

**To cite this article:**

Escobar Urmeneta, C. (2020). Coteaching in CLIL in Catalonia. *CLIL Journal of Innovation and Research in Plurilingual and Pluricultural Education*, 3(2), 37-55. <https://doi.org/10.5565/rev/clil.54>

<https://doi.org/10.5565/rev/clil.54>

e- ISSN: 2604-5613

Print ISSN: 2605-5893

# Coteaching in CLIL in Catalonia



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**T**his article addresses the issue of coteaching in Content and Language Integrated Learning (CLIL) contexts. It does so by retrieving and reviewing data from previous studies on CLIL projects carried out as school-university partnerships with three secondary schools in Barcelona and its metropolitan area, in Catalonia, Spain, in which coteaching was adopted as a strategy for inclusive CLIL. In this multiple case study, the focus is primarily on (a) understanding the way in which coteaching became a key pedagogical strategy in each school; (b) characterizing the modalities of coteaching used in each case; and (c) determining the possible reasons for the longevity of two of the three experiences presented.

**KEYWORDS:**

Coteaching (co-teaching); supplementary teaching; team teaching; CLIL; inclusive education; teacher collaboration; teacher education; teacher development; partnership.

**E**ste artículo aborda la cuestión de la co-docencia en contextos de Aprendizaje Integrado de Contenidos y Lenguas (AICLE). Para ello, recupera y revisa datos de estudios previos sobre proyectos AICLE realizados en partenariat escuela-universidad con tres centros de educación secundaria con sede en Barcelona y su área metropolitana, en Cataluña (España), en los que se adoptó la co-docencia como estrategia para un AICLE inclusivo. En este estudio de casos múltiples, la atención se centra principalmente en: a) comprender la manera en que la co-docencia se convirtió en una estrategia pedagógica clave en cada centro; b) caracterizar las modalidades de co-docencia utilizadas en cada caso; y finalmente c) determinar las posibles razones de la longevidad de dos de las experiencias presentadas.

**KEYWORDS:**

Co-docencia; docencia complementaria; docencia en equipo o en tándem; AICLE; educación inclusiva; colaboración entre profesores; formación del profesorado; desarrollo profesional del profesorado; partenariat.

## Introduction

**C**oteaching (or co-teaching) is an instructional strategy which consists of two or more teachers sharing the space of the classroom and their teaching responsibilities in order to provide their students with higher quality teaching attention.

Content and Language Integrated Learning (CLIL) has been defined as ‘a dual-focused educational approach in which an additional language is used for learning and teaching of both content and language. There is a focus not only on content and not only on language. Each is interwoven – even if the emphasis is greater on one than the other at a given time’ (Coyle et al., 2010: 1). Dealing simultaneously or alternatively with content and language involves a great deal of complexity, and poses for the CLIL teacher a challenge that may affect her wellbeing or/and the quality of the instruction, and consequently its outcomes.

In this article, I argue that coteaching is a well-developed instructional strategy that may contribute to improving the quality of CLIL lessons by bringing together in a single instructional space the complementary knowledge and pedagogical expertise of content and language teachers, and ultimately raising the level of satisfaction and wellbeing of students and teachers. In the first part, I present the definition, characteristics, and modalities of coteaching as presented in the literature to adapt Friend et al. (2010) classification to the realities observed in the greater metropolitan area of Barcelona, Spain. The second part reports on three cases of coteaching in CLIL settings in three state-funded schools in metropolitan Barcelona. The data examined here had been previously collected as part of longstanding school-university partnership projects (Tsui et al., 2009) in conjunction with the Language and Education (LED)<sup>1</sup> research team. The article concludes with some reflections that may inspire future coteaching experiences and teacher-education programmes.

**“Coteaching is an instructional strategy which consists of two or more teachers sharing the space of the classroom and their teaching responsibilities in order to provide their students with higher quality teaching attention.”**

## Coteaching

In their seminal work, Cook and Friend (1995) define coteaching as ‘two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space’ (p.2). The notion of coteaching is further described in that study as well as Friend (2008) and Friend et al. (2010) as a co-equal partnership among co-accountable certified teachers who voluntarily engage in the pursuit of shared goals. Other labels have also been used to designate programmes that imply coteaching of some sort, like ‘tandem’, ‘cooperative’, or ‘collaborative’ teaching. The key features that distinguish coteaching from alternative approaches are listed in **Table 1**.

This purist characterization excludes from coteaching the kind of collaboration between, for example, student-teacher and mentor that is typical in pre-service teacher education, or between certified teacher and school teaching assistant, as the instructors involved in both pairs are not equally responsible for the tuition, or only one of the parties is a certified teacher (Friend et al., 2010). In any case, coteaching aspires to create an educational environment where all students learn and achieve success, and is being applied in very different contexts such as urban schools in New York (Roth & Tobin, 2004) or for the management of upward differentiation (Miskala, 2019).

Often coteachers possess complementary areas of expertise. The case of class teachers collaborating with special education providers in inclusive classrooms as a strategy to minimise stigma for students with special needs has been widely explored, with significant results (Cook & Friend, 1995). In other cases, coteachers are specialised in the same

- There are two (or more) certified teachers in the classroom
- Coteachers function voluntarily in equal partnership
- Coteachers share goals and responsibilities
- Coteaching aims to create an educational environment where all students learn and achieve success
- Coteaching capitalizes on specific strengths and expertise of coteachers
- Coteaching seeks to increase equity in schools
- Coteaching requires trust, communication, planning time, and coordination of effort.

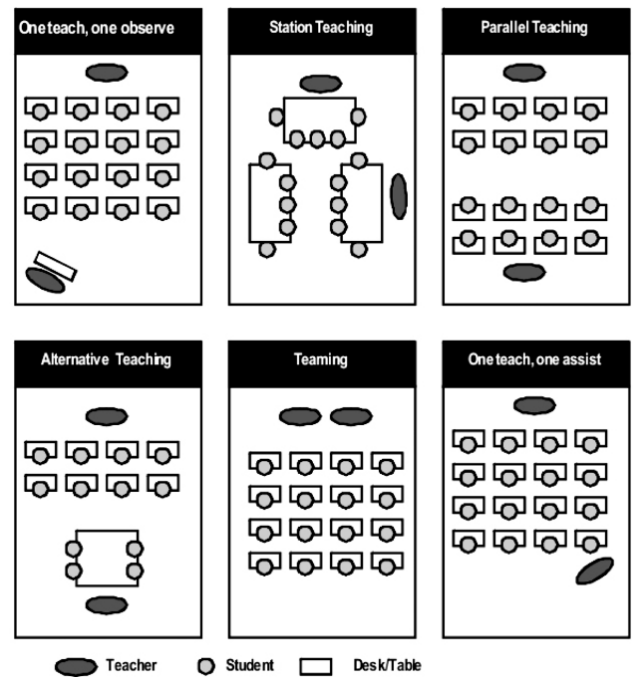
**Table 1.** Defining characteristics of coteachers and coteaching.  
Source: Cook and Friend (1995), Friend (2008), and Friend et al. (2010).

field but offer somewhat different profiles. For example, in an English as a Foreign Language (EFL) classroom, coteaching involving a native speaker of English and a non-native teacher combines the advantages of both profiles in one single environment. Last but not least, a content (e.g., science) teacher and a foreign language (e.g., English) teacher collaborating in a CLIL classroom can become an unbeatable tandem when it comes to generating occasions for the integrated learning of the content and language. This is the type of coteaching which will be presented and discussed below in this multiple case study.

### Modalities of coteaching

There are different modalities or structures of coteaching that can be employed depending on the educational context, the pedagogical goals, the teachers' profiles, or the facilities available in terms of materials and space. Cook and Friend (1995) identified five basic structures or models of coteaching, then expanded the list into six in Friend et al. (2010). The six models are schematically represented in **Figure 1**.

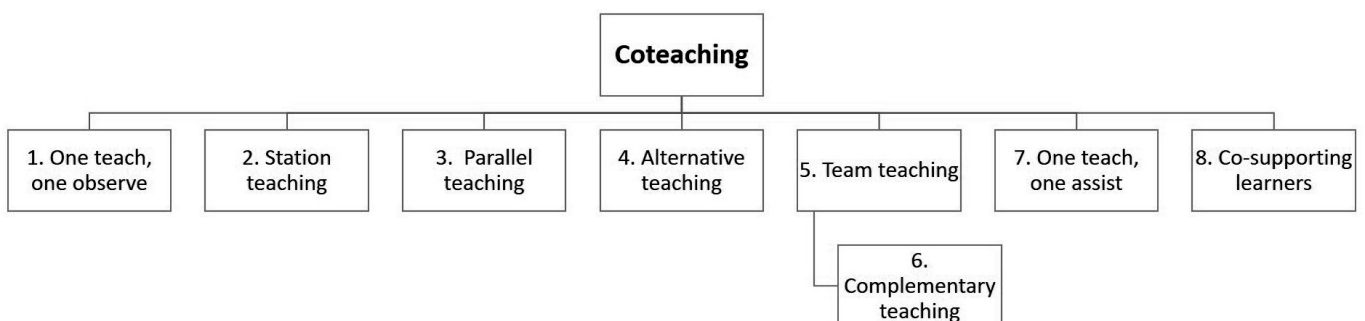
In the present study, Friend et al.'s. (2010) model was used as a point of departure to help categorise coteaching practices we observed in the CLIL contexts to which the research team had access. However, over time it became clear that some interesting practices observed did not have a clear antecedent in the structures depicted by Friend et al. In this paper I adapt the original six-structure model to include two new structures, namely complementary teaching and co-supporting learning. The diagram in **Figure 2** thus shows eight modalities reflecting the practice of coteaching in foreign language teaching and CLIL as observed in Catalonia. The eight structures can be labelled 1) one teach, one observe; 2) station teaching; 3) parallel teaching; 4) alternative teaching; 5) team teaching (or 'teaming' in Friend et al.'s nomenclature); 6) complementary teaching (shown in the figure as a subset of team teaching, as will be discussed below); 7) one teach, one assist or supportive coteaching; and 8) co-supporting learning. Note that in the classrooms observed by the research team these structures rarely appeared in isolation and easily evolved from one to another, depending on the contingencies that emerged in the course of the lesson. That said, it was often the case that one of the



**Figure 1.** Structures of coteaching. Note. From Friend et al. (2010, p.12.). Copyright 2010 by the authors Permission not sought.

structures served as the base model for the lesson. In turn, the specific arrangements for a particular modality were observed to vary on several occasions. (See, for example, the detailed descriptions of modalities 5, 6, and 7.)

Below, I will present each of the eight modalities with its defining characteristics, accompanied by a graphic representation intended to capture the generic characteristics of each model<sup>2</sup>. However, it is important to bear in mind that although these graphic representations often depict students seated in rows, in actual practice a variety of seating arrangements were observed in the classroom, with small work groups predominating. Though useful as a simplified representation of classroom spatial organisation, icons may lead to a distorted understanding of the way coteaching is often carried out in innovation programmes, as well as discouraging potential alternative arrangements. For this reason, when appropriate, screenshots or transcripts from video-recorded lessons have also been inserted in order to provide a more accurate idea of actual implementation procedures.



**Figure 2.** Coteaching models observed in EFL and CLIL classrooms in Catalonia

## 1. One teach, one observe

In this structure, coteachers decide in advance what types of specific observational information to gather during instruction and what system to use for gathering it. After the classroom session, the coteacher acting as ‘teacher’ and the coteacher acting as ‘observer’ jointly analyse the data gathered in order to understand what went on during the class and discuss what to change in future if change seems appropriate. (Figure 3).

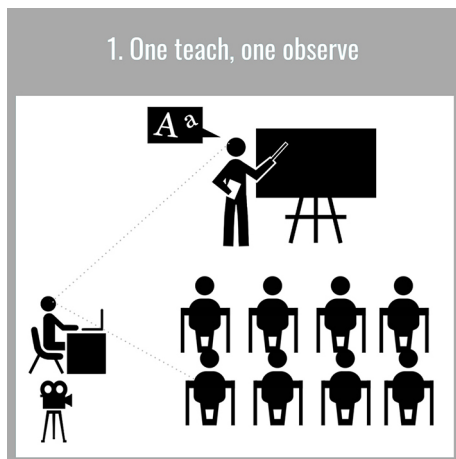


Figure 3. ‘One teach, one observe’ modality

This model is frequently used in teacher (self-) development programmes and often supplemented by videorecording. This is the case of the class in Figure 4, which shows students and the observing coteacher listening to the teaching coteacher (off camera). The video camera in the background also forms part of the observation set-up; having a video camera set up to record continuously frees the observer from taking notes.



Figure 4. Still from a video-recording taken during a ‘one teach, one observe’ coteaching session. Grade 7.

The observer is then available should any student require support from her (see modality 5). Note that the layout of the classroom is not that of the conventional rows depicted in Figures 1 and 3.

## 2. Station teaching

In this modality, groups of students rotate from one coteacher to another to learn different parts of the material (Figure 5). There are different ways to arrange this. For example, students can be divided into two groups, and each teacher takes charge of teaching one half of the content. The two groups are taught different content simultaneously at the two ‘stations’, and then the student groups exchange stations and the teachers repeat their performance. If appropriate, a third ‘station’ can be added where students can work independently. This arrangement was observed most frequently in primary education in across-the-curriculum workshops, where stations are often called ‘corners’ or ‘environments’.

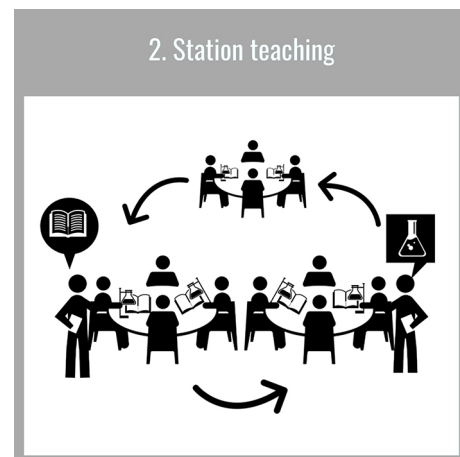
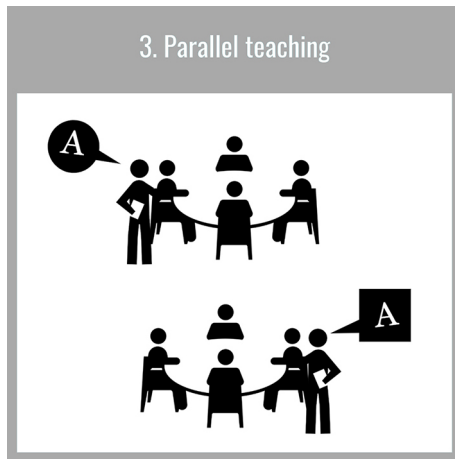


Figure 5. ‘Station teaching’ modality

### 3. Parallel teaching

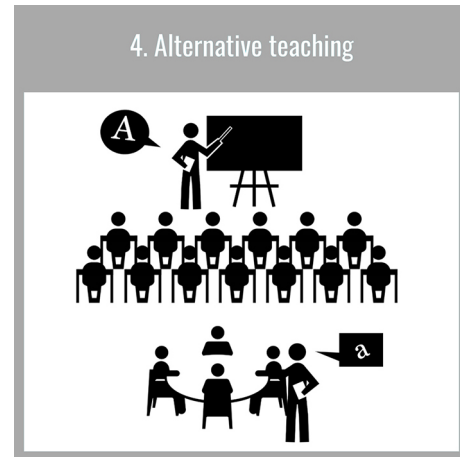
In this modality, the class is also divided into two groups, but in this case both teachers teach the same material, in parallel (**Figure 6**). This structure was uncommon in the contexts we had access to, at least with the two teachers sharing one common classroom.



**Figure 6.** 'Parallel teaching' modality

### 4. Alternative teaching

In this modality, one teacher takes responsibility for most of the students while the other works with a smaller group (**Figure 7**). This arrangement is especially useful when several students need specialized attention. In the instances where we saw this taking place, it had not been pre-planned but was the result of an online decision adopted in the course of other types of co-taught lessons, such as team teaching or complementary teaching.



**Figure 7.** 'Alternative teaching' modality

### 5. Team teaching or teaming

In this modality, both teachers co-lead large-group instruction (**Figure 8**) and also share responsibility for planning, assessment, and grade assignment. This modality requires the greatest amounts of planning time, trust, communication, and coordination of effort. Some authors, especially in the French tradition, refer to it as tandem teaching (See Tardieu & Horgues, 2020).

Team teaching is often found in EFL lessons, where co-constructed two-voice explanations can be particularly useful (**Figure 9**). This technique often involves one coteacher playing the role of main 'teacher' while the second coteacher plays the role of a 'student' in order to model activities or patterns of interaction in the L2.



**Figure 9.** Coteachers co-constructing a two-voice explanation in a Grade 6<sup>3</sup> EFL class.

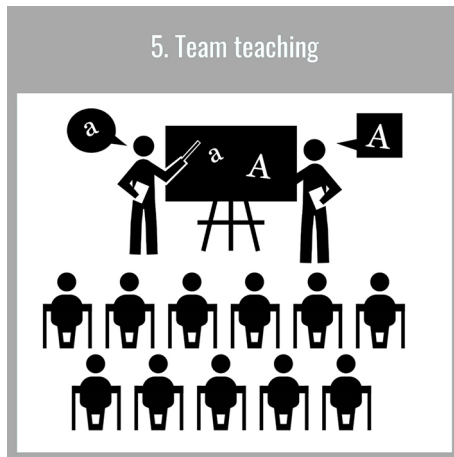


Figure 8. 'Team teaching' modality

This is illustrated in the transcript of a recording made during an EFL class that is reproduced below as **Excerpt 1**. 'CoT1' is the coteacher acting as 'teacher' and 'CoT2' is the second coteacher, who is playing the 'student' role.

**Excerpt 1** was recorded in a class where most of the students were at risk of failure. Aware of the difficulties the students were likely to have understanding simple instructions, CoT1 decided to exemplify the rules of a simple word game by means of role-played interaction. The game is to choose a fictitious first name and then name an activity that begins with the same letter as the name. The story the excerpt tells goes like this: we see CoT2 say that his name is 'Carlo' and then proceed to like 'football', a word that does not begin with C, thus modelling a violation of the game's rules. CoT1

then makes a show of why 'football' is the wrong answer and guides the 'student' to produce a right one, 'cycling'. Having clarified the game procedure, CoT1 then goes on to involve the real students in the activity.

I will now analyse the multimodal resources deployed by the teacher turn by turn in order to achieve her goal. Thus, using verbal and iconic gestures (line 4, **Figure 10**), CoT1 nominates (turns 1 and 2) and poses a task to CoT 2 (turn 4), who, acting the role of a student, purposefully plays his turn wrong (turn 5). The 'teacher' thoroughly checks the appropriateness of the 'student's' answer using the BB to support her line of reasoning (turns 7 to 10) to openly and emphatically (repetitive "no"; shaking gesture) conclude that it is not correct, according to the rules of the game (turn 11). Then she provides him with the clue to a correct answer, using speech and pointing gesture at word on BB (turn 12). Eventually, the acting 'student' gets his answer right (turn 13) and is given positive feedback by the acting 'teacher'. In turns 16 to 18 the "teacher" again deploys a variety of verbal resources accompanied by multimodal ones such as facial expression (16, 18), iconic cycling gesture (17) fictitiously addressed at the acting "student", but including the class by means of her sweeping gaze (17, 18). The 'teacher' then continues the lesson by nominating a new student, this time a real one (turn 19).

This role-played interaction abundant in multimodal resources of different kinds not only exemplifies how to play the game, it also models appropriate ways to exchange information in a classroom setting, for example, when the teacher thanks the 'student' for his contribution ('Thanks, Carlo' turn 6) or when the 'student' inquires about the correctness of his contribution ('Is that correct?' turn 15).



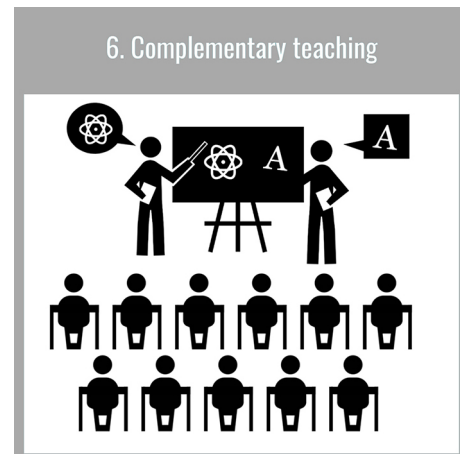
Figure 10. Still from a video recording of a class session in Grade 9. See Excerpt 1.

**Excerpt 1. Cycling with a “C”<sup>4</sup>**

1. CoT1: Hey! (talking to CoT2, at the back of the room, off camera)
2. What's your name?
3. CoT2: Err(.) My name is Carlo.
4. CoT1: And what do you like Carlo?  
(repetitive pointing gesture signalling CoT2, which is observable in figure 10)
5. CoT2: I like very much football.
6. CoT1: Thanks Carlo.
7. Your name is Carlo...(writing 'Carlo' on BB and circling the initial 'C')
8. CoT2: Yes.
9. CoT1: And you like football. (writing 'football' on BB)
10. 'Football' has an 'F' (pointing at the 'F')
11. So no no no no (shaking head ostentatiously)
12. Give me something with a 'C' (pointing alternatively to 'C' and 'F')
13. CoT2: OK (.) uh (.) I like mmm cycling
14. CoT1: Cycling (writes word on the BB)
15. CoT2: Is that correct?
16. CoT1: Yes. (broad smile)
17. Cycling (miming cycling gesture) (.) bicycle(.) (sweeping gaze)
18. Good Carlo (broad smile, sweeping gaze)
19. So, Mamadou ... (lesson continues; a real student is nominated)

**6. Complementary teaching**

Complementary teaching is regarded by some educationalists such as Friend et al. (2010) as merely a variety of team teaching since it shares all the features of team teaching listed above. However, like other authors (i.e., Nevin et al., 2009) we consider it a modality on its own right given the paramount importance of complementarity in CLIL, because this modality capitalizes on the specific strengths and expertise of each coteacher (**Figure 11**). More specifically, in this structure coteachers possess complementary areas of expertise and each one is responsible for using his/her knowledge and skills to enhance the instruction provided by his/her fellow coteacher (still photos illustrating this modality can be seen later in **Figures 16, 17, 18, and 19** in the following sections of the paper). **Figure 12** shows a different seating arrangement from those represented in the previous screenshots. Here, in the background, one coteacher is seated next to the computer (downward arrow) while the other is

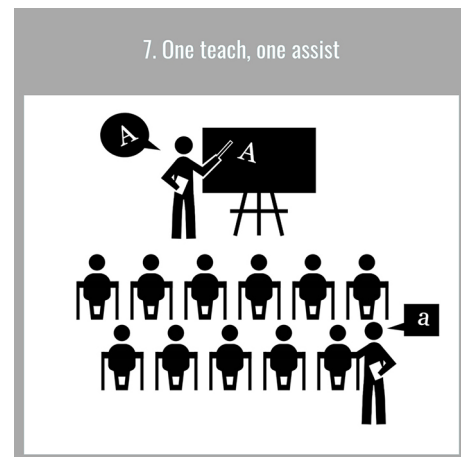


**Figure 11.** 'Complementary teaching' modality



**Figure 12.** Still taken from a classroom recording of 'complementary teaching' taking place as Grade 8 students and teachers discuss preparation of the school journal.

**“In Complementary teaching coteachers possess complementary areas of expertise and each one is responsible for using his/her knowledge and skills to enhance the instruction provided by his/her fellow coteacher.”**



**Figure 13.** ‘One teach, one assist’ modality

seated with her back to the camera forming part of the circle of the students (upward arrow), both of them guiding the students in a group dynamics activity. The class is at the very beginning of an across-the-curriculum project co-organised around preparation of the school journal.

In spite of the difficulties inherent to both modalities, team teaching and complementary coteaching were the modalities most commonly seen by the LED research team in EFL and CLIL classes in Catalonia.

### 7. One teach, one assist or supportive coteaching

In this modality, one coteacher assumes the lead role while the other circulates among the students unobtrusively offering individual assistance. Roles may be switched during the lesson (**Figure 13**), and there may be more than just one

coteacher taking the ‘assistant’ role. This modality appears mainly in combination with other modalities (especially ‘one teach, one observe’) and in lab-work (**Figure 14**), the lab being a potentially hazardous environment thus requiring close supervision.

### 8. Co-supporting learning

In this modality, which (like complementary teaching) is not present in Friend et al. (2010), students work on their own, either individually or in pairs or small groups. Meanwhile, the coteachers circulate around the classroom providing help to students in need, pointing out issues that have gone unnoticed, giving advice on how to redirect a particular line of action, or providing emotional support to students. This modality was often encountered in project- or enquiry-based classrooms (classroom stills can be seen in **Figures 16** and

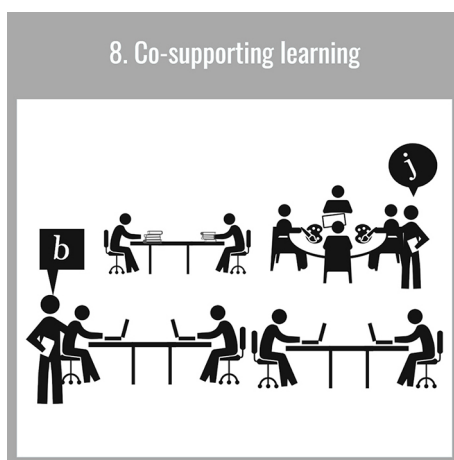


**Figure 14.** The ‘one teach, one assist’ modality during lab-work in a Grade 7 class, in this case with not one but two assisting coteachers (in back at left).



17 further below).

Technology is particularly valuable for supporting self-directed student work (Figure 15), so co-supporting learning is especially frequent in technology-enhanced classrooms organised around any of the many varieties of learner-driven project-work or individual or team learning contracts. In this type of environment, coteachers usually start out the lesson by framing the work to be done, enacting coteaching modalities 5, 6, or 7 above, then move on to modality 8 to provide tailor-made support to individual students and/or teams. Finally, the coteachers close down the lesson by reflecting with the students on the work done and/or generating expectations about the work to be done in the next session.



**Figure 15.** 'Co-supporting learning' modality in a technology-enhanced environment.

### Bottom-up and top-down and approaches to coteaching schemes

The introduction of coteaching schemes in schools may be the result of either bottom-up initiatives from individual teachers, or top-down proposals made by the school management team. The two approaches have their respective advantages and both may be workable, but they also have their own particular pitfalls which can generate frustration and ultimately lead to abandonment of the coteaching programme altogether. With regard to the top-down approach, Murawski (2009) warns against programmes that are imposed on teachers without the necessary previous groundwork.

*Many schools are undertaking co-teaching without putting the important components into place for success. They are putting two teachers in the room in an 'arranged' marriage, with no time for teachers to get to know one another, to learn how to co-teach, and to establish norms, goals and expectations that both can embrace. (p.2)*

On the other hand Huguet and Lázaro (2018) (as cited in Boada, 2020) presage the unsustainability of teachers' initiatives if they are not made to fit into the school's overall pedagogical approach. Thus they warn that isolated coteaching practices and highly motivated teachers are important, but in order for them to be sustainable and become a driving force for change and improvement, the school management must take responsibility for them and promote them as an overall school institutional strategy.

### Coteaching in CLIL: a multiple case study

The multiple case study presented below aims to portray and document three specific experiences of coteaching in CLIL in Catalonia. More specifically the objectives are to:

- understand the way in which coteaching became a key pedagogical strategy in each school;
- identify the modalities of coteaching employed in each case, and the common or differing traits among them; and
- identify key elements for each case that may explain the longevity of two of the three cases presented, potentially leading to short and long term success.

### Method

The method adopted takes the shape of a multiple case study (Cohen et al., 2007; Denzin & Lincoln, 2005), with the results presented as a narrative (Merriam, 2009). According to Creswell (2007, p. 73), 'case study research involves the study of an issue explored through one or more cases within a bounded system.' More specifically, the narrative accounts presented below describe the cases of three schools that adopted coteaching as one main strategy in the implementation process of their innovative school CLIL-wideschemes. All three schools provide secondary education, which makes them more comparable, and all three also set up their respective coteaching programmes with the teaching staff they had available. They were chosen as the cases for study here because all three had been the object of previous focused studies on various aspects related to CLIL pedagogy which had resulted in a wealth of data, which were now revisited with coteaching as the focus. This cumulative approach allowed me to build up an overview of what coteaching in CLIL settings currently looks like in metropolitan Barcelona. In addition, the coteaching programmes at two of the three schools have proved long-lasting, a characteristic that may shed some light on the sustainability of the approach, a lack thereof often being named as one of its drawbacks.

Each case is narrated around three main themes that emerged from a review of previous focused studies on various aspects related to CLIL pedagogy, which are cited throughout the cases: 1) the first steps in the implementation of coteaching, which include the process of design, preliminary teacher-education actions, and initiation; 2) consolidation and extension of the project; and 3) evaluation of the project's results. The narratives are illustrated with screen shots taken from video-recorded data and documentary data. Cases are labelled according to school-generated tags ('Think and discuss', 'Scienglish', and 'Let's make it, Champions!') that became popular for internal use at each school, as they seemed to distil an important part of the pedagogical rationale for each project. However, for confidentiality purposes, the identity of the participating schools is protected here by our use of three pseudonyms, Forest, Hill, and River.

## Results: There cases of coteaching in CLIL

### Case 1. Think and discuss

The Forest Secondary School is a public<sup>5</sup> school located in a Barcelona neighbourhood that is undergoing a rapid process of transformation from being an industrial area into a mixed social class residential neighbourhood. Forest accommodates 500 students aged 12 to 18, and its CLIL project has been explored from different angles (see, for example, Escobar and Evnitskaya, 2017; Escobar and Walsh, 2017; Pallarés, 2011; Pallarés and Petit, 2009a).

#### 1.1 First steps

The CLIL project began with a proposal made by the school's head teacher to two math and two English teachers,

which was enthusiastically accepted. It was expected that CLIL would help raise the somewhat disappointing students' standards in both math and English. A preliminary training session in English for Specific Purposes (ESP) and CLIL pedagogy offered by the administration was followed by two early decisions that marked the programme. First, the CLIL programme would extend from Grade 7 to Grade 9, whereas Grade 10 math would continue to be taught in Catalan in order to guarantee language standards in the students' L1. Second, coteaching was identified as a key feature for successful double-focused instruction and adopted at an early stage of the project. The problem of staffing was solved by replacing some half-group sessions with two-teacher sessions. The project development proceeded in three steps.

#### 1) Team formation

Two teams were formed, each composed of an English teacher and a math teacher. The participating teachers began to share resources and methodological approaches in discussions that served to generate ideas and constituted a true experience of collective teacher-development.

#### 2) Planning and material design

The collaborative design of CLIL teaching materials that would integrate a fresh approach to the teaching of mathematics through English as a foreign language became a space for reflection on teaching and learning. Co-planning generated an exchange of information that led to the adoption of innovative practices that not every teacher in the project was previously familiar with. One example is *cooperative work*, which was suggested by one of the coteachers and adopted by all as a default instructional structure. As reported by the teachers themselves, 'co-planning is a time consuming job but it pays off.' Co-planning attempted to make compatible a High Order Thinking Skills (HOTS)



**Figure 16.** A *think and discuss* task in action in a Grade 9 math-in-English CLIL class. Math teacher at front left, English teacher, partly hidden, standing at the back.

approach with a discursive perspective on language which combined the ‘talking to learn’ with ‘learning to talk’ approaches (Escobar Urmeneta, 2008). One outcome of this work was the ‘think and discuss’ task type (**Figure 16**), where students working in cooperative teams were presented with reasoning problems that had to be solved creatively through guided discussion (Pallarés & Petit, 2009b,c; Petit & Socias, 2009). Although a large part of the material was designed during the planning stage, that is, before the actual teaching began for each academic year, implementation with the first cohort actually functioned as a ‘pilot phase’, and lessons learned from it helped coteachers to fine-tune materials and tasks in a continuous action-led developmental process.

### 3) Execution and ongoing monitoring

For three consecutive years, the English and math teachers co-taught in the three weekly periods. That implies that both team members were present in the classroom throughout the three weekly math-in-English lessons enacting well-defined functions. In the math classroom, the predominant coteaching structure was that of ‘complementary teaching’ outlined above. This was often the case when the English coteacher took the role of a student who did not understand some key concept and asked the math teacher a series of clarification questions. An external visitor described this strategy as follows:

*I thought I was in a kind of a play in which the teachers were actually kind of acting out Dr Jekyll and Mr. Hyde. Both coteachers had a role and they were performing it really accurately. CoT1 was the math teacher, she is ‘the one who knows’, who explains the theory and uses proper mathematical vocabulary. On the other hand, CoT2 is the English teacher, who helps CoT1 by providing an explanation whenever she has a problem communicating something in English. Thus far, I haven’t described anything unusual, but there is far more hidden underneath. CoT2 clarifies the activity or the exercise the students have to perform. Sometimes he pretends he didn’t understand and he explains it in an easier way for the students to understand. In doing so, he restates the aim of the activity and clarifies what the students have to do. There is a dialogue between both teachers during the class, a real interaction, so that makes the class more enjoyable.*

Apart from complementary teaching, other modalities came into play in very natural ways. Some examples:

- The English teacher often acted as a language model in the math class when needed (one teach, one assist).
- Groups of students were simultaneously taught or assisted by both coteachers (parallel teaching; co-supporting learning)
- Station teaching was deployed to practice specific skills.

This modality sped up the rhythm of the lesson while at the same time helped to break down the barrier between timid students and the apparently distant teacher.

- The close monitoring of the experience included having one coteacher take the leading role while the other took notes or photos, or video-recorded the lesson in order to document and improve the process (one teach, one observe).

Overall, the flexible arrangement of coteaching allowed for a more efficient management of group work, and more room for individualised attention.

As for the standard English lessons, on the one hand, they helped learners develop general communication skills, and on the other, they enabled learners to cope with the specific discursive challenges posed by the discourse of math. In a way, the subject-specific goals converged and became complementary to one another: English was used to teach and learn math, and math generated a variety of intriguing topics of conversation for the English classroom.

## 1.2 Consolidation and extension

Co-taught math at this school is still continuing today, with new math and English teachers now participating. Moreover, co-taught CLIL has been extended to other subjects, such as social studies, art, physical education, and media communication, incorporating coteachers on a voluntary basis. However, despite the growth of the programme, continuous school-wide coteaching ultimately became untenable due to a lack of resources. Whereas the initial approach is still mandatory for newly participating teachers, two types of readjustments, which are applied flexibly depending on the needs and availability of resources, have been made. First, coteaching is limited to one or two periods per week, and second, the process is extended over one or two school years until the team has built up a common understanding of the project and can carry on working as a team with a high degree of complicity.

The proper functioning of this complex endeavour is overseen by a specially created CLIL Department under the guidance of an English teacher, who is responsible for, among other things, the horizontal and vertical coordination of the work conducted by teams of content teachers and English teachers so as to ensure quality instruction.

## 1.3 Evaluation

Close monitoring over the years has led to a continuous revision and redrafting of plans, tasks, and materials that incorporates the experience gained in previous lessons. Regarding the outcomes of the project, the students made significant progress in English as well as in mathematics from

year 7 to year 9, and found the approach both challenging and worthwhile. Also, conversational data gathered by LED researchers showed that Grade 9 students participating in a non-math unplanned conversational task displayed conversational skills at roughly CEFR B1 or higher<sup>6</sup>.

As for the teachers, they reported that coteaching had helped them to be more flexible, open-minded, and tolerant, and more open to taking the sort of risks that any innovative action entails.

Finally the head teacher who inspired the project has retired, and two of the most enthusiastic teachers that put it into motion left the school some years ago. Nonetheless, eleven years after it was first initiated, many different teachers have been part of this project, and, at the present time, it is still going strong. The CLIL Department has unquestionably played a key role in the programme's consolidation and ongoing evolution.

## Case 2. *Scienglish*

The Hill Secondary School is a public secondary school located in Barcelona's industrial belt. Officially designated a 'high complexity' school<sup>7</sup>, Hill's 450 students aged 12 to 18 come from predominantly low-income and migrant origins. Newly arrived students sometimes begin in the middle of a school year with limited competences in Catalan and Spanish, the two co-official languages in Catalonia. In order to cater for the needs of all its students, the school has organised a flexible competency-based curriculum, where multidisciplinary projects are designed so that opportunities for learning at different levels emerge 'naturally'. Languages, whether local or foreign, are

always taught in combination with non-language content worth being explored. Hill has been the object of a number of education studies, such as Eixarch (2010, 2011, 2014), Eixarch and Peláez (2012), Escobar Urmeneta (2011), and Jiménez (2009).

### 2.1 First steps

The two-fold type of innovation (CLIL through coteaching) was launched by the head teacher in an environment characterised by low expectations for students, where teachers' conversations usually revolved around the themes of 'deficit', 'low standards', or 'inability'. In this highly challenging context, the proposal received a mixed reception from the staff, but a few teachers, in spite of judging it unrealistic, decided to give the project a chance. The fact that the Special Needs Department supported the idea was crucial to this decision. From then on, coordination meetings between the Science and English Departments were regularly held so that all teachers in those departments could contribute their ideas as well as warnings to the planning process, regardless of whether they were actually going to be involved in the coteaching or not. In order to cope with CLIL-related challenges, the school asked a local university for interns who would also play a very active role in the project as teaching assistants.

One significant outcome of this process was *Scienglish*, a learning 'environment' generated by drawing from the teachers' complementary skills and expertise, where English and science teachers work hand in hand in the design of science-driven enquiry-based projects, pedagogically founded on Lemke's (1990) 'Talking science', which are enacted through the medium of English. *Scienglish* makes



**Figure 17.** Co-teachers assisting groups of Grade 8 students working on their *Scienglish* projects, exemplifying the 'co-supporting learning' modality of coteaching.

up a single syllabus that integrates the mandatory goals and contents for science and English, and is co-taught for six periods per week, as one single syllabus. That is, there is a continuum of science through English tasks; language-awareness activities are inserted when necessary and language and conceptual support is offered throughout. Because there is no course book that matches this sort of syllabus, tasks and teaching materials are designed or heavily adapted by the coteachers. Because it is recognised as drawing a particularly challenging student population, the institution is allocated a higher teacher-to-student ratio than mainstream schools. This makes it possible to have two teachers per class, six periods per week.

One defining characteristic of the *Scienglish* lessons is their inclusiveness: all students, no matter what their competences in Catalan, Spanish, or English, learn together in an inclusive classroom environment with the support of their peers and two coteachers (i.e., the co-supporting learning modality), as can be seen in **Figure 17**. The role of the Special Needs Department has been key to achieve this inclusiveness. Another relevant feature is the eclectic experiential approach taken by teachers, which comprises a wide variety of tasks including lab experiments, simulations (i.e., students acting out ‘the behaviour of particles’), and art projects, where English teachers tend to adopt the role of assistants and/or observers.

## 2.2 Consolidation and extension

After more than a decade, though the head teacher that instigated the project has retired, the *Scienglish* teaching teams continue to function smoothly, and the initially complementary roles of the science and English teachers have progressively become less distinguishable in the classroom, as each teacher has gained expertise in the complementary area. Presently, *Scienglish* continues with some adaptations,

**“All students, no matter what their competences in Catalan, Spanish, or English, learn together in an inclusive classroom environment with the support of their peers and two coteachers”**

such as devoting some of the periods to Basic Interpersonal Conversational Skills (BICS; Cummins, 2008) in English or to the consolidation of central core science concepts in Catalan. Other theme-based CLIL projects of various types are presently being implemented using coteaching as one key strategy for inclusivity.

## 2.3 Evaluation

*Scienglish* is a very radical form of CLIL initially launched top-down with the support of a few English teachers but some resistance from the Science Department, whose teachers believed that the use of English as a means of instruction could be detrimental for the development of science-related competences as a consequence of the limited competences of the students in the target language. Yet, at this point, coteachers claim to have enough evidence that *Scienglish* favours the meaningful learning of science through the use of the English as a driving force for social integration and the development of self-confidence and self-esteem of students at risk. Hill students now achieve, on average, higher scores in external examinations<sup>8</sup> of English than students in other underprivileged areas of similar characteristics. Ongoing monitoring of the project continues, and adjustments are accordingly made.

## Case 3. Let's make it Champions!

The River Secondary School is a state-subsidized but privately-run school<sup>9</sup> located in an impoverished area in Barcelona's industrial belt. The ages of its 1500 students range from 3 to 18. The case has been explored in a number of studies, such as Corredera, 2009; Corredera and Ruiz 2010, and Corredera-Capdevila and Martínez-Ciprés, 2015.

### 3.1 First steps

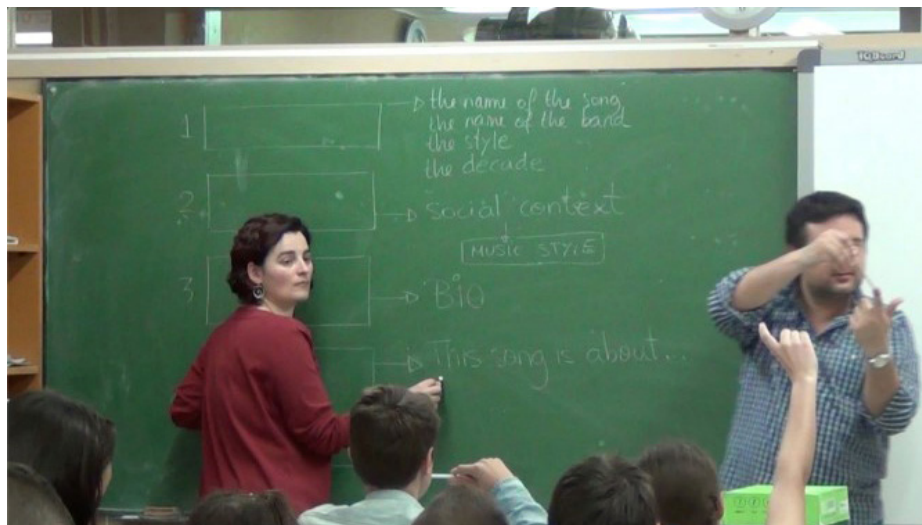
The project was initiated bottom-up by a committed English teacher, with the approval of the school management. In 2007 one closely monitored pilot experience in CLIL music in grade 10 was set up (in the one teach, one observe modality). The outcomes of the project were highly valued by the initially sceptical music teacher, and presented to the school management board. The decision was made to start planning a comprehensive CLIL programme, where coteaching was identified as a key strategy for success. The process began with a tailor-made teacher-education course to be given in the school, leading to the design of teaching units and projects, and the corresponding teaching materials. The resulting CLIL programme advocated coteaching but was realistic in terms of the number of teachers available with adequate qualifications.

The CLIL music programme became a standard part of the school curriculum for Grades 9 and 10 in 2009. In Grade

9, co-taught music was restricted to one period per week, combined with one period of CLIL music taught by the music teacher, and two periods of standard English lessons, often devoted to helping students cope with the literacy requirements imposed by the CLIL subject. In Grade 10, co-taught music expanded to two periods per week, supplemented by three periods of English.

Although different coteaching models came into play at different moments, the predominant structure was that of complementary teaching, which is nicely captured in **Figures**

**18 and 19.** As can be seen in **Figure 18**, the music teacher was almost exclusively concerned with giving his students a firm grasp of the music content, with the English teacher providing support, in this case by writing on the board. Then, in **Figure 19** we see the moment at which the language agenda takes over, and the English teacher orients herself towards the students rather than the music teacher. This illustrates how the English teacher, always adapting to the music teacher's agenda, became adept at pushing her students not only to claim knowledge or demonstrate understanding by using a single word, but to eventually construct academically



**Figure 18.** Music coteacher eliciting key concept “tempo” from the students. English teacher oriented to music expert. Grade 10.



**Figure 19.** English coteacher eliciting more complex (champions) discursive forms from the students. Music teacher oriented to English teacher.

accountable stretches of discourse, thanks to a carefully built up scaffolding process (Evnitskaya & Escobar Urmeneta, submitted). In order to convey the message that high quality production was expected from them, the English co-teacher developed a sports-based metaphor, where well-formed sentences were equated to a ‘Champions League’ of English. So when she called out ‘Let’s ‘make it Champions’’, students quickly understood what was expected from them and did their best to produce well-formed sentences rather than one-word answers.

Other functions performed by the English coteacher were to clarify, paraphrase, or simplify her colleague’s explanations, as well as record key content/language items on the blackboard in such a way that they would be available in the following activity (**Figure 19**). On the whole, the timely interventions of the English teacher contributed to creating a space for the development of the students’ music literacy skills in English (Evnitskaya & Escobar Urmeneta, submitted).

### 3.2 Consolidation and extension

In the following years, CLIL science was introduced in Grades 7 and 8, with one co-taught period per week. A ‘*Taste of art*’ project was developed for Grade 8, with one co-taught period per week. At the primary level, CLIL arts and crafts was introduced from Grade 1 to Grade 6, where coteaching periods varied greatly depending on the resources available.

### 3.3 Evaluation

The first years of the co-taught CLIL music programme resulted in a dramatic improvement in students’ mastery of English as they progressed along it. The English teacher reported that the CLIL project had helped to free her from the restrictions of a corset-like grammar-based approach and move onto a competency-based syllabus. The students also showed themselves to be more self-confident when using English and participated eagerly in different types of English-medium activities and the teacher’s awareness of the students’ improved skills encouraged the teacher to join European exchange programmes, where they could develop their English further. The teams made up of English and music teachers developed coteaching skills that helped them to make the most out of the co-taught periods, and showed progress towards more learner-centred methodologies, which in some cases were transferred to Catalan-medium lessons.

After seven years of coteaching, the English teacher who had originally promoted the programme left the school. Her replacement did not share her enthusiasm for coteaching, and the high degree of complicity achieved by the previous tandem did not fully develop in the new one. Little by little, the enactment of complementarity in classroom conversations began to fade. At present, the school is trying to reinvent the coteaching programme and will surely soon find a way to recapture the hearts, minds, and mouths of both teachers and learners.

## Discussion and conclusions

The three cases presented bear many resemblances but also important differences (see **Table 1**), which will be discussed below.

The student body at all three schools came from underprivileged backgrounds and had little access to foreign language education outside school (even though River is semiprivate and therefore not entirely free for students, suggesting a community with greater resources). All three implemented coteaching as a key strategy tied to CLIL teaching in Grades 7 to 10 and set up their respective programmes with the teaching staff available to them at the time. As the coteaching programme grew and required more resources, the schools adopted strategies to keep the project feasible. Thus, Forest and Hill started out with strong coteaching projects with three and six co-taught periods per week respectively. When teams reached a high level of coordination the number of hours was reduced, with investment directed instead to the incorporation of new teams into the project. River, on the other hand, having chosen as its CLIL subject music, which had a much lighter curriculum than math or science, allocated one or two weekly periods, depending on the grade. On the other hand, every school chose a different subject to start the project with, and the selection was mainly due to the availability of content teachers qualified to teach through English. However, their respective experiences show that the three subjects are equally appropriate for CLIL.

As for the coteaching modalities observed, team teaching in its complementary teaching variant was the base model for the three cases presented here. The clear division of roles according to area of expertise, with content teacher and language teacher each contributing to the lesson from his or her own knowledge base area of expertise, was very apparent at River and Forest, and to a lesser extent at Hill. Different ways to organise complementarity according to the needs of the particular class were also observed. The type of conversation that **Excerpt 1** above illustrates, in which an activity is demonstrated through a role-played conversation between coteachers and two-voice explanations around initiation-response-feedback (IRF) cycles, or a set of ‘frequently asked questions’ (FAQ) being answered was often observed at Hill, but also seen to a lesser extent in the other two schools. At Forest the English coteacher was commonly observed adopting the role of a student in trouble. This particular strategy helped not only to clarify dense content, but also to offer a valuable model for unconfident students, who would then see that ‘not understanding’ was acceptable in the classroom. Even more importantly, such students could see that incomprehension was best resolved by asking questions. The teachers at River, on the other hand, tended to opt for consecutive contributions: first the music coteacher taught some key content, then the English teacher scaffolded the students to develop their contributions into more complex stretches of discourse. All these are examples of dialogical techniques intended to make explanations more dynamic and the relationship between language and content-matter more salient.

However, at all three schools it was also observed that, with time, each coteacher learned from his/her colleague and was ultimately able to provide support to learners in both content and language. This was mainly observed in project-based environments, where the co-supporting learning modality predominated. The one teach, one observe modality was also frequently observed occurring in both planned and unplanned ways, and the subsequent peer feedback helped teams and teachers to grow. Other coteaching modalities came into play in similarly flexible ways, although to a lesser degree.

Pallarés and Petit (2009a) make a key point about what lies behind the three cases presented. They state that...

*[Coteaching in CLIL] only works if it is assumed that each specialist is 'ignorant' of the other speciality and that, therefore, constant exchange is necessary. Thus, for example, in a math classroom it is the mathematics teacher who is the expert and guides the sessions, but he/she needs to work side by side with the English teacher, who will help to turn the class into a space of fluid communication and interaction. And conversely, the English teacher, who is more comfortable with the instructional language, needs the math teacher to guide him/her.*

(Pallarés & Petit, p. 67)

	<b>The Forest</b>	<b>The Hill</b>	<b>The River</b>
<b>School ownership</b>	Public	Public	Private ownership; public funding
<b>School size</b>	500	450	1500
<b>Default school language</b>	Catalan	Catalan	Catalan
<b>Socioeconomic background</b>	Mixed class neighbourhood	Low income neighbourhood. High rate of newly arrived population.	Working class neighbourhood. High rate of unemployment
<b>Sociolinguistic background</b>	Catalan and Spanish. Minority of speakers of other languages.	Spanish. African and Asian languages. Catalan residual.	Spanish, Catalan with a minority of speakers of Mandarin and Russian.
<b>Grades (Age)</b>	7 to 12 (12-18)	7 to 12 (12-18)	Kindergarten to Grade 12 (3-18)
<b>CLIL Subject (s)</b>	Math (and social studies, art, physical education, media communication)	Science (and theme-based CLIL projects)	Music (and art, science, art and crafts)
<b>Inclusivity</b>	One group selected for pilot project. Inclusive from then on.	Fully inclusive	One group selected for pilot project. Inclusive from then on.
<b>Predominant coteaching modality</b>	Complementary teaching, and co-supporting learning combined with other modalities.	Complementary teaching, co-supporting learning, combined with other modalities	Complementary teaching, One teach, one observe; combined with other modalities
<b>Predominant complementary strategy</b>	Role-played interaction	Two-voice explanations	Consecutive teaching actions: first content, then discourse
<b>CLIL/Coteaching programme initiated by</b>	Head teacher	Head teacher	English teacher
<b>Number of coteaching periods / week</b>	3 for all teachers in the two first years in the project.	6 in the early years moving to 4 when consolidated.	1 or 2 depending on the availability or resources
<b>Coordinating structure</b>	CLIL Department	Periodical meetings of language and content departments	English teacher
<b>Project still on</b>	yes	yes	no

**Table 2.** Relevant characteristics of the three cases.



This does not mean that coteaching does not place great demands on teachers: in an informal conversation one of the coteachers who took part in this study expressed a certain relief at returning the traditional only-one-teacher-in-class mode. However, at the same time she acknowledged how rewarding the experience of coteaching had been for her.

As for sustainability, the Forest and Hill projects, both initiated by the school management, provided themselves with organizational structures where different issues were discussed and decisions were made, with vertical as well as horizontal components. Although different, the structures generated in the two schools functioned as a meeting point where coteachers found support and which helped to create a coteaching culture that expanded to the whole school. This arrangement undoubtedly helped both schools escape the threats predicted by Murawski (2009) in relation to top-down inspired coteaching projects. River, on the other hand, adopted a different approach. Although the head teacher eagerly approved the project, he fully relied on the expertise and enthusiasm of one single teacher, and did not see the need for any type of internal structure that would guarantee the sustainability of the project at the high energy level with which it had started once the initiating teacher left. The fact that the teacher who replaced her was appointed without her views on the matter being heard previously did not help either. Huguet and Lázaro's (2018) as well as Murawski's (2009) warnings seem to have proved true in this case (see above).

Last but not least, it should be stressed that students in the first cohort of the coteaching programme at all three schools showed significant improvement in terms of foreign language competences when compared to their peers. Students also reported a very high degree of satisfaction at all three locations.

As a final observation, though having two or more teachers sharing one common classroom has tended to be an uncommon practice in the Spanish teaching tradition, the success of coteaching projects such as the three case studies examined here has generated increasing interest in this approach. As a result, diverse teacher-education initiatives in Catalonia, such as the official courses run by the Catalan government's Department of Education and the Autonomous University of Barcelona (UAB), have recently begun to include a coteaching component as a cornerstone of their in-service CLIL training courses. In the case of UAB'S preservice secondary teacher education, coteaching is directly inserted in the internship period (Terès, 2020), but the demand from student-teachers themselves is that it should also become part of the on-campus courses (Esgleyes, 2020). To our knowledge, coteaching has not yet become an explicit component of primary teacher education in Catalonia. However, we predict that it is only a question of time before this happens. ■

## Aknowledgements

My deepest gratitude to the teachers from whom I have had the pleasure to learn so much, namely Montse Jiménez, Mónica López, Miquel Mas, Carlota Petit Olivella, Olga Quilas, Bruno Ruiz, Ana Sánchez, Liz Raga, and Teresa Socias. We are also grateful to the schools that agreed to collaborate with us, notably secondary schools INS Les Aimerigues in Terrassa, INS Milà i Fontanals and INS Salvador Espriu in Barcelona, and INS Sabadell in Sabadell, and the Escola Purificació Salas i Xandri primary school in Sant Quirze del Vallés. Other schools worked hard with us too. I am indebted to them all.

## Notes

- 1 LED, which stands for Language and Education, is a UAB-based research team (Ref. 2017 SGR 1728). Further information is available at <https://grupsderecerca.uab.cat/led/>.
- 2 Original graphics designed by Ana Sánchez.
- 3 International grades are used throughout the article. Grades 1 to 6 make up Catalan primary education; Grades 7 to 10 comprise the first four years of secondary education, and are compulsory in Catalonia; Grades 11 and 12 make up Batxillerat.
- 4 Key to notation: underlinedword: pronounced with emphasis; (word): comment from the transcriber; full-stop (.): micro-pause; BB: blackboard.
- 5 'Public school' meaning that it is state-owned and managed.
- 6 The average level for written skills in English for Grade 12 students in Catalonia is CEFR A2+ in written skills, as shown by external tests. Oral skills are tested only internally.
- 7 Schools categorised by the Catalan government's Department of Education as 'high complexity' are those that accommodate a high percentage of students at risk of exclusion due to economic, professional, family or individual factors. For example, students may have special needs and/or developing competences in the co-official languages, live in single-parent homes, or have unemployed parents.
- 8 Key-competencies tests run by the Department of Education.
- 9 What is known in Catalonia as an *escola concertada*.

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