectations in Spain, where bilingual teachers had to demonstrate higher English proficiency to teach CLIL. The data may also suggest that CLIL programs in Taiwan are taught by more language teachers who are already language specialists.

Moreover, the survey data suggest further differences between participants from the two contexts regarding assessment. Taiwanese teachers assigned the highest priority to assessing content-specific disciplinary knowledge, whereas teachers in Spain considered vocabulary and performance assessment in English to be more important (Q7). It is possible to conclude that programs in Taiwan are more content-driven, highlighting the fact that parents and school administrators have demanded that content learning should not be compromised in bilingual education.

In contrast, programs in Spain tend to lean toward the language end of the CLIL spectrum, with the means for *English vocabulary*, and *performance assessment in English* higher than the other two topic areas. It is worth mentioning that the average responses from the Spanish group for all assessment areas are below 3. The data seem to imply that none of the assessment items are important to the Spanish teachers. Follow-up studies should be conducted to understand why.

Several implications could be drawn from the findings regarding the training needs across

different context. Firstly, each CLIL context has its own unique teacher profiles and the corresponding training needs, which supports that globalization of CLIL is crucial for successful implementation. For instance, teacher trainers in Taiwan need to be aware of the lower self-perception reported by the local bilingual teachers. Training programs should focus on raising the awareness of ELF so that local CLIL teachers do not assess themselves with English proficiency designed according to native speaker benchmarks, and they can be empowered to become more successful users and international speakers.

Equally important, continuous improvement of Spanish teachers' English skills such as pronunciation, English as a medium of instruction, interactive classroom English, classroom management English, and English fluency, is crucial.

6.2 Beliefs and training needs of content and language teachers

The second research question of the current study compares the training needs reported by teachers of different specialties. In general, there was no significant difference between their views of collaboration (Q2), CLIL training needs (Q3), ELF (Q4), English training needs (Q6), and assessment (Q7). Both groups shared similar views in the above topic areas.

Data from Questions 1 and 5 suggest two main differences of statistical significance between language and content teachers. Firstly, language teachers in the study considered key knowledge and CLIL skills to be more important than was reported by content teachers. Even though the mean averages for both types of teachers are high (both above 4.3), the difference is statistically significant (Table 1-1, $p=001$). Language teachers as a group assigned higher importance than content teachers in 6 out of the 11 topics. The results may reflect that more language teachers in this study were from Taiwan and had fewer years of CLIL experience.

The second difference between the two groups is that language teachers in both countries reported being more confident users of English than the content group. The implications for the

findings are several. Teacher education providers may conduct separate training for language and content teachers so that each group could develop additional specialized skills. For instance, content teachers will benefit from more training in English skills and opportunities to interact in international communication. Given that both types of teachers agree to the importance of interdisciplinary collaboration, it is also desirable to conduct joint training so teachers of different specialties could develop a community to facilitate collaboration. The joint training may be more sustainable because the community could continue to support the members after the training is complete. The cross-disciplinary collaboration is aligned with Lo (2020), which calls for professional development through cross-curricular cooperation.

6.3 CLIL teachers' attitudes and opinions towards language

As discussed, teachers' beliefs and attitudes toward ELF are crucial to the success of bilingual education. Our study found encouraging results regarding teachers' awareness and attitudes toward ELF. Responses to Survey Q4 indicate that all teachers, regardless of nationalities or specialties, demonstrated attitudes and understanding of language use in line with ELF research. They believed that exposure to native speakers and successful users of English is equally important. The result suggests that CLIL teachers in this survey did not privilege native speakers over ELF speakers. Equally important, while most participants reported trying to imitate native speaker accents and expressions, they agreed that a British or American accent is not a prerequisite to effective communication. The bilingual teachers' awareness and attitudes toward ELF are encouraging. They are likely to become good role models to their students. This means that both teachers and learners will have a more positive identity as users of English and they will develop communicative skills to facilitate international communication. Andalusian teachers pointed towards the need for horizontal coordination so that CLIL content teachers set up similar strategies and coordinate "making and managing

interactive content” (#11, #15).

Comments in Q8 suggest that Taiwanese teachers are also interested in both general and content-specific language abilities. A teacher indicated that an ideal teacher is one who is proficient at English and is able to teach content knowledge in proper English. However, the response also shows that the language requirement for content bilingual teachers should be lower than those for English teachers. Another teacher commented on the importance of teaching content-specific language and to adjust learners’ language demands to a level suitable to their age.

Importantly enough identifying participants’ metalinguistic self-identifications might correlate with their adherence to an ELF-compatible perception of their training needs or with a more traditional view of language and bilingual education. For example, respondent #21 from Andalusia, a primary school Science teacher self identifies as an international speaker (score 5 on a 1-5 scale) and aptly argues in favor of the use of ELF in the classroom (see below). Whereas participant #45, a high school Philosophy teacher, who does not necessarily self-identify as a SUE (score 3 on a 1-5 scale), displays a more traditional view on language and bilingual education, based on native-speaker norms: “The most useful way of reaching a high teaching performance for bilingual teachers (at least in High Schools) is the possibility of following courses in native countries and reproducing the same environment that we have to deal with in real classes.” Such a statement proves to be contradictory, given that “courses in native countries” do not necessarily “reproduce” the linguistic and educational context of Andalusia.

On CLIL teachers’ metalinguistic identity, we found that CLIL teachers in Spain are more confident in their English proficiency than the Taiwanese teachers, and that more language teachers as a group perceived themselves as *successful users of English* than the content teachers. According to the responses to Q6, even though the Spanish teachers indicated a higher

self-identification of their English language proficiency than the Taiwanese participants, they still assigned a greater importance to language training. For instance, according to Q8 responses, one teacher indicated that English pronunciation and speaking are most important (R#42). One comment provided by a Spanish teacher indicates the following: “I would like to have more opportunities to learn English as a teacher, because I like English and I would like to be an expert in that area in order to teach better” (R#2). Another teacher indicated that they would like to engage in “fluent communication on a daily basis” with their colleagues at the school (Respondent #34).

Possible reasons may include either policy requirements or self-motivation. Regardless, one implication is that even for experienced CLIL teachers who consider themselves as successful ELF users and even when indicating that “fluency is more important than accuracy” (Respondent #21), there is still a need for continuous language training. The findings are important to teacher trainers so that continuous and advanced linguistic support is available to not just for novice but also for experienced CLIL in-service teachers.

7. Conclusions

7.1 Globalizing CLIL teacher education

The present study compares the training needs and viewpoints of CLIL in-service teachers in Andalusia (Spain), and Taiwan. The different teacher profiles have revealed different training needs. Because Andalusia has been implementing CLIL methodology since 1998, most teachers are experienced content specialists who reported a higher English status for themselves. Andalusia’s longer history with CLIL means that there are more content teachers who have been trained to support CLIL. At the same time, the local authorities in Andalusia have imposed more rigorous requirements for CLIL teachers and learners, as discussed above. Thus, participants in this study reported a need for more linguistic training for themselves and assigned a higher priority to language assessment.

In contrast, Taiwan first launched its pilot CLIL programs in 2018 and therefore, in this inception phase, most schools have relied on language teachers, who are comfortable teaching in English, to support CLIL. Taiwanese participants in this study, most of whom had less than 3 years of CLIL experience, have expressed a greater need for acquiring CLIL knowledge and skills to meet the job requirements. In addition, Taiwan's language and content teachers reported a lower status as successful users of English and international speakers. It is possible to conclude that their less favorable self-assessment stems from Taiwan's being an island with fewer opportunities to interact with foreigners, and the influence of American English ideals in English education, which may lead to lower self-confidence. For learning assessment, Taiwanese teachers have prioritized content over language learning. This finding suggests that CLIL programs in Taiwan tend to be more content-centric. As discussed in Section 5.1, a primary reason for this focus is parents' and school administrators' expectations that content learning is not compromised. The findings from this study support the need to identify specificity of a learning context and globalize CLIL practice accordingly.

7.2 Pedagogical implications

The findings of this study have implications for contexts where bilingual education has had a longer history, as well as those contexts launching new CLIL programs. We found that newly launched programs, like Taiwan, tend to focus more on content learning. Language teachers could support new CLIL programs because implementation in Taiwan usually begins with lower grade students. Therefore, recommendations for such CLIL contexts would be to provide more CLIL training to in-service language teachers. Meanwhile, awareness training in ELF is crucial so that local bilingual teachers are empowered and could contribute to bilingual teaching with confidence. In addition, more effort should be made to recruit and train content teachers so trained CLIL teachers with content background are available when young CLIL

learners enter higher grade levels.

As a country gains more CLIL experience, more rigorous language requirements for teachers and learners could be expected. Recommendations for more experienced contexts like Spain are to upgrade the quality of language teaching and learning (after the initial focus on content learning), and to provide more language training to teachers and learners. Equally important, the more experienced countries are encouraged to network and share their experience with others interested in launching CLIL programs. Through sharing of ideas, countries can identify both common and unique issues, and implement CLIL according to the specificity of their contexts. In other words, glocalization of CLIL will ensure and sustain successful implementation.

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Appendix 1.
The survey: Questions and Indices

Question
Part I
Q1. Your nationality?
Q2. Which grade do you teach?
Q3. Are you a content teacher or language teacher?
Q4. Please indicate the content area you teach.
Q5. Have you ever implemented bilingual instruction in your school?
Q6. How long have you been practicing bilingual instruction?
Part II
Q1 to Q7. See Appendix 2
Q8. Other comments

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Appendix 2
Statistical Results for Questions 1 to 7

No.	Question/Index	Taiwan		Spain		Nationality F	Types of teachers F
		Language Teacher M(SD)	Content Teacher M(SD)	Language Teacher M(SD)	Content Teacher M(SD)		
Q1	Please evaluate the importance of the following key elements for bilingual teacher.	4.60 (0.41)	4.39 (0.44)	4.27 (0.53)	4.28 (0.59)	11.44* *	9.51* *
1-1	Definition and concept of bilingual education	4.65 (0.55)	4.34 (0.73)	4.60 (0.50)	4.25 (0.94)	3.07	13.63 ***
1-2	Current status of bilingual education around the globe	4.27 (0.81)	4.04 (0.67)	3.95 (1.00)	3.89 (1.01)	5.11*	4.75*
1-3	Concept of English as lingua franca	4.51 (0.75)	4.27 (0.78)	3.90 (1.02)	4.22 (0.79)	5.59*	1.99
1-4	Theories and practices about Translingual pedagogy	4.61 (0.60)	4.41 (0.72)	3.85 (0.88)	3.74 (1.09)	46.54* **	10.69 **
1-5	Instructional English	4.55 (0.65)	4.38 (0.68)	4.05 (0.95)	4.17 (0.95)	10.00* *	2.90
1-6	English for classroom	4.64 (0.51)	4.41 (0.66)	4.50 (0.83)	4.54 (0.69)	0.00	3.22
1-7	English for class management	4.60 (0.52)	4.42 (0.70)	4.40 (0.82)	4.23 (1.01)	5.86* *	5.47* *
1-8	Course design for competence-based bilingual education	4.71 (0.51)	4.53 (0.62)	4.30 (0.73)	4.20 (0.98)	17.34* **	7.48* *
1-9	Task design for competence-based bilingual education	4.69 (0.51)	4.54 (0.60)	4.50 (0.69)	4.45 (0.82)	3.20	3.37
1-10	Material development for competence-based bilingual education	4.64 (0.57)	4.51 (0.63)	4.70 (0.57)	4.53 (0.84)	0.01	2.34

1-11	Course evaluation for competence-based bilingual education	4.61 (0.60)	4.45 (0.69)	4.25 (0.64)	4.25 (0.85)	8.77**	3.94*
Q2	Do you consider following practices important in bilingual education? (interdisciplinary)	4.27 (0.54)	4.29 (0.54)	4.32 (0.56)	4.17 (0.57)	1.02	0.36
2-1	Interdisciplinary teacher collaboration	4.68 (0.50)	4.65 (0.51)	4.50 (0.76)	4.49 (0.69)	4.81*	0.83
2-2	Team teaching with content/language teachers	4.38 (0.71)	4.51 (0.75)	4.60 (0.50)	4.36 (0.87)	0.06	0.04
2-3	Team teaching with home room teachers	3.86 (0.95)	3.74 (0.89)	4.15 (0.75)	3.95 (0.85)	2.72	0.37
2-4	Team teaching with foreign teachers	4.01 (0.84)	4.23 (0.85)	4.35 (0.81)	4.30 (0.72)	3.36	3.16
2-5	Team teaching with other local teachers	4.45 (0.68)	4.30 (0.68)	3.90 (0.85)	3.56 (0.90)	52.35**	13.97
2-6	Teacher collaboration with foreign teachers	4.26 (0.79)	4.32 (0.72)	4.40 (0.75)	4.38 (0.68)	0.98	0.46
Q3	Please select the option that best illustrates your training needs. (bilingual needs)	3.46 (0.50)	3.42 (0.47)	3.49 (0.28)	3.43 (0.56)	0.00	0.52
3-1	Teaching Strategies in English (methodologies)	3.68 (0.47)	3.53 (0.58)	3.75 (0.44)	3.47 (0.67)	0.90	6.92*

3-2	Digital resources that you can use when teaching in English	3.55 (0.59)	3.38 (0.70)	3.70 (0.47)	3.64 (0.69)	4.47	0.84
3-3	Tips to structure your syllabus	3.26 (0.75)	3.12 (0.72)	3.15 (0.59)	3.21 (0.87)	0.00	0.60
3-4	Tips to structure your lectures	3.27 (0.83)	3.47 (0.60)	3.15 (0.49)	3.18 (0.84)	3.70	0.78
3-5	Non-linguistic and paralinguistic devices	3.40 (0.70)	3.51 (0.50)	2.95 (1.00)	3.18 (0.86)	11.42*	0.17
3-6	Asking questions and providing feedback	3.50 (0.63)	3.49 (0.60)	3.55 (0.61)	3.52 (0.75)	0.12	0.01
3-7	Answering questions	3.39 (0.62)	3.49 (0.58)	3.60 (0.50)	3.52 (0.75)	1.32	0.66
3-8	Problem solving, advising and consultancy	3.58 (0.56)	3.43 (0.72)	3.50 (0.51)	3.47 (0.64)	0.18	2.07
Q4	Please provide your opinion to the following statements about English. (ELF)	4.26 (0.49)	4.13 (0.53)	4.36 (0.38)	4.12 (0.64)	0.05	4.90*
4-1	To communicate effectively in English, we need to be exposed to Native Speaker models of English.	4.45 (0.59)	4.32 (0.71)	4.60 (0.82)	4.39 (0.72)	0.34	2.11

4-2	To communicate effectively in English, we need to be exposed to Successful Users of English (native and non-native).	4.58 (0.50)	4.51 (0.58)	4.65 (0.67)	4.50 (0.66)	0.04	1.40
4-3	I try to imitate native speaker accents and expressions.	4.30 (0.69)	3.99 (0.82)	4.40 (0.68)	4.22 (0.89)	1.00	4.78
4-4	I try to speak clearly and communicatively but not necessarily with a British or American accent.	4.49 (0.63)	4.42 (0.57)	4.55 (0.69)	4.13 (1.06)	4.85*	4.75
4-5	When I use English with international students and colleagues, I try to be flexible with pronunciation.	3.92 (0.90)	3.84 (0.84)	4.05 (1.00)	3.94 (1.11)	0.45	0.21
4-6	When I use English with international students and colleagues, I try to be flexible with grammar.	3.94 (0.88)	3.80 (0.83)	4.25 (0.64)	3.77 (1.19)	0.01	3.08
4-7	When I use English with international students and colleagues, I try to be flexible with vocabulary.	4.13 (0.80)	4.01 (0.69)	4.05 (0.83)	4.02 (1.01)	0.21	0.87

Q 5	How would you define yourself with regards to English? (English status)	3.34 (0.72)	2.48 (0.79)	3.85 (0.73)	3.59 (0.79)	40.67**	14.295***
5-1	Student/Learner	3.39 (1.21)	3.19 (1.21)	3.65 (1.18)	3.58 (1.22)	3.33	0.20
5-2	Expert	2.94 (1.02)	1.89 (1.13)	3.45 (1.05)	3.21 (1.06)	28.37**	11.71**
5-3	Successful user	3.49 (0.58)	2.05 (1.21)	4.30 (0.80)	3.92 (0.97)	46.67**	10.03**
5-4	International speaker	3.52 (0.96)	2.35 (1.27)	4.00 (0.92)	3.65 (1.28)	20.77**	16.13***
Q 6	Please evaluate the following training that you think are important for bilingual teachers. (English needs)	4.01 (0.73)	4.31 (0.59)	4.45 (0.56)	4.35 (0.56)	7.01**	8.04*
6-1	Pronunciation of international English	3.58 (1.02)	3.96 (0.85)	4.45 (0.61)	4.42 (0.70)	32.96**	13.39***
6-2	English as a medium of instruction	4.06 (0.87)	4.54 (0.60)	4.50 (0.61)	4.30 (0.88)	0.36	7.73*
6-3	Interactive classroom English	4.08 (0.88)	4.50 (0.75)	4.75 (0.64)	4.41 (0.88)	3.47	5.12*
6-4	Classroom management English	4.06 (0.83)	4.39 (0.77)	4.55 (0.69)	4.26 (0.87)	1.00	2.71
6-5	English fluency	4.20 (0.83)	4.34 (0.85)	4.40 (0.68)	4.59 (0.58)	7.47**	4.72*
6-6	English grammar accuracy	4.06 (0.83)	4.11 (0.82)	4.05 (0.95)	4.14 (0.82)	0.09	0.35

Please evaluate the importance of the following items for bilingual learning effectiveness. (bilingual assessment)							
Q 7							
7-1	Disciplinary knowledge	3.55 (0.84)	3.72 (0.69)	1.95 (1.28)	2.27 (1.22)	122.51***	1.80
7-2	English grammar knowledge	1.46 (0.77)	1.49 (0.71)	2.35 (0.93)	2.21 (0.92)	50.74**	2.89
7-3	English vocabulary	2.27 (0.75)	2.43 (0.72)	2.60 (0.60)	2.89 (0.86)	21.60**	9.52*
7-4	Performance assessment in English	2.71 (0.95)	2.36 (1.00)	3.10 (1.29)	2.62 (1.30)	1.50	4.50*

*p<.05 ** p<.01 *** p<.0

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