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**INFLUENTIAL FACTORS IN CLIL
IMPLEMENTATION: AN ACTION PLAN TO
OVERCOME WEAKNESSES IN TEACHER'S
EDUCATION AND TRAINING FOR CLIL**

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ABSTRACT

Content and Language Integrated Learning (CLIL), in which students learn a subject through the medium of a foreign language, is considered by the educational authorities of the EU as a valid approach to teach foreign languages (FL). In Spain, an array of dissimilar CLIL implemented programs and methodologies have been conducted resulting in unattractive outcomes and forcing the creation of palliative measures intended to remediate this situation. This is a state-of-the-art research aimed to identify to what extent the CLIL definition controversy, CLIL programs demands, new teachers' role and CLIL teachers' competence profile, the role of universities, the in-service teachers' training programs, the accreditation model to work in CLIL contexts, the professional development, and the issue of methodological heterogeneity are influencing the outcomes of CLIL. It is done to contribute with a validated instrument that helps CLIL teachers devise protocols and identify the singular needs they require to overcome the factors that influence CLIL outcomes. The results show that a self-evaluation checklist can be used by CLIL teachers themselves to signal their singular needs and guide them to look for solutions. It is concluded that using a self-evaluation checklist can help CLIL teachers to find the best suitable remediation in their teaching practices so as to ensure the best of CLIL approach in all bilingual classrooms.

Key words: pre-service teacher education, in-service teacher training, bilingual education, CLIL teacher competences, self-evaluation, checklist.

Factores influyentes en la implementación de AICLE: Un plan de acción para superar las debilidades de los estudiantes de magisterio y la formación del profesorado en AICLE.

RESUMEN

El Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE), está considerado por las autoridades educativas de la UE como un enfoque válido para la enseñanza de idiomas. En España se ha implementado AICLE de muchas formas dando resultados poco atractivos y forzando la creación de acciones paliativas. En esta investigación—revisión literaria—se ha sondeado cómo el debate sobre la definición AICLE, las demandas de los programas AICLE, el nuevo papel de los profesores y su perfil competencial, las universidades, los programas de formación del profesorado, el modelo de acreditación para trabajar con AICLE, el desarrollo profesional y la heterogeneidad metodológica están influyendo en los resultados de AICLE para contribuir con un instrumento válido que ayude a los profesores del AICLE a identificar los factores que influyen en la implementación de los programas AICLE y sus resultados. Tras la indagación literaria se confirma que una lista de auto-evaluación, utilizada por los propios profesores, puede señalar las necesidades reales para diseñar acciones paliativas eficaces. Se concluye que, usando la lista de auto-evaluación, cada profesor identificará adecuadas soluciones a sus prácticas para extraer lo mejor de la pedagogía AICLE.

Palabras clave: formación inicial del profesorado, formación permanente del profesorado, educación bilingüe, competencias del docente AICLE, auto-evaluación.

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1. INTRODUCTION

Strong efforts have been conducted by the European Union (EU) during the last thirty years for developing social and educational policies fostering the teaching and learning of foreign languages (FLs). Following the recommendations from (European Commission, 1995), country-members of the EU started to include in their curricula two—in many cases three—FLs in primary and secondary education (Eurydice, 2107). To achieve this, new approaches were considered and the European Commission (2003) painstakingly considered CLIL as a validate approach to conquer the ambitious UE's language learning goals. This powerful statement was the conclusion of its *Action Plan 2004—2006 Promoting Language Learning and Linguistic Diversity*. As a result, numerous projects and programs have been created to foster approaches of FL teaching and learning. To name a few: the Common European Framework of References for Languages (CEFRL) by which the level and advancement of FL students' proficiency can be tracked and checked and identify the evolution of the Trans-language in Europe, the Content and Language Integrated Learning project, which introduces CLIL approach in five languages; and the Clil4U project that supports CLIL implementation by producing resources for primary and vocational schools (Custodio-Espinar, 2020).

All these programs have been carried out in Spain thanks to the decentralized legal framework that governs (Megías, 2012), this fact has set Spain as the reference model to be tracked for introducing CLIL pedagogies, becoming one of the leaders in the EU regarding FL teaching and bilingual programs (Coyle et al., 2010; Lasagabaster & Ruiz de Zarobe, 2010). Moreover, the Action Plan 2004—2006 paper stablished that the responsibility to implement the required changes is on the local authorities that are the ones in charge to foster FL policies within their educational curricula (European Commission, 2003), meaning that heterogeneity among the Spanish's autonomous communities have favored the accomplishment of numerous types of bilingual education based on CLIL approaches (Custodio-Espinar, 2020, 2019b; Custodio-Espinar & García-Ramos, 2020b; Megías, 2012; Pavón-Vázquez & Rubio, 2010, Pavón-Vázquez & Ellison, 2013; Pérez-Cañado, 2016a).

In Spain, the Royal Decree 12/126 24th February 2014 regulating primary education basic curriculum and the Royal Decree 1105/2014 26th December 2014 regulating secondary education basic curriculum, introduced new features which allow schools for teaching in a second language (L2) some subjects without modifying the basic aspects of the curricula. Nevertheless, while the legal framework stablishes a mandatory set of protocols and legislative

actions for the whole country, the autonomy of the 17 communities' regional Ministry of Education, and ultimately, the schools themselves, has created an interesting heterogeneity regarding the implementation of CLIL all around Spain (Madrid-Fernández et al., 2019). As argued by Custodio-Espinar and García-Ramos (2020b), this circumstance entails unavoidable changes in CLIL's methodologies and leads to the development of extensive regulations of FL teaching. The same authors stated that it has promoted the creation of an array of national and regional educative and training programs of bilingual education for both pre- and in-service teachers trying to palliate that situation.

Consequently, the whole CLIL approach and the interest for bilingualism have created in Spain a huge demand for qualified teachers to work in CLIL contexts. Indeed, in Spain, CLIL acts as a trigger for changing and updating language standards (Pérez-Cañado, 2016a). In addition, it has forced communities to create protocols to accredit/certify/endorse content and language teacher for working in CLIL contexts (Pavón-Vázquez & Rubio, 2010) focusing almost exclusively on linguistic proficiency (Custodio-Espinar, 2020; Custodio-Espinar & García-Ramos, 2020b). Conversely, research has unveiled that pre- and in-service CLIL teachers perceive a lacuna in their formation regarding CLIL pedagogy and content knowledge (Garijo et al., 2018; Morton, 2016), and revealed as well that they do not have the adequate preparation to attend the required CLIL demands. This is the consequence of teachers not having access to proper education/training on the part of neither from universities nor educational administrations that could equip them to face the innovative demands that CLIL approach asks them to exert (Coyle, 2010; Coyle et al., 2010; Custodio-Espinar, 2019a, 2020; Custodio-Espinar & García-Ramos, 2020b; Pérez-Cañado, 2016a, 2018a, 2018b, 2019).

Additionally, the CLIL formation needs to be addressed from different focus, as explained in Pavón-Vázquez and Rubio (2010), when they remark that CLIL contexts require that content, language, and FL teachers obtain CLIL's content knowledge and methodologies. Meaning that part of that formation should be focusing on the different needs that CLIL teachers may demand to conduct their educative duty successfully. Quite similar is the situation regarding CLIL teachers' competence profile as every competence commands formation at singular levels and roles (Pavón-Vázquez & Rubio, 2010).

In light of this scenario, it goes without saying that the design of programs for educating and training pre- and in-service CLIL teachers is a complex duty that requires painstakingly researching the singular needs of schools' realities, traits of content, language, and FL teachers, their education and training programs, and their experience within CLIL contexts. Recently, scholars as Custodio-Espinar and García-Ramos (2020a, 2020b) have focused their efforts on

finding features to unveil what lies behind the lack of CLIL teachers formation and identify their specific needs devising instruments as CIPMA—whose acronym in Spanish stands for *Cuestionario de Integración de Principios Metodológicos AICLE*—which can be translated as *Questionnaire of Integration of CLIL Methodological Principles*. It is a validated and reliable questionnaire to detect singular needs regarding CLIL teachers' competence to plan CLIL lessons; thus, based on its results, administrations can tailor palliative training programs with accurate objectives that guarantee the effective and successful implementation of bilingual programs based on CLIL.

This lack of impact of the training courses has inspired what this dissertation intends to identify. To do so, a literature review has been conducted investigating the weaknesses that lay behind CLIL teachers' education and in-service training programs. The following factors have been analyzed across this work: CLIL definition controversy; CLIL demands and teachers' competences, CLIL-new role of teachers, in-service teachers training; the teacher's education and the role of universities; the CLIL accreditation model to work in CLIL contexts; professional development, and the issue of methodological heterogeneity. This work is done with the purpose to contribute and suggest a set of steps and possible solutions focusing on CLIL teacher's self-evaluation.

In a point of fact, this dissertation is in the same vein that the European Commission report *On a Renewed EU Agenda for Higher Education* (2017), in which it is stated that educative administrations in Spain shall focus on evaluating CLIL teachers training necessities, faculties of education curricula, and more adequate methods in CLIL teachers accreditation. Additionally, such evaluations exert rigorous and specific deed on research-designing (Pérez-Cañado, 2016a), as well as narrowing the factors that lay behind of ineffective practices and move toward best practices within CLIL pedagogies.

2. OBJECTIVES

This is a theoretical research—state-of-the-art—whose goal is to create an action plan to overcome weaknesses in teacher's education and training for CLIL. Indeed, it is observed that research has experienced a positive evolution (Pérez-Cañado, 2017) that helps to reflect on the CLIL's present situation in Spain, in general, and in CLIL teachers, in particular. This reality has served to reach the following hypothesis: Could a self-evaluation checklist be used as a tool to identify weaknesses in the CLIL learning-teaching processes and remediate the lack of education and training that CLIL teachers have?

In order to find the answer to this postulate and identify clues that help to confirm such hypothesis, this dissertation is exploring by a literary research the factors that influence teachers within CLIL contexts. Thus, the following objectives are proposed to identify:

- To what extend the CLIL definition controversy influences the outcome of CLIL programs (O1).
- To what extend CLIL programs' demands, new teachers' role, and teachers' competence profile influence the outcome of CLIL programs (O2).
- To what extend the role of universities influences the outcome of CLIL programs (O3)
- To what extend in-service teachers training influences the outcome of CLIL programs (O4).
- To what extend the accreditation model to work in CLIL contexts influences the outcome of CLIL programs (O5).
- To what extend the professional development and the issue of methodological heterogeneity influence the outcome of CLIL programs (O6).

Taking parallelism with the words of Wolff (2012), the most simple and desirable solution of that complex equation is by improving teacher education in CLIL. However, these words make it difficult to provide a feasible solution, since they suggest that the responsibility belongs solely to the educational institutions. Conversely, the intention of this dissertation is to provide a valid and resilient contribution that will add knowledge as well as solutions for the long life of CLIL approaches. Across this literature review new ideas and valuable works may flourish, resulting in creative solutions to overcome the current and particular necessities of CLIL teachers in Spain.

3. THEORETICAL BACKGROUND, CLIL DEFINITION AND CONTROVERSY

Considered one of the most innovative and adequate approaches in bilingual education in Europe (Pérez-Vidal, 2013), CLIL has grown in the last twenty years as a valuable and suitable paradigm fostering FL teaching (Cenoz et al., 2013). Similarly, CLIL's potential is seen as the ideal apparatus with the power of changing and improving the linguistic issue in Europe (Pérez-Cañado, 2016a). Within this positive appreciation, politicians, scholars, teachers, and families welcomed CLIL as the ultimate approach in FL teaching (Pérez-Vidal, 2013). The same author

stated that it seems to be the best approach to practice and progress in any FL. Similarly, from the last twenty-five years, plurilingualism in education is key for new European societies (Pérez-Cañado, 2016a). Certainly, it is stated by the European Commission (1995) in its *White Paper on education and training. Teaching and learning: Towards the learning society*, whose main objective is to equip future Europeans generations with at least two FLs in addition to the mother tongue. This document advocates for a plurilingual and multilingual society with equal opportunities in education with no differences and no linguistic barriers, a system that accept and ease the access to education regardless off background (Commission of the European Communities, 1995). Besides, in this white paper, European languages are described as a double bind; while linguistic variety is welcomed, language homogeneity is desirable to ease European citizens mobility and professional development around the continent (European Commission, 1995).

Considering the interest of European governments to spread CLIL approach in country members, CLIL is a novelty that is everywhere and that fact is making CLI itself a niche of research that still has a lot for developing (Pérez-Cañado, 2016a). Indeed, it has been into the research fields where CLIL has inspired some debate regarding characterization, implementation, and research design, which serve to improve and devise action plans to pave a cemented CLIL future in Europe (Pérez-Cañado, 2015, 2016, 2017, 2018a, 2018b).

Characterization in CLIL has been a field of discussion due to its similarities with immersion programs and content-based instruction (CBI) creating a singular controversy that is seeing as positive to slid from the theory to the practice (Pérez-Cañado, 2016a). More concretely, Cenoz et al. (2013) defined CLIL as an “umbrella” term in which a huge array of approaches tangled creating many variants and a wide range of different pedagogical styles. Other scholars stated that CLIL is not a homogeneous educational model; thus, it is not possible to apply it on a single or fixed layer (Coyle et al., 2010). Besides, it was defined by Marsh and Lange (2000) as an approach with double focus where a FL is used to teach both content and language. It is important to highlight that this variety in CLIL characterization and the difficulty to find a solid consensus to define it yields to a great array of models that are gathering the positive results of other multilingual programs, the benefits of researching and sharing such models (Pérez-Cañado, 2016a).

Sadly, the issue of CLIL conceptualization is not unique. The implementation of CLIL pedagogies also upsurge some concerns. In words of Pérez-Cañado (2016b), it has created numerous models and formats of implementation creating an interesting heterogeneity. Other authors have gone as far as to express that this array of variables in its implementation is

detrimental (Cenoz et al., 2013). It is clear that every educational scenario is a system itself; hence, a singular context per se, in which are needed dissimilar uses of CLIL pedagogy. In this regard, Dickey (2004), as cited in (Pérez-Cañado, 2016a), defined this diverse spectrum of implementation as positively where students can benefit from CLIL pedagogies at its greatest, since its malleable nature operates to meet all students' needs and classroom contexts.

There is still another dispute regarding research. Pérez-Cañado (2016a) argued that, for years, research at CLIL has been carried out inappropriately setting into question the validity of results. Firstly, because of variables, since unreliable control groups and the characterization of their factors tended to be erratic. Secondly, there are many cross-sectional researches when longitudinal design's ones are more appropriate. Finally, the problem of statistical methodology is consistent with analysis focusing solely on responders' appreciations and their beliefs; thus, more empirical analysis to isolate variables are needed.

This difficulty to find homogeneity in CLIL characterization, implementation, and research yield to a negative appreciation of CLIL pedagogies (Pérez-Cañado, 2016a). The same author stated that a debate causing different opinions about concept, research, and implementation is boosting the need for reviewing the factors affecting CLIL so that it can be cemented with a solid foundation to ensure its future and face the challenges it presents.

Easily appreciable, CLIL methodology has moved from a welcomed past where it was perceived as the cornerstone in FL teaching (Pérez-Cañado & Ráez Padilla, 2015) and as the most adequate pedagogy to teach and learn a specific target language—English in this case—(Pérez-Vidal, 2013) to a pessimist present-day appreciation of its effects (Bruton, 2015). Similarly, Swan (1985) coined this as the “pendulum effect” stressing with it that FL teaching had also been characterized for such a skepticism; thus, CLIL is not an exception.

Logically, these controversies have contributed to enlarge and improve CLIL approach (Pérez-Cañado 2016a, 2016b, 2018) which has mobilized a change from the way CLIL teaching and learning process is understood, meaning that new teachers' training and demands are needed to establish a successfully operational CLIL pedagogy. Accordingly, the role of language, FL, and content teachers require an in-deep analysis described in the following paragraphs.

4. NEW TEACHERS' ROLE

4.1 CLIL Demands

The rapid implementation of CLIL programs in Spain comes with embedded needs to develop teaching procedures so that students can benefit from innovative student-centered methodologies (Pavón-Vázquez & Rubio, 2010). However, content teachers do not acknowledge the novelty implementation of CLIL and its methodology (Pavón-Vázquez & Rubio, 2010). Therefore, teachers' role is another niche that requires an in-deep adjustment (Pérez-Cañado, 2018a). Teachers committed to teach in CLIL realms need to change from old-fashioned teaching practices as owners of knowledge to become guides, mediators, and facilitators of learning; thus, devise scenarios student-centered (Pérez-Cañado, 2018a). In short, the step from theory to practical application requires an indisputable endeavor and special training on the part of the teachers (Breidbach & Viebrock, 2012).

Additionally, the words of Pavón-Vázquez and Ellison (2013) are essential when defining the specific features that make CLIL dissimilar from other bilingual approaches, since the stress not only does remark the need for changes at curriculum level but also, and even more remarkable, changes to improve collaboration between content and language teachers

It implies that FL, content, and language teachers may require to reinforce their content knowledge regarding CLIL, which means that they should make an effort to be trained in specific methodologies (Pavón-Vázquez & Rubio, 2010). Obviously, the promise of good pedagogies and brilliant outcomes need the effort of all educative agents—governments, administrations, school communities; and ultimately, teachers. Otherwise, some constraints unavoidably may appear, as described in Pérez-Cañado (2018) many CLIL programs are implemented without following its theoretical foundations and methodologies. Pérez-Cañado stated that it is because of inefficient pre-service and in-service education and training programs respectively, which means that each teacher is applying and using methodologies that they consider the best in CLIL contexts. This is resulting in undesirable results (Pérez-Cañado, 2018).

In this regard, plans across Spain include training teachers to ease their professional development and their quality as teachers (Pavón-Vázquez & Rubio, 2010). The same authors, in the descriptive paper, *Teachers' Concerns and Uncertainties about the Introduction of CLIL Programmes*, labeled some concerns and uncertainties of teachers working in CLIL realms stating that are needed action plans to help teachers use their linguistic capacities to guarantee the benefit of CLIL pedagogy.

These authors portrayed some needs to make CLIL pedagogy success:

- Content and FL teachers should create a collaborative teamwork to sequence content and linguistics needs to access to such content.
- Understanding CLIL approach theoretical foundations is paramount for all teachers involved in CLIL programs.
- Homogeneity in methodologies—instruction-type classes—among content and FL teachers is indispensable to extract the best of CLIL pedagogies.

Therefore, it is assumed that administrations and government are aware of the lack of preparation of teachers to face CLIL structures. More recently, in Custodio-Espinar and García-Ramos (2020a), 383 teachers were surveyed unveiling that the 50% of the in-service primary and secondary teachers lack adequate training to face the demands in CLIL contexts scenarios. Meaning that obstacles or undesirable negative results in CLIL realms may appear due to non-CLIL-focused training methodologies in neither pre- nor in-service teachers' training programs (Pavón-Vázquez & Rubio, 2010). In words of Custodio-Espinar (2020) the pre-service and in-service education and training courses are a must to create a web of quality CLIL programs in Spain.

Considering the innovative demands and specific characteristics of CLIL implementation, teachers committed to work within CLIL contexts do require a battery of competences, capacities, and qualities that form the CLIL teacher profile (Bertaux et al., 2010; Coyle, 2010; Coyle et al., 2010; Custodio-Espinar, 2019a, 2020; Custodio-Espinar & García-Ramos, 2020; Pavón-Vázquez & Ellison, 2103; Pérez-Cañado, 2016a 2018a, 2018b, 2019). At this point, it is logical pondering on which are those competences. Is there a set of CLIL teachers' competences? Or how do teachers really learn such competences? For years, research has tried to untangle the jumble of CLIL teachers' features to come up with a definitive set of competences (Pérez-Cañado, 2017). What follows is a brief review of CLIL teachers' competences and its weighty relevance.

4.2 CLIL Competences

Numerous scholars, like Pavón-Vázquez and Ellison (2103), have described the basic competences required to face the demands in a CLIL's classroom. Also, in Bertaux et al. (2010) a grid defining the CLIL teachers' competences is specified. Additionally, the European Centre for Modern Languages (whose Spanish acronym is CELM) provides a set of principles and ideas for designing a curriculum of CLIL professional development. This project was conducted to find a consensus and define universal CLIL teachers' competences, due to disparities between CLIL programs developed in the EU—Spain is not an exception (Marsh et al., 2010).

The first of the competences—organizational, interpersonal, and collaborative competence—requires first and foremost a description of new roles expected by CLIL teachers. In this regard, Ortega-Martín et al. (2018) cited in Madrid-Fernández et al. (2019), researched the characteristics that influence CLIL's programs implementation in Spain regarding the roles that every CLIL teacher is to execute at school level. They identified as essential elements the management CLIL team formed by the CLIL program coordinator, the content, FL, and language teacher, and the language assistant (LA). Without a shadow of a doubt, the coordination of this teacher-team to tackle the adversities they surely would find when implementing CLIL as well as all the effort involved by themselves, families, and students are the responsible to successfully obtain the positive benefits of CLIL approach. There is another remarkably considered element which is that of the LA. In a guise of an example, only in 2018, 22 million euros were destined to contract Las who are native English speakers since English is the main vehicular language used within CLIL programs (Madrid-Fernández et al., 2019). This means that unusual and never-seen-before learning scenarios in schools are all around Spain. Accordingly, the CLIL school organization differs from old-fashioned schools' managements styles whose hierarchies were perfectly delimited and structured (Pavón-Vázquez & Rubio, 2010). It has resulted in new leadership and coordination's-style among all school agents. Reflecting on this paragraph and the cascade of demands that CLIL implementation boosts, the development of socio-affective, emotional intelligence and collaborative team-work in CLIL contexts is a must.

With respect to the second competence—competence on pedagogical and methodological principles of CLIL approach, the educative administrations have offered and suggested protocols and actions, they have not agreed on any specific pedagogical or didactical style of teaching within CLIL. For instance, one of these programs is the *Informative Guide for Schools with Bilingual Teaching* (CEJA, 2011), which is a guide devised by the Andalusian government that describes the CLIL approach features. In this regard some authors agree on the need for a compulsory battery of courses, at national level, that can tie methodological principles in CLIL (Custodio-Espinar, 2020; Morton, 2016; Pavón-Vázquez & Ellison, 2013; Pérez-Cañado, 2017, 2018b) so that a homogeneous competence could be shared among all teachers. This would allow teachers extricating the best of CLIL's programs implementation. In addition, Fernández-Díaz (2017) described that the incorporation of teachers in CLIL contexts have to come along with CLIL methodology and linguistic programs—a competence discussed later. This coincide with the words of Custodio-Espinar (2020) stating that the success of the CLIL implementation depends on educating and training teachers mixing courses with CLIL methodology and FL

proficiency. Similarly, the lack of CLIL methodology and content knowledge on the part of pre- and in- service teachers is one of the features remarked by Pérez-Cañado (2015, 2018b) and Custodio-Espinar (2019a).

About the third one—linguistic competence—it is paramount to delve one of the CLIL approach' foundations and to describe the differences between Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP). In this regard, Cummins' definition is the most appropriate (Cummins, 1999). The first is related to the real English used in everyday conversations, the language that includes cultural aspects, daily language structures, and the one that flows in classroom interactions; the second one deals with the academic vocabulary which is used to define concepts, abstract constructs, and has academic aims. In this regard, Pérez-Cañado (2016a, 2016b, 2017) and Custodio-Espinar (2019a) unveil that FL teachers certified with C2 level in English according CEFRL, outperform teachers with B2 or C1 in methodological CLIL contexts. In short, although for implementing CLIL approach, native speakers are not crucial, a proficiency level of the target language is desirable so that more attention can be paid to active methodologies.

Finally, the scientific competence focus on the knowledge of the foundations and theories that cement the basis of CLIL stream (Pérez-Cañado, 2017). First and foremost, teachers unknown how to navigate within evidence-based research field of CLIL (Lancaster, 2016; Pérez-Cañado, 2016a, 2016b). In addition, Pérez-Cañado (2016a, 2016b) revealed that the benefits, the machinery of CLIL approach, and the strategies to mobilize its configuration from theory to practice were unfamiliar for teachers in charge. Overall, this is one of the consequences for not taking part in masters' degrees regarding CLIL methodology and international experiences upgrade courses abroad (Pérez-Cañado, 2017). More accurately, the scientific competence focus on the knowledge of the foundations and theories that cement the basis of CLIL stream (Pérez-Cañado, 2017). In a matter of fact, Durán-Martínez & Beltrán-Llavador (2016), cited in (Pérez-Cañado, 2017) argued that the knowledge about CLIL content and its theories is the niche where CLIL teachers coincide—it is considered as the less significant competence by bilingual teachers. Consequently, this is the competence that need more training programs to reinforce and guarantee the future of CLIL approach implementation.

Easily, it is inferring, after reviewing CLIL competences, that working and implementing CLIL approach from scratch is not an easy task. Conversely, it requires, on the part of the teachers eager to immerse on such journey, a great deal of commitment, effort, and work. Meaning that teachers need to develop competences in universities, postgraduate programs, face demands to adjust their practices, and revise existing training programs outcomes (Pavón-

Vázquez & Ellison, 2013) in conjunction with the self-evaluation of both stakeholders and the CLIL program itself. The same scholars argued that the methods required to implement CLIL differ from those that are used within CLIL realms. Consequently, considering the new-subtle-required teacher's role and the protagonist function of universities in pre-service teachers' education, it is crucial to reflect on: the measure taken on the part of universities.-Throughout next paragraphs an in-deep analysis of the evolution of universities is done with the intention to spread some useful answers that may help to grow this field from the earlier stages of CLIL teacher education.

5. TEACHER EDUCATION AND UNIVERSITY PROGRAMS

5.1 CLIL Pre-service Teacher Education

The unavoidable expansion of CLIL pedagogies has delivered valuable information which contributes to the released of numerous publications concerning teachers' education and their required preparation for mastering CLIL contexts (Custodio-Espinar, 2019a, 2020; Pavón-Vázquez & Ellison, 2013; Pérez-Cañado, 2017, 2018b). Similarly, *The European Profile for Language Teacher Education: A Framework of Reference* described that although pre-service teachers may not be interested in teaching in CLIL contexts, being trained in CLIL is beneficial to increase their FL competence, understand how manage FL in CLIL and non-CLIL settings, recognize sociocultural and sociolinguistic features; and overall, appreciate the value of collaborating among teachers (Kelly et al., 2004). In *Teacher Education for CLIL across Contexts: From Scaffolding Framework to Teacher Portfolio for Content and Language Integrated Learning* by Hansen-Pauly et al. (2009), eight essential competences for CLIL teachers are stated: learner needs, planning, multimodality, interaction, subject literacies, evaluation, cooperation and reflection, context and culture. Additionally, to remark the significance and density of CLIL approach, Bertaux et al. (2010) depicted *The CLIL Teacher's Competences Grid*. Furthermore, Frigols et al. (2011) devised *The European Framework for CLIL Teacher Education*, which is considered a guideline for the development of CLIL teachers.

Considering all these publications, it may seem that a significant provision of FL instruction and CLIL approach for teachers is to be implemented (Madrid-Fernández et al., 2019); nevertheless, the question of whether the adequate CLIL teachers' education and its validity is functioning has yet to be seen. Indeed, this reality highlights the complexity of CLIL implementation. Furthermore, the words of Pavón-Vázquez and Ellison (2013) described

acutely the complication of CLIL approaches, its novelty, and the urgent need for concrete CLIL teachers' education. They claimed that CLIL includes numerous variants that require taking decisions, changing procedures, mobilizing organizational school's aspects and renewing methodological strategies. Besides, Pavón-Vázquez and Ellison (2013) remark the necessary education and training on the part of pre-service and in-service teachers in competences related to CLIL and face the demands of such innovative approach successfully.

This remarks again the indisputable acknowledgement of the CLIL competences to master the complexity of CLIL implementation at school level. It is considered then that the CLIL teachers' competence profile (Pérez-Cañado, 2018a) should be studied and developed by CLIL teachers.

5.2 The Role of University Programs

Undoubtfully, providing pre-service teachers with specific academic programs for developing/acquiring the required CLIL competences is a must (Bertaux et al., 2010; Coyle, 2010; Coyle et al., 2010; Custodio-Espinar, 2020, 2019a, 2019b; Custodio-Espinar & García-Ramos, 2020a, 2020b; Pavón & Ellison, 2103; Pérez-Cañado, 2018a, 2018b, 2019). Indeed, a quality training plan on the part of faculties of education for student-teachers stressing CLIL approach can significantly reduce the amount of in-service training programs (Delicado & Pavón, 2016) and diminish the palliative connotation that in-service training currently involves (Custodio-Espinar & García-Ramos, 2020a.). Yet, it is unavoidable questioning to what extent universities are involved in teaching CLIL pedagogies or devising CLIL programs to boost CLIL teachers' competence profile.

As each member of the Bologna system, in Spain, the Ministry of Education, Culture and Sports (2003) stated that Spain had tailored its national university structure to meet necessities and requirements to adjust programs to current educational times and to make their system resemble the European Universities. As a result, the concept of specializations (*menciones*) and degrees appeared in Spanish university programs. It resulted in a significant reduction in the total of hours—European Credit Transfer and Accumulation System (ECTS)—that pre-service teachers received to become a FL specialist in primary education—60 ECTS out of 240—(Jover et al., 2016). On the other hand, according to the *Teaching and Learning International Survey (TALIS) 2013: U.S. Technical Report* by Strizek et al. (2104) there has been a qualitative and quantitative increase in the initial training required.

Similarly, concerning the FL specialization for primary education, Jover et al. (2016) claimed that the significant reduction in university hours implemented—between 30-60 ECTS

to obtain the specialization in FL teaching—is causing negative CLIL outcomes. In addition, faculties of education solicit future FL primary teachers a B2 level in FL according CEFRL to be granted access to English specialization programs. The same authors consider ineffective and insufficient the hours that Bologna program establishes to give accreditation for teacher that are to work in bilingual schools. Additionally, they discussed that those improvements have yet to overcome the disparity between what pre-service teachers learn at university and the demands of bilingual education. Besides, the specialization is considered insufficient which has forced universities to create masters' degrees in CLIL and bilingual education (Custodio-Espinar, 2019a).

Regarding the generalist specialization, a study in which sixty primary teachers from public and private institutions were analyzed unveiled that FL teaching educative programs, at universities, is insufficient (De la Maya & Luengo, 2015). In short, only six credits are devoted to English language and between zero and eighteen to FL didactics. So much so that, in 40% of the programs examined, common credits for all specializations devoted to FL teaching are not compulsory. According De la Maya and Luengo (2015), these results made evident that the training is inadequate and insufficient even though it is being offered in view of the demand for adequately preparing teachers for bilingual schools.

The words of Custodio-Espinar and García-Ramos (2020a) can clarify some of the results of Bologna system implementation conducted by the faculties of education in Spain currently. Concretely, they argued that a palliative training schema is being implemented by both universities and educational authorities to solve such issue; however, it is not resulting as guessed due to a more deep and specific change that is needed regarding CLIL's academic formation.

During the last ten years, research has shown that CLIL pre-service teachers education in the competences required, is more than needed; thus, CLIL-centered programs should be a must in every faculty of education when devising pre-service teachers educational programs for primary education (Bertaux et al., 2010; Coyle, 2011; Coyle & Genesee, 2011; Custodio-Espinar, 2020, 2019a, 2019b; Custodio-Espinar & García-Ramos, 2020a, 2020b; Frigols, et al., 2011; Jover et al., 2016; Pérez-Cañado, 2012, 2016a, 2017, 2018a, 2018b; Pérez-Cañado & Ráez Padilla, 2015).

In this regard, Custodio-Espinar and García-Ramos (2020a), in their work *Are Accredited Teachers Equally Trained for CLIL? The CLIL teacher Paradox*, canvassed the specific flaws of a sample of 383 CLIL teachers. After implementing an *ad hoc* questionnaire based on the CLIL lesson plan model by Custodio-Espinar (2012; 2019a) to measure the

integration of CLIL methodological principles in the teaching style of in-service primary and secondary CLIL teachers, they uncovered that; firstly, teachers need specific training in CLIL pedagogies, methodologies, assessment and theories. Secondly, accreditation to work within bilingual realms should not rely solely on linguistic criteria since it influences the level of integration of CLIL approach; and thirdly, it is indispensable that teachers can conduct self-evaluations to identify specific weaknesses regarding CLIL teachers' competence profile.

Those paragraphs digging through the teachers' education programs reveals that there is a gap between the reality in universities and CLIL schools' needs. Subsequently, plentiful of accreditation models for teaching in CLIL contexts and types of teaching strategies are resulting in an interesting heterogeneity discussed below.

6. WORKING IN CLIL CONTEXTS

6.1 CLIL Accreditation Model

The quality of CLIL programs is mainly leveled from the perspective of the students' academic results (Pérez-Cañado, 2012, 2016a, 2017, 2018a, 2018b). Unfortunately, the impact of CLIL innovative results have been measured neither focusing on the teachers' duty and roles nor with much intensity and reliability (Custodio-Espinar & García-Ramos, 2020b; Pérez-Cañado, 2016a).

Yet, in order to guarantee quality and CLIL's sustainability, prior education for developing the whole CLIL teachers' competence profile is required, which will guarantee greater homogeneity and teachers qualified to teach in CLIL contexts (Pérez-Cañado, 2018a). In fact, the absence of homogeneity is the main criterion to blame according Eurydice (2017), it reported in its *Key Data on Teaching Languages at School in Europe – 2017 Edition*, that the admission criteria for accessing CLIL is neither homogeneous nor standardized which result in a dissimilar CLIL scenario regarding teaching practices.

Besides, it is stated that the unique concordance on the part of the autonomous communities in Spain is exclusively based on linguistic requirements. This is the outcome of not having official central recommendations on the part of the educative administrations except the linguistics ones. Clearly, the nonexistence of governmental regulations on CLIL accreditation model allow/legitimize communities to decide and create their own criteria to grant access to work in CLIL contexts, which is based mainly on linguistic proficiency (Pérez-Cañado, 2018a).

Certainly, such heterogeneity has become an issue that deserves special attention since it is demanded certain degree of homogeneity to create plans/programs/training courses (Custodio-Espinar, 2019a) to alleviate that interesting situation and cement a solid root in CLIL pedagogy implementation; hence, guarantee its pledged benefits.

6.2 Professional Development

The words of Palmer (1998) are thoughtful to begin this section (cited in Day, 2006):

If I do not know myself, I cannot know who my students are, I see them through a dark crystal, in the shadow of my unreviewed life; and when I cannot see them clearly, I cannot teach them well. When I do not know myself, I cannot know my matter; not on the deepest levels of assumed and personal meaning. (p. 67)

The conception of CLIL professional knowledge has to convert the professional development experience into a full self-reflection which analyzes and understands a dialogue with the most elaborated and well-founded CLIL approach principles (Pavón-Vázquez & Ellison, 2013). Indeed, the term reflection is understood as a real tool—teacher-reflection-journal—thus, the experience is narrated and understood, open to the connection and expansion with which the mere action of reflecting gives meaning to the personal and professional development of each pre- and in-service teacher, taking rigorous advantage of the practice and the set of principles to which they have to relate accordingly (Garrido, 2006).

The boost of CLIL methodology and its positive benefits, in conjunction with the government interests for establishing a bilingual system to keep up with modern society's demands, have resulted in an increased call for teachers, whose expertise in CLIL content knowledge, sadly, does not grasp the desirable requirements to guarantee the future and efficiency of such method (Bertaux et al., 2010; Coyle, 2011; Coyle & Genesee, 2011; Custodio-Espinar, 2020, 2019a; Custodio-Espinar & García-Ramos, 2020a, 2020b; Frigols, et al., 2011; Jover et al., 2016; Pérez-Cañado, 2012, 2016a, 2017, 2018a, 2018b; Pérez-Cañado & Ráez Padilla, 2015). The same authors agree on seeing that this situation needs to be reversed to cement the expected and promised CLIL's results.

In this regard, Pérez-Cañado (2016a) conducted a study called *Teacher training needs for bilingual education: in-service teacher perceptions* to identify the situation and needs of teachers training actions to tackle the modern-considered approach of CLIL fruitfully. 706 participants—teaching assistants, content, language and pre- and in-service teachers—took

part from several European countries. It focused on identifying how equipped CLIL teachers were with five main objectives: linguistic and intercultural competence, theoretical and methodological aspects of CLIL, materials and resources, and permanent professional development. Pérez-Cañado noted that in each studied objective there were a paramount need for devising training agendas to reinforce the correct application of CLIL programs. According to Pérez-Cañado the results show that there is a need to educate generations of teachers capable to face the plurilingual reality they will find in schools.

More specifically, also in Pérez-Cañado (2016a), some participants responses—in-service teachers—shone some light on insufficient level on methodologies and materials; call for more methodological training; extra linguistic training focusing on pronunciation; and overall, the need for ongoing professional development including study abroad programs and involvement in action research projects. This last view goes with previous ideas stating that in-service teachers would benefit of engaging in educative reflections under the umbrella of action research procedures within CLIL pedagogies (Coyle & Genesee, 2011). Consequently, it is vitally important to understand and own CLIL approach by pre- and in-service teachers (Mehisto, 2009).

Following Pérez-Cañado (2016a) recommendations regarding research, in Custodio-Espinar and García-Ramos (2020a), the data after researching the level of integration of CLIL programs in the Community of Madrid evidenced the demand for in-service teachers training courses (Pérez-Cañado, 2016a), linking such programs to the school contexts, classroom, and CLIL teachers' specific oddities. Still, to see how these good-intended proposals occur in real practice a great effort is required on the part of universities, faculties of education, educational authorities, and in-service teachers (Jover et al., 2016; Pérez-Cañado, 2012, 2016a, 2017, 2018b, 2018a).

Besides, numerous scholars have echoed the need for solid educational and training programs on the part of the government—educational authorities—which can reinforce the development of CLIL teachers' competences (Bertaux et al., 2010; Coyle, 2011; Coyle & Genesee, 2011; Custodio-Espinar, 2020, 2019a; Custodio-Espinar & García-Ramos, 2020a, 2020b; Frigols et al., 2011; Jover et al., 2016; Pérez-Cañado, 2012, 2016a, 2017, 2018b, 2018a; Pérez-Cañado & Ráez Padilla, 2015). In addition, according to Jover et al. (2016), the so-called shortage in training programs is directly related to the lack of pre- and in-service CLIL methodology and content training, the low level of FL proficiency, the coordination failure among faculties of education and schools, the scarcity in government investment, and the low of impetus and motivation of in-service teachers for being trained in teaching CLIL.

Moreover, this is a scarcity issue that is aggravated when looking into CLIL teachers' needs, since the question of the accreditation model has produced an array of dissimilar CLIL teaching practices/types across Spain (Custodio-Espinar, 2020). In short, due to the fact that every autonomous community has its own system to authorize teachers to work in CLIL contexts and that in-service training courses are not compulsory, it is a complex task to identify the specific formation/training/needs they may require. In this regard, it is essential to consider pre-service teachers' education, since some CLIL educators may already have the CLIL preparation through postgraduate courses in bilingual education. This reality calls into question the issue of not compulsory in-service training participation; and also, what type of course is the most appropriate to conduct.

6.3 The Issue of Heterogeneity

The Spanish's educational system, in its legal framework legislative documents, comprises that every autonomous community can devise different ways of implementing bilingualism, dissimilar procedures to accredit CLIL teachers, and select the content subjects that they devout to be taught in FL. Indeed, English language is the one that holds a prominent position (Pérez-Cañado, 2012). Additionally, in Spain, there are communities that are involved in bilingual contexts—Basque, Catalan, Valencian, and Galician—for twenty years ago, which makes the path of finding homogeneity problematic (Lasagabaster & Ruiz de Zarobe, 2010). Besides, autonomous communities decide the range of hours addressing FL subject matter teaching, the language level that both teachers and students need to obtain the accreditation, and the teachers' bilingual experience taking part in bilingual programs, since in communities as Galicia, Basque Country, Cataluña, and Community of Valencia languages other than Spanish are spoken and the bilingual education already exists deep-rooted (Pérez-Cañado, 2012).

According to Custodio-Espinar and García-Ramos (2020a, 2020b) this situation is even worse signaling that the courses that in-service teachers receive are not compulsory in any community yielding an undesirable heterogeneity in CLIL teacher's competence profile. Indeed, this model relegates methodological training courses to a web of courses which impedes to determine the different CLIL training needs. Not only do the training courses lack of obligation on the part of in-service teachers but also, they are not linked to the accreditation method to become a CLIL teacher specialist (Custodio-Espinar, 2019a). As a result of this situation, there is a vital need to reduce such heterogeneity and move forward to a more homogeneous CLIL training landscape in Spain for developing homogeneously the CLIL teachers' competence profile.

These assertions spark some reflective questions that are part and parcel of this dissertation; on the one hand, it casts doubt upon the type of training courses needed and their specific particularities considering the teachers' background and the schools where they work. On the other hand, there is a question about the amount of training courses that actually exist in the communities and the government investment on them.

7. RESULTS

7.1 From Discussion to Action

The afore in-deep-analyzed paragraphs have sparked a starting point to reflect on possible solutions to enlarge and contribute with an action plan that could help to improve the in-service teachers' educative practices in CLIL approach. To do so, a self-evaluation checklist model was hypothesized as tool to be used by CLIL teachers to identify weaknesses within their learning-teaching processes and CLIL programs implementation.

Table 1 shows the most relevant findings highlighting the positive and negative factors that influence CLIL outcomes regarding the settled objectives.

Findings		Effects
Objectives	Negative	Positive
O1	Difficulty to agree on a CLIL definition. Diversity of implementation with not solid content knowledge. Uncertainty in the role of content, FL, and language teachers.	Students can benefit from CLIL pedagogies due to its flexibility. Can support the creation of action plans to ensure the future of CLIL.
O2	Teachers unknown new demands with neither enough education nor training. Complex research filed because of a variety of factors. Uncertainty in content, FL and language teachers' role and their collaboration. Extra-effort on the part of teachers to learn CLIL pedagogies. Issues to overcome lack of knowledge about CLIL teachers' competence profile.	Valid to devise self-evaluation forms. Professional development in innovative pedagogies. Students can benefit from innovation (e.g. cooperative learning). Multidirectional participation. Ensure BICS and CALP. Defined set of competences to design action plans and research specific issues.
O3	Programs are not implemented robustly and systematical by faculties of education. Scarcity of hours in universities programs. There is a gap between the reality in universities and CLIL schools' needs.	Numerous publications concerning teachers' education programs. Better teacher education programs mean fewer investment for palliative training programs. Understanding teachers' singular needs.

Findings		Effects
Objectives	Negative	Positive
O4	In-service training unspecific; hence the undesirable results. In-service training means expensive investment by administrations. No incentives to take part on them. Insufficient events and activities. Poor mismatch with working hours.	Can be specific to teachers and schools' singularities.
O5	Accreditation models based on linguistic features exclusively. Administrations develop doubted methods for accrediting. Complex web of heterogeneous realities/constructs that are in need for an exhaustive remodeling. Heterogeneity in CLIL implementation.	Create a heterogeneity in methodologies that deserve attention. Numerous ways of CLIL implementation to research what is working and what is not. Facilitated the incorporation into the bilingual programs.
O6	Different accreditation models among communities. Accreditation models based on linguistic features exclusively. Disparate in teachers experience in bilingual contexts. Dissimilar competences and unlike methodologies non-research-based on CLIL.	Teacher self-evaluation as a valid tool to improve CLIL implementation. CLIL teachers can find their identities by systemic reflection on their practices. Training courses mixing language and methodology are positive and can prompt homogeneity.

Table 1. Objectives analysis and its effects

Initially, in the review about O1, CLIL research is healthier than ever thanks to the number of longitudinal and quantitative researches based on empirical evidence where triangulation of variables reinforces the validation of results. A wide range of examples are seen in Custodio-Espinar (2020); Custodio-Espinar and García-Ramos (2020a, 2020b); Pavón-Vázquez and Rubio (2010), and in Pérez-Cañado (2016a, 2017, 2018a). It has been noted that scholars have grown the CLIL concept and narrowed its definition to ensure its benefits when implemented by following its theoretical roots. Even though there is a clear difficulty to agree on a CLIL definition (Cenoz et al., 2013; Coyle et al., 2010; Marsh & Lange, 2000; Pérez-Cañado, 2016a), the findings in this paper have shown two positive outcomes. The first one is in parallel with Dickey (2004) words, cited in (Pérez-Cañado, 2016a), who saw such controversy positively since students can benefit from CLIL pedagogies because of CLIL's flexible nature to meet all students' needs as well as all classroom contexts. On the other hand, the massive spectrum of researchers has supported the creation of action plans to ensure the future of CLIL approach and its implementation (Pérez-Cañado, 2015, 2016a, 2017, 2018a, 2018b).

This impacts the effects of CLIL programs demands and teachers' competences as well as the new role of teachers within CLIL contexts (O2). Firstly, it has been revealed that, effectively, teachers who work in CLIL contexts perform a new role, since not only do they

need to conduct more participative lessons—cooperative learning—but also, such participation is required to be multidirectional—teacher-student, student-student, and student-teacher (Pavón-Vázquez & Ellison, 2103). In addition, it has been identified that every CLIL program must ensure the presence of basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP) (Cummins, 1999; Custodio-Espinar, 2020, 2019, 2019a; Pérez-Cañado, 2015, 2016a, 2017, 2018a, 2018b). Consequently, it is confirmed that CLIL teachers are influenced by their new role to ensure the success of CLIL implementation, which coincides with the words of Pérez-Cañado (2018). While this reality comprises extra-efforts on the part of teachers to be up-to-date in innovative methodologies embedded in CLIL approach, the outcome is considered as positive since students can be greatly benefited from this new teachers' role and professional development.

Actually, this fact influences and boosts the definition of CLIL teachers' competence profile. Painstakingly defined, the competence profile helps to create a solid set of features regarding CLIL integration. Overall, it has been identified that CLIL teachers' competence profile, far from being homogeneous, comprises an array of skills in every competence that are to be owned and developed by CLIL teachers (Pérez-Cañado, 2017).

Moreover, this dissertation concurs with the same author who made an easy-to-understand synthesis of CLIL teacher's competence profile that is subdivided in five competences: organizational, interpersonal, and collaborative competence (necessary to generate a network of socio-affective and labor relations adequate to meet the challenge of CLIL); competence on pedagogical and methodological principles of CLIL approach (it comprises the knowledge of and how to use CLIL foundations); linguistic competence, and scientific competence for reflection and professional development, essential to guarantee that teachers are up-to-date with CLIL research and growing professionally). All of them form the CLIL teacher's competence profile that is gathered in Table 2 shows four columns: firstly, the "Competence" name. Secondly, the "Source" that describes from where—institutions—teachers can learn/develop/integrate competences. Thirdly, the "Agents," the teachers and the role they perform within CLIL programs. Finally, "Descriptors" that shows the specific qualities and skills required to master the competence itself by teachers.

Competence	Source	Agents	Descriptors
Organizational, interpersonal, and collaborative.	University. In-service training. Educational authorities. Faculties of education.	The CLIL program coordinator, the content, FL, and language teacher, the LA, and families.	Leadership, teamwork, emotional intelligence. Legal framework knowledge. Socio-affective relationships.
Pedagogical and methodological principles of CLIL approach.	University. In-service training. Educational authorities. Faculties of education.	The CLIL program coordinator, the content, FL, and language teacher.	Project and Task Based Learning, Cooperative learning, Information and content Technologies (ICT) proficiency. 4Cs. Content and language assessment. Planning CLIL lesson. Legal framework knowledge.
Linguistic.	University. School. Educational authorities. Faculties of education.	The CLIL program coordinator, the content, FL, and language teacher.	Proficiency level of the target language according to CEFRL. Mastering of BICS and CALP dimensions.
Scientific competence for reflection and professional development.	University (postgraduate courses). School. In-service training. Educational authorities.	The CLIL program coordinator, the content, FL, and language teacher, the LA, and families.	Evidence-based research knowledge. Action-research knowledge. Transfer theory to practice. CLIL content knowledge and its foundations.

Table 2. CLIL teacher's competence profile

It is important to underline the issue of the scientific competence, which addresses this reflective point to concur with Pérez-Cañado (2016a, 2017) when stating that obstacles that impede teacher from conducting action-research in their classrooms, acquiring acquaintance with scholar publications, and enhancing professional development should be overcome. Both, Lancaster (2016) and Pérez-Cañado (2017), agreed with the scarcity of training programs for improving the knowledge of how CLIL works and consider based-research knowledge indispensable for professional development.

Consequently, it is affirmed that CLIL contexts are pushing beyond teacher education and training limits for CLIL pedagogies, which makes indispensable an adjustment in teaching practices that cultivates CLIL teachers' competences (Custodio-Espinar, 2020b; Morton, 2016; Pavón-Vázquez & Ellison, 2013; Pérez-Cañado, 2018b, 2017). Similarly, the great array of research in CLIL teachers' competences has unveiled that competences are developed with

dissimilarity among CLIL teachers and according to the school context—as education itself. Overall, there is a lack of teachers’ competence education and training on these competences; thus, a need for specific CLIL training (Pérez-Cañado, 2017). At this point it is fair to state that the evolution of CLIL competences has not been a bed of roses, but rather it has cost tons of researchers to confirm that the competences proposed are valid and useful.

Considering the significance of equipping and developing CLIL teachers’ competence profile, it is essential to find out what the role of universities is and to what extent it influences the outcome of CLIL programs (O3). It has been revealed by numerous authors that, undoubtedly, providing pre-service teachers with specific academic programs for developing/acquiring the required CLIL competences is a must (Bertaux et al., 2010; Coyle, 2010; Coyle et al., 2010; Custodio-Espinar, 2020, 2019a, 2019b; Custodio-Espinar & García-Ramos, 2020a, 2020b; Pavón-Vázquez & Ellison, 2010; Pérez-Cañado, 2016, 2018a, 2018b, 2019). Indeed, a quality educational plan on the part of faculties of education focusing on CLIL approach can significantly reduce the amount of in-service training programs (Delicado & Pavón-Vázquez, 2016); thus, decrease the investment of educational authorities.

Additionally, numerous publications have been identified concerning teachers’ education programs:

- *The European Profile for Language Teacher Education—A Framework of Reference* (Kelly et al., 2004).
- *Teacher education for CLIL across contexts: From scaffolding framework to teacher portfolio for Content and Language Integrated Learning* (Hansen-Pauly et al., 2009).
- *The CLIL Teacher’s Competence Grid* (Bertaux et al., 2010).
- *The European Framework for CLIL Teacher Education* (Frigols et al., 2011).

This confirms that the influence of CLIL teacher education is significant but has yet to be implemented systematically by faculties of education. This fact has been identified when reviewing researches confirming that teachers need specific preparation for mastering CLIL contexts (Custodio-Espinar, 2019a, 2019b; Pavón-Vázquez & Ellison, 2013; Pérez-Cañado, 2017, 2018b). Besides, considering all these programs, it may seem that a weighty provision in educational and training courses of CLIL teachers’ competences is needed (Madrid-Fernández et al., 2019). However, the question of whether the adequate CLIL teachers’ education and its validity is functioning has yet to be seen.

Those paragraphs digging through the faculties of education and pre-service teachers’ education programs have exposed that there is a gap between the reality in universities and

CLIL schools' needs (Fernández-César et al., 2013). Consequently, palliative instruments have been created that did not obtain the desirable results—in-service training courses (Custodio-Espinar, 2020, 2019a), meaning expensive investment. Indeed, these affirmations address this paper to inquire into what extent in-service teachers training influences the outcome of CLIL programs (O4). Precisely, it has been found in Custodio-Espinar and García-Ramos (2020a) that such palliative instruments are not affecting positively to the target teachers who need training in CLIL pedagogies, methodologies, assessment, and theories.

Moreover, Strizek et al. (2014) in TALIS 2013 report, remarked the high price of professional development programs and the scarcity of incentives to take part in them, the insufficient offer of events and activities, and the poor mismatch with working hours. Those factors hinder in-service teachers' involvement in such programs, which, on the other hand, requires painstakingly devising proper courses to overcome barriers and ease the access to professional development (Custodio-Espinar & García-Ramos, 2020b).

Conversely, it is extracted as positive the fact that some researchers have shown weaknesses in teacher education programs. In the same vein, it has been confirmed that teacher self-evaluation can be a valid tool to improve such programs; and ultimately, design efficient teacher education programs that mean fewer investment for palliative in-service teacher training programs (Custodio-Espinar, 2020, 2019a; Custodio-Espinar & García-Ramos, 2020b). As a result, the hypothesis that guides this work might be confirmed, since CLIL teachers who are able to develop a self-assessment strategy are also able to classify/recognize the singularities needed to create effective in-service training programs. Hence, they are more aware of the needs of training and more likely to effectively choose and participate in that training. Similarly, the effects of the accreditation model, which rely solely on linguistic criteria, influence—negatively CLIL teaching practices. Curiously, that fact has yielded this discussion to intermingle O2, O3 and O4 and dig in to what extent the accreditation model to work in CLIL contexts influences the outcome of CLIL programs (O5).

This educative reality—dissimilar accreditation model across Spain—has resulted in teaching practices which are far from being the ideal within CLIL contexts (Custodio-Espinar, 2020, 2019a; Custodio-Espinar & García-Ramos, 2020b; Pérez-Cañado, 2018a, 2018b, 2019). This concurs with Pavón-Vázquez and Ellison (2013) words, whose indications signaled parallel ideas ensuring that to guarantee the future of CLIL pedagogies there is an urgent need for revising the model of accreditation to work in bilingual contexts. Indeed, educative administrations have been developing mistrusted methods for accrediting CLIL teachers (Pavón-Vázquez & Ellison, 2013). Additionally, those CLIL training courses are not

mandatory, and consequently, in-service teachers, keen to do their best, are developing dissimilar competences and applying unlike methodologies far from being the research-based ideal for proper CLIL implementation (Custodio-Espinar 2020,2019a).

Coinciding with Custodio-Espinar and García-Ramos (2020a), in-service training courses mixing theoretical and practical knowledge of CLIL and linguistic training are advisable, in conjunction with thorough teacher self-evaluation. Consequently, with these last words, it is affirmed one more time that the teacher self-evaluation hypothesis may well be the cornerstone to improve both CLIL teacher's formation and CLIL approach implementation.

Accrediting teachers only according to the criterion of linguistic competence has facilitated the incorporation of a greater number of teachers into the bilingual programs (Custodio-Espinar & García-Ramos, 2020b; Pérez-Cañado, 2016a, 2018a, 2018b). Subsequently, plentiful of accreditation models for teaching in CLIL contexts and types of teaching strategies has triggered an interesting heterogeneity (Custodio-Espinar, 2019a, 2019b; Custodio-Espinar & García-Ramos, 2020b; Pérez-Cañado, 2018a, 2018b, 2019). It is confirmed that this model of accrediting creates dissimilar CLIL teachers' profiles that are neither homogeneous nor standardized. Therefore, the absence of homogeneity is another criterion to blame regarding inefficient implementation of CLIL approach (Eurydice, 2017; Ortega-Martín & Trujillo, 2018).

Accordingly, it is stated that, although CLIL teachers are eager for developing in students all the promised benefits of CLIL pedagogy, the results of the programs of educational authorities and universities are not the desirable ones since they do not have the supposed impact that remediates the lack of training. Sadly, the analyzed factors do not denote a homogenous landscape, but rather a complex web of heterogeneous realities/constructs that requires exhaustively being remodeled—renovated or re-constructed—within faculties of education in universities, CLIL teacher education, and CLIL teachers in-service training needs.

This scenery addresses this discussion to explain the findings about O6. Truly, it has been identified that the implementation of CLIL approach is being directly influenced by the accreditation model causing an unwelcomed heterogeneity in CLIL teachers' practices (Custodio-Espinar, 2019a, 2019b; Pérez-Cañado, 2016a. 2017, 2018a, 2018b). Even though there is an unanimous agreement on the need for implementing in-service teachers' courses to address the professional development and improve the formation in CLIL pedagogies (Bertaux et al., 2010; Coyle, 2011; Coyle & Genesee, 2011; Custodio-Espinar, 2020, 2019a; Custodio-Espinar & García-Ramos, 2020a, 2020b; Frigols et al., 2011; Jover et al., 2016; Pérez-Cañado, 2012, 2016a, 2017, 2018b, 2018a; Pérez-Cañado & Ráez Padilla, 2015), there is not a unique

recipe for CLIL approach and its success depends on a thorough analysis/evaluation of the context, teachers and school's needs, resources, and material available (Pavón-Vázquez & Ellison, 2013).

It has been noted that, in Spain, there are discrepancies among communities such as in planning FL lessons, the language level of students and teachers, and the issue of communities as Galicia, Basque Country, Cataluña, and Community of Valencia where languages other than Spanish are spoken and the bilingual education already exists (Pérez-Cañado, 2012). Considering this, the implementation of CLIL as a homogenous pedagogy regarding teacher-training, professional development, and legislative framework, is not simple (Madrid-Fernández et al., 2019).

Likewise, evidence in the study of Custodio-Espinar and García-Ramos (2019,2020a) shown that accredited teachers that were involved in teacher's training mixing methodology and language performed better than other teachers that had not had the same methodological formation. As a matter of fact, this statement goes in parallel with Pérez-Cañado (2016a) suggestion to implement courses for pre- and in-service teachers, in which both language and methodology of CLIL are mingled. This is in line, as well, with the ideas extracted from Custodio-Espinar and García-Ramos (2020a) who indicated that an accreditation model blending these two essential components—language and methodology—in CLIL training courses can reinforce and ease the path to reach the desirable homogeneity in the competence profile of accredited CLIL teachers.

It has been found that dissimilarity in how teachers implement CLIL approach rises the next statement: the accreditation model cannot be exclusively based in linguistic features—underestimating methodology. As long as it is the only way to determine whether a teacher is ready to teach in CLIL contexts, it is preventing students for harvesting the promised CLIL's benefits.

It is, therefore, affirmed that the issue of heterogeneity that results from the accreditation model, the differences among communities, and the disparate in teachers experience teaching in bilingual contexts are negatively influencing the formation of CLIL teachers; and overall, the implementation of CLIL programs. It allows to conclude that professional development is essential to face CLIL demands on the part of teachers. In this regard, it has been noted that many authors coincide on the need for implementing in-service teacher programs to address the professional development (Bertaux et al., 2010; Coyle, 2011; Coyle & Genesee, 2011; Custodio-Espinar & García-Ramos, 2020a, 2020b; Custodio-Espinar, 2020, 2019a; Frigols et

al., 2011; Jover et al., 2016; Pérez-Cañado, 2012, 2016a, 2017, 2018b, 2018a; Pérez-Cañado & Ráez Padilla, 2015).

This has been recognized in the words of Palmer (1998) cited in Day (2006), that harmonize with the specified hypothesis appealing to self-evaluation: “when I do not know myself, I cannot know my matter” (p. 67). In addition, the identities of pre- and in-service teachers and professional educators, what and who they are, their self-image, the meanings they link to themselves and their work are associated with what they teach and how they teach it, the relationships with students, and the connections among their lives outside of school (Day, 2006). It coincides with Pavón-Vázquez and Ellison (2013) when arguing that CLIL teachers must work on understanding an inner-dialogue with the most elaborated and well-founded CLIL approach principles. Finally, it has been found that their professional identities and systemic reflection upon them help them to take position regarding their students and to implement activities to ensure qualified commitment (Day, 2006).

These reflections are the substance to state that personal growing and self-awareness are crucial for CLIL teachers. Therefore, the way in which teachers create their identities is directly influenced by their feelings about themselves and their students. It is confirmed that the professional development and the issue of methodological heterogeneity truly influences CLIL programs (O6). Therefore, teachers that know who they are can create scenarios in which the teaching-learning process within CLIL programs is encompassed with the social reality of every stakeholder. Conversely, should CLIL teachers do not have the tools to see/analyze their teaching-learning processes within CLIL program, they cannot apply instruments to correct or improve such processes. In short, unless teachers see with their own eyes what their needs are, they will never be able to meet those needs. It is confirmed that a self-evaluation protocol could result in great improvements for implementing CLIL programs. That is why self-evaluation is considered as essential tool when the goal is, as described in this paper, to improve what is not resulting as desired regarding CLIL program implementation. Accordingly, following, it is described specifically the purposed self-evaluation checklist model.

7.2 Making the Proposal: Self-Evaluation Checklist

What is the best way to know whether objectives have been achieved, what has worked and what has not? What preparation teachers lack or what has been done perfectly? Obviously, the evaluation/assessment is the answer. Therefore, a self-evaluation checklist with which CLIL teachers can identify the singular needs that they are required to develop or improve to extract the best of CLIL approach is presented. Luckily, as this dissertation has unveiled, scholars have

concluded that evaluation of CLIL programs with accurate questionnaires to dig into susceptible issues is the most appropriate tool (Cenoz et al., 2013; Custodio-Espinar, 2020, 2019a, 2019b; Custodio-Espinar & García-Ramos, 2020b; Morton, 2016; Pérez-Cañado, 2016a, 2017, 2018a, 2018b). Indeed, had it not been for the ceaseless research in CLIL implementation and its assessment, it would not have been created the valuable resources/questionnaires of evaluation used in this paper.

This is the case of the CIPMA of Custodio-Espinar and García-Ramos (2019b), which is a thoroughly done questionnaire, a valid and reliable instrument to be used in CLIL contexts to measure singularities regarding teacher training for CLIL lesson planning. Thus, the educative authorities and the teachers themselves can decide which is the criterion to select the most appropriate training, the one that best suits their real needs. It consists of four dimensions (D) that are subdivided into 23 items (D1: CLIL elements that measures the FL use and the integration of the 4Cs; D2: methodology which measures the attention to diversity and learning strategies; D3: resources that measures the materials and the use of ICT; D4: evaluation that assesses the content and the strategies involved in assessment). This validated questionnaire is useful since the heterogeneity in the CLIL teacher's competence profile presents weaknesses within the CLIL approach (Custodio-Espinar, 2020, 2019a, 2019b).

The proposed self-evaluation checklist (SECL) (see annex 10.1) is based on Custodio-Espinar CIPMA questionnaire (Custodio-Espinar & García Ramos, 2020b). In other words, instead of using it as a survey for teachers, it is used as a self-evaluation checklist from where CLIL teachers can identify themselves whether they are using CLIL competences appropriately considering the four dimensions to make the best of the CLIL approach. Besides, they can identify the singularities that they may need to remediate undesirable flaws. As in every educative process, self-evaluation has the group of stakeholders—in this case, the CLIL management committee. As described in Ball et al. (2015), a CLIL management committee have regular meetings during the academic year so as to monitor the CLIL plan listing: the schools desires, the exact number of students to be immerse on the CLIL subjects, the levels of examination performance that the school aims to achieve in CLIL subjects; the total of agents included; and ultimately, the number and style of material necessary for attaining the planned objectives including how tracking and reporting back the on-going of the program.

Next, the stakeholders that are advised to take the SECL are defined. They are the language, FL, and content teachers, and the bilingual coordinator, whose duty, according to Coyle (2007), includes conducting meetings with all of them regarding collaborative strategies, to help them find common elements in their programs, supporting them to look for common

linguistic elements, and fostering the use of CLIL methodological strategies and appropriate materials which include how to make the best of the LA role. It includes, as well, guiding them to use homogeneous criteria for the evaluation of the FL and content subjects. Overall, based in our findings the bilingual coordinator should be in charge of explaining how and when to take the SECL.

8. CONCLUSIONS

It is confirmed that a mix of embedded elements influence the outcome of CLIL programs. The first issue regarding CLIL definition controversy (O1) has unveiled that it influences negatively and creates an array of different ways of CLIL implementation. It lets teachers without solid CLIL content knowledge and generates uncertainty regarding the role of content, FL, and language teachers within CLIL contexts.

The second objective has reviewed three elements: CLIL programs demands, new teachers' role, and CLIL teachers' competence profile influence on the outcome of CLIL programs. It has been uncovered that teachers unknown their new CLIL demands regarding the competence profile and the idiosyncrasy of collaboration among them. On the other hand, it demands an extra-effort on the part of teachers to learn CLIL pedagogies and rises issues to overcome the lack of knowledge about CLIL approach. Conversely, the defined set of competences are useful to devise action plans as the SECL presented in this dissertation whose aim is to reinforce professional development and secure the future of CLIL programs.

It has been revealed that the role of universities influences CLIL programs (O3). Academic programs are neither solid nor systemic, there are not enough hours devoted to CLIL approach and it creates a gap between schools and universities. However, to remediate this situation the solution is a palliative in-service training which causes high investments by educative administrations and is not resulting as positively as guessed. By contrary, it has been positive to find that numerous publications about this issue are prompting a change in faculties of education since currently they understand CLIL teachers' singularities better.

Nevertheless, the in-service training issue, which is O4, has shown that those voluntary training courses influence the outcome of CLIL programs. Firstly, the aforementioned expensive investment by administrations is not causing good effects. Secondly, training courses are usually unspecific and there are not incentives for teachers to take part on them. All in all, not only there is scarcity in in-training courses but also, there is a poor mismatch with teachers' working hours.

O5, which canvassed the influence of the accreditation model, has shown that reducing the accreditation model to the linguistic proficiency has generated a complex web of heterogeneous realities that need to be remodeled. Conversely, those dissimilarities are not entirely negative since it has attracted some attention to identify what is working and what is not regarding different ways of implementing CLIL.

Lastly, the influence of professional development and the issue of methodological heterogeneity has been evidenced (O6). Initially, its negative influence has been identified in the different accreditation models among communities, the disparate in teachers experience in bilingual contexts, and in the use of methodologies non-CLIL research-based. As for the positive influence, it is clear that CLIL teachers' reflecting on their own teaching-learning process can result in positive outcomes. Besides, research has shown that training courses mixing language and methodology are positive and can prompt homogeneity in CLIL implementation. Finally, teacher self-evaluation has been described as a valid tool to improve CLIL implementation.

Under these important statements uncovered throughout this paper, it is concluded that the hypothesis about SECL could contribute to decide and tailor specific training courses, addressing accurate solutions that may result in desirable and constructive CLIL outcomes.

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10. ANNEX 1. Self-evaluation Checklist (SECL)

Descriptores de la competencia programación AICLE			
Conozco los elementos fundamentales de una programación AICLE: contenido, cognición, comunicación y cultura			
Analizo las demandas cognitivas de las tareas que propongo con relación a una taxonomía, por ejemplo, la de Bloom			
Planifico las actividades de aprendizaje siguiendo una secuencia lógica de razonamiento y desarrollo cognitivo			
Anticipo las demandas del lenguaje que surgen del contenido que se aprende en el aula			
Preparo materiales para apoyar el lenguaje en la fase de comprensión, transformación y producción del conocimiento de los alumnos			
Diseño tareas de aprendizaje centradas en el alumno			
Promuevo el aprendizaje autónomo e independiente de mis alumnos			
Conozco los estilos de aprendizaje de mis alumnos y lo tengo en cuenta a la hora de programar			
Adapto mi programación a las necesidades cognitivas y lingüísticas de los alumnos, tanto en grupo, como individualmente			
Gestiono la participación del auxiliar de conversación en el aula y la planifico previamente			
Promuevo el desarrollo de la competencia digital mediante el uso de las TIC como recurso y como contenido de aprendizaje			
Planifico y preparo materiales didácticos AICLE (realia, scaffolding, TIC...) en equipo para enriquecer el resultado			
Comparto mis programaciones, recursos y materiales con otros compañeros			
Desarrollo estrategias de evaluación formativa (durante el proceso) y empleo rúbricas y <i>checklists</i>			
Diseño herramientas de evaluación sumativa (exámenes) en las que el lenguaje no es una barrera para evaluar el contenido			
Evalúo el contenido, el lenguaje y el proceso de aprendizaje de forma equilibrada y justa			

Fuente: elaboración propia a partir del cuestionario CIPMA (cuestionario de integración de los principios metodológicos AICLE). CUSTODIO ESPINAR (2019, 536-541).

 Elementos fundamentales de AICLE	 Recursos de enseñanza AICLE
 Metodología AICLE	 Evaluación en contextos de AICLE

Source: Custodio Espinar (2019b, p. 28).