Learning to become a CLIL teacher: teaching, reflection and professional development

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Learning to become a CLIL teacher: teaching, reflection and professional development

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This case study is part of a larger project which aims to determine the usefulness and validity of a model of a pre-service content and language integrated learning (CLIL) teacher education programme inserted in a Master’s degree, whose main pedagogical option is to achieve teacher empowerment through cycles of collaborative teaching and shared reflection. More specifically, the two-fold goal of the study is to describe the nature of the student–teacher’s main accomplishments on her teaching practice, if any, as well as on the quality of her reflection on that teaching practice; and to identify and characterise key stages in her developmental process throughout. The analysis adopts an ethnographic perspective and explores fragments of videotaped CLIL science lessons in English/L3 and other multimodal data (student–teacher’s journal, academic reports and instructor’s field notes) collected in a master’s degree for secondary teachers in Barcelona, where Catalan and Spanish are co-official. Through Multimodal Conversation Analysis and Ethnographic Content Analysis, the study reconstructs the developmental process undertaken by the informant throughout one academic year. The analysis traces the student–teacher’s progress both in the practical handling of the specific challenges of the CLIL lessons and in her progressive understanding of key issues in the domain of Second Language Acquisition (SLA); it also shows how teaching practice and reflection shape and fuel each other. In addition, it illustrates how CLIL teachers may benefit from tools developed in the field of Applied Linguistics in order to improve their professional skills.

Keywords: teacher education (TED) models; teacher-led enquiry; classroom interactional competence (CIC); CLIL; code choice; internship

Introduction

The last 15 years have witnessed an outburst of content and language integrated learning (CLIL) programmes all over Spain (Lasagabaster and Ruiz de Zarobe 2010). The interest in the teaching of content-subjects through a foreign language (FL) – usually English – is also present in Catalonia, a region where already two languages – Catalan and Spanish – are legally regulated as a means of instruction in compulsory and post-compulsory education. Thus, when English enters Catalan schools as a working language, it becomes the third language of instruction (Escobar Urmeneta and Nussbaum 2010; Pérez-Vidal and Juan-Garau 2011). This outbreak coincided in time with the launching by the Spanish Ministry of Education of a 60-ECTS Master’s degree, whose official guidelines, surprisingly, do not include any reference to CLIL.

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It is in this context that the Bellaterra Teacher Education (TED) Master’s Degree decided to adapt its offer so as to fulfil all the requirements set by the Ministry on the one hand, while simultaneously presenting all student–teachers with some basic information on CLIL, and offering them the option to relate to CLIL settings three of the mandatory course units or modules, namely (a) classroom-based research module, (b) internship and (c) Master’s Dissertation (MD). The detailed procedure followed in the so-called Bellaterra Model which is presented in Escobar Urmeneta (2010). Table 1 shows the basic course structure, as well as the CLIL-related contents and the codes for the mandatory assignments relevant for the study.

**Literature review**

*Dissociative vs. integrative TED models*

TED models can be classified into two broad categories: dissociative and integrative programmes (Escobar Urmeneta 2010). In the first, teacher-training syllabi are based on lists of theoretical principles and teaching techniques are systematically presented in lectures. This type of Cartesian training usually reproduces in TED paradigms omnipresent at all levels in education, where:

The teacher talks about reality as if it were motionless, static, compartmentalized, and predictable. (...) contents which are detached from reality, disconnected from the totality that engendered them and could give them significance. Words are emptied of their concreteness (...). The outstanding characteristic of this narrative education, then, is the sonority of words, not their transforming power. (Freire 1992, 57, emphasis added)

University lectures are then complemented with internship periods in practicum schools. Dissociative approaches are based on the assumption that the student–teachers, when in schools, will automatically be able to apply to their lessons the teaching techniques that derive from the theory taught at university. Unfortunately, classroom observation shows that once at work the contents presented in lectures are categorised by the novice practitioners as ‘sonorous words’ ‘detached’ from the here-and-now challenges that the lessons impose on them. As a result, the theoretical principles and teaching procedures taught at university come to lack all kind of ‘transforming power’.

**Table 1. Course structure.**

<table>
<thead>
<tr>
<th>Schedule</th>
<th>October–November</th>
<th>November</th>
<th>December–February</th>
<th>March–April</th>
<th>May–June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>7 weeks</td>
<td>2 weeks</td>
<td>8 weeks</td>
<td>6 weeks</td>
<td>10 weeks</td>
</tr>
<tr>
<td>Activities</td>
<td>Lectures</td>
<td>Internship 1</td>
<td>Lectures</td>
<td>Internship 2</td>
<td>Autonomous work</td>
</tr>
<tr>
<td>CLIL-related</td>
<td>Introduction to</td>
<td>Video-recording</td>
<td>Introduction to</td>
<td>Video-recording</td>
<td></td>
</tr>
<tr>
<td>contents</td>
<td>CLIL and</td>
<td>lessons.</td>
<td>teacher-led</td>
<td>lessons.</td>
<td>Orientations</td>
</tr>
<tr>
<td></td>
<td>classroom</td>
<td></td>
<td>inquiry</td>
<td></td>
<td>for MD</td>
</tr>
<tr>
<td></td>
<td>observation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignments</td>
<td>Practice 1 (P1)</td>
<td>Reflection 1</td>
<td>Practice 2 (P2)</td>
<td>Reflection 2</td>
<td></td>
</tr>
<tr>
<td>(code)</td>
<td></td>
<td>(R1)</td>
<td></td>
<td>(R2); MD (R3)</td>
<td></td>
</tr>
</tbody>
</table>
Conversely, integrative approaches to TED attempt to bring theory and practice together and advocate that teacher-led enquiry is central to teacher’s development. They include, among others Action Research (Carr and Kemmis 1986), Reflective Teaching (Richards and Lockhart 1996) or Teacher Empowerment (Short 1992). Other non-labelled models emphasise the importance of classroom observation (Lasagabaster and Sierra 2004) or University–School Partnership (Tsui, Edwards, and Fran 2009).

In this vein, Schön (1987) theorised the Reflection-in-action/Reflection-on-action model for TED. According to Schön, Reflection-on-action allows the teacher to go back to particular teaching situations and explore how she acted and why she acted the way she did, as deep reflection requires time and distance. It is hypothesised that in doing so, teachers will gain deeper understanding on teaching situations and classroom life, which will result in the improvement of their professional skills and their capacity to reflect on them.

The Bellaterra Model departs from an integrative approach to TED deeply rooted in a sociocultural view of education (Lantolf 2000; Mercer 2000; Vygotsky 1930/1978) and an interactivist view on Second Language Acquisition (SLA) (Firth and Wagner 1997; Mondada and Pekarek Doehler 2004). This framework emphasises the interdependence of social and individual processes in learning, and attributes the quality of the conversations in which participants engage a central role in education. This rationale is instantiated in the alternation of cycles of action and reflection, triggered by a number of course assignments and sustained, aided and pushed forward by discussions held in tutorials, one-to-one conferences, lectures and informal exchanges. The literature is viewed as one more conversationalist, especially valuable once the student–teachers have some practical knowledge, that is, once the student–teachers have questions and data to bring into their readings.

**Teacher-led interaction in CLIL classrooms**

FL classrooms differ from L1 classrooms in many ways. One of them is the relevance attributed by teachers to the learners’ participation in the co-construction of discourse. Walsh (2006) coined the term classroom interactional competence (CIC) to refer to the complexities of classroom discourse observed in FL classrooms in order to afford students interactional space:

> Classroom discourse varies in response to the unfolding task-structure and in accordance with stated pedagogic goals. A teacher’s ‘talk’ may be high or low; it may involve the use of extended silence; it may be typified by extensive explanations; it may require form- or content-focused feedback; it may use display or referential questions. The variability of language used in response to the work-in-progress enables learners to play a more prominent part in the jointly constructed discourse. (130)

Although teachers are not the only participants responsible for it, CIC is very much determined by the choices they make during the unfolding of the lessons.

A set of recent studies using conversation analysis (CA) have described a number of qualitative differences in the way teacher–class interaction is enacted in CLIL settings (Escobar Urmeneta, in progress; Escobar Urmeneta and Evnitskaya, forthcoming a; Evnitskaya 2012; Escobar Urmeneta and Evnitskaya, forthcoming b; Evnitskaya and Morton 2011). These studies show that successful CLIL lessons
present all the characteristics identified by Walsh (2006) as components of CIC in FL classrooms, which can be grouped into three main categories: (a) the use of learner-convergent language, including the abundant use of gesture; (b) the facilitation of interactional space so that learners are given the opportunity to contribute to the class conversation and (c) the ‘shaping’ of learner contributions by seeking clarification, modelling, paraphrasing, reiterating or repairing the learners’ productions.

Since teacher-led interaction accounts for two-thirds of all the talk in CLIL classrooms with the total or quasi-total absence of extended teacher monologue (Dalton-Puffer 2007), it appears that offering student–teachers opportunities to develop efficient ways to manage academic conversations in a FL seems an unavoidable content in any TED course.

The case of Pilar

Context
This case study is part of the DALE-APECS project2 on CLIL Science Classrooms. The data were collected at El Firmament School, located in an underprivileged working neighbourhood in metropolitan Barcelona, where the predominant academic profile among parents is that of basic compulsory education. As a result of a blend of sociocultural and educational factors, students at the age of 15 showed a competence level in English which roughly ranged between a Common European Framework of Reference for Languages (CEFR) A1 and a low A2. It is in these adverse conditions that a team of teachers chose to start up a CLIL programme, as they considered that schools need to become agents for social change, rather than the institutionalisation of inequality. The assumption behind this audacious resolution was that the running of a CLIL programme –together with other simultaneous actions– would not only better the students’ exit levels in English but also contribute to the improvement of the students’ self-esteem by allowing them access to English, a form of ‘capital’ (Bourdieu 1986) highly valued by the Catalan society.

In order to overcome the many possible obstacles ahead, it was decided that the English teachers, the Science teachers, with the assistance of student–teachers (English and Science) would work together in the ad hoc planning, co-teaching and evaluation of CLIL Science Teaching Units to be piloted in selected groupings. The outcomes of this school-led action-research process would be used to design a comprehensive CLIL Science curriculum available to all the students in the school (see Escobar Urmeneta [2011] for a detailed presentation of the experience).

Method
Pilar’s case was selected for close examination because she happened to be a good informant, as she was not intimidated of sharing her (un)certainties with peers, mentors or tutor. The study is an interpretive reconstruction of the key stages in the process of action, reflection and change undergone by Pilar throughout one academic year. The resulting narrative aims to trace cause–effect relationships between practice and reflection, if any, and assess the validity of the formative proposal in terms of progress made by the student–teacher along the course and the programme’s potential for professional lifelong development.
The conversational data selected for this study were collected in slots corresponding to Science lessons covering mandatory curriculum contents (Trophic chains and Pressure), which were taught wholly in English under the supervision and the assistance of the Science mentor and the collaboration of the English mentor. All data are approached in an emic way, respecting the significance attributed by the participants to the different events.

Five mandatory assignments have been used to portrait Pilar’s development at particular points in the process and to capture empirical evidences of change: (a) a video-recorded lesson taught in Internship 1 (coded ‘P1’); (b) a self-reflective report on P1 (coded ‘R1’); (c) a video-recorded lesson taught in Internship 2 (P2); (d) a self-reflective report on her progress from P1 to P2 (R2) and (e) MD, (coded ‘R3’). The former assignments provide two main types of data: conversational, extracted from the videotaped lessons, and textual, derived from the reports and MD. Field notes have been referred to provide supplementary contextual information when convenient.

The interactions in P1 and P2 were transcribed using Transana software, employing conventions based on those proposed by Jefferson (2004) (Appendix 1). Non-verbal actions are described using line-to-line narratives (Evnitskaya 2012). Additional contextual information is provided with video screenshots, whereas English translation of the Catalan or Spanish utterances is offered in parallel to the original text. By means of Multimodal CA, which approaches classroom talk as conversation (Kupetz 2011; Markee 2005; Seedhouse 2005), the study sets out to discover how messages and the meanings derived from them are co-constructed by partners-at-talk as the interaction unfolds’ (Dalton-Puffer 2007, 37), which will allow identifying the student–teacher’s development from P1 to P2 in the way she conducts teacher-led explanations.4

Written documents are approached using Ethnographic Content Analysis (Altheide 1987), that is, recurrent issues, words or themes are tracked over R1, R2 and R3 in order to identify patterns and processes. Finally, the findings derived from the analysis of the scripts and those of the reports are related to one another in order to reconstruct the developmental process undertaken by the informant throughout the academic year and how teaching and reflecting may have influenced one another.

Narrative

October

The story began in October, when the student–teachers had been presented with a number of videotaped lessons to observe. They were informed that they would be required to record several lessons and select three short excerpts to present and discuss them once they would be back at university. Pilar had expressed then her distrust of being recorded, but finally accepted it as one more of the many demands imposed by the institution.

November

Pilar started her internship period in November. Her experience with CLIL began with a Teaching Unit on Trophic Chains to be taught to a class of 30 14-year-old students. Excerpt 15 corresponds to a transitional moment when the student–teacher aims to present an activity intended to revise facts related to nutrition, where the use
of a teacher-made chart and a set of cards are meant to help low-proficiency learners to contribute to the co-construction of the academic explanation. One student at a turn is supposed to read-out the card, add some relevant information about the content in the card and stick it onto its corresponding place in the chart. The screenshot in Figure 1 corresponds to Line 10 in the transcript.

The lesson begins with Pilar’s long monologue (Lines 1–46) in front of an attentive class. In Line 1 (L.1), Pilar announces a new activity and immediately self-translates the announcement into Catalan. The announcement is followed by focusing the students’ attention on the chart using a number or multimodal resources: pointing (L.4), comprehension check (L.6) and teacher’s movement towards it and two pauses (L.4 and L.7). In L.9, a new bit of information is introduced (it is empty), followed by a pause and self-translation used as a means to speed up the explanation (L.10). From L.12 to L.15, Pilar continues adding bits of information using different resources to aid understanding such as intonation, pauses, repetition, contrast, definition or gesture. The rest of the transcript evidences Pilar’s ability to get and hold the students’ attention and win and sustain a cooperative audience who complies with the student–teacher and tries hard to satisfy her demands all throughout the excerpt.

However, the more than abundant use of gesture, the pauses she introduces in her speech (L.1, 10, 14,19), the comprehension checks (L.12, 17, 26), the pervasive resort to code switching used by the student–teacher (L.3, 10, 19, 22, 28, 34, 70, 72) and other resources do not result in a successful learner-oriented conversation. The students’ abundant verbal and non-verbal contributions (L.27, 47, 48, 49, 50, 51, 53, 56, 59, 61, 62) evidence that, even if they are trying hard, they are unable to decipher the role that the different components of the complex teaching apparatus displayed by the student–teacher (explanation, chart and cards) play in the lesson. The result is that the students seem to drift rather than navigate the lesson.

Figure 1. ‘It is empty’.
1. Pilar so\down (.) now\up (.) we are going to make another activity\down (0.2)
2. una\ altra\ activitat\down (0.9) we’ve got here a food web
3. another\ activity
4. (2.4) ((points at the chart on the whiteboard opposite the blackboard and students turn round to look at where she is pointing at))
5. Pilar okay? (4.7) ((Pilar approaches the chart while pointing at it, and students follow her with their gaze))
6. Pilar but\up (.) ((turns to students, looks at them))
7. it is empty\down (0.4) \textit{està\ buida}\down (1.2)
8. okay? this is a food web\down ((points at the words ‘food web’ on the whiteboard)) (0.5) not a food chain\down ((shakes finger while looking at students)) (0.7) food web\down (0.5) it means a lot of arrows\down (0.3) ((follows some arrows with her finger))
9. Blanca ((yawns))
10. Pilar can you see? ((gazes on Blanca))
11. Blanca ((nods))
12. Pilar many\ arrows\down (0.4) ((turns body to her right to address the other side of the classroom))
13. molts\ camins\down ((traces some arrows with her finger))
14. Carme xx? ((private turn))
15. (1.1)
16. Pilar okay? (SS xxxx ((murmur))
17. Pilar so\down (0.5) what we are\ going\ to do\up (0.3) el\ què\down (what)
18. anem\ a\ fer\up (0.7) \textit{és omplir}\down (0.4) to stick here\up
19. we\ are\ going\ to\ do\ is\ to\ fill
20. ((presses the palm of her hand against the whiteboard making the gesture of sticking something)) (0.3)
21. enganxar\up (0.6) ((looks at students))
22. Stick
23. which\ animals\ and\ plants\up (1.3) ((continues pressing her palm against the whiteboard))
24. are\ going\ to\ be\ there\down (1.1) okay?
25. Blanca ((fidgets with one corner of the chart))
26. Pilar ok\down (2.0) ((Pilar starts moving back to the blackboard))
27. Pilar so\down (5.7) ((Pilar returns to the blackboard, students follow her with their gaze))
28. Roger (what about (.) this one?)
29. (0.6)
30. Pilar who\ wants\ (.)\ to\ start?\ [((points at a certain item on the chart)) xxxx]
31. Roger ((looks at the teacher and raises her hand))
32. Antoni it’s\ the\ same\down
33. FS(?) which\ one?
34. Nerea start\down
35. Irene \textit{el\ sol}\down ((laughs))
36. the\ sun
37. Fani ((points at a certain item on the chart))
38. at\ the\ top\ at\ the\ very\ top
December

On-campus lessons restarted at the end of November with lectures and small-group tutorials, some of them dedicated to discuss the videotaped lessons selected by the student–teachers to this purpose. Using a previously prepared report card as a prompt, Pilar presented the lesson corresponding to the excerpt analysed above. Her card read ‘I worked hard preparing the activity and the materials but I don’t know why I am not sure about the results’. Pilar’s brief introduction was followed by the viewing of the episode by the group. The viewing was followed by a lively small-group discussion where problems were discussed and ideas for improvement suggested (Source: instructor’s field notes).

January

At the beginning of January, Pilar handed in her first self-reflective report (R1), where she analysed the lesson corresponding to Excerpt 1. A number of fragments which are representative from different sections in that paper will be briefly dealt with following the order established by the student–teacher.

First, Pilar uses the Introduction mainly to define the two objectives of her report (Passage 1, emphasis added).

**Passage 1. Objectives**

| 57. MS(?) | [a la derecha] |
| 58. Irene | **allí** ((points at a certain item on the chart)) |
| 59. Mireia | [((points at a certain item of the chart and then raises her hand)) |
| 60. Helena | **[sí]** |
| 61. Pilar | **Fani** |
| 62. Antoni | [ah] (.) **no** |
| 63. Blanca | [((points at a certain item on the chart)) |
| 64. MS(?) | **jo!** (.) **jo!** |
| 65. Irene | **[me]** **me** |
| 66. Pilar | “you will” ((hands Fani a card)) (0.4) **so** (0.4) |
| 67. Helena | **[has de venir aquí]** ((gazes at Fani)) (.) |
| 68. Pilar | **you have to come here** |
| 69. Irene | **(gazes at the class)) (.)** |
| 70. | **and tell us** (1.0) **i dir-los-hí** ((gazes at the class)) (.) |
| 71. | **and tell them** |
| 72. Irene | this is the sun (.) okay? (1.0) |

There are two objectives in doing this observation: the first one is to be aware of the real amount of the students’ exposure to FL in this class (…); and the second one is to use this study to improve this aspect in my future classes by using strategies which increase the amount and the quality of learners’ exposure to FL and thus, also improve the learners’ chances of making good progress.

Three ideas stand out from this statement of intent: (a) the amount of exposure to English was limited in the lesson observed; (b) both quantity and quality of exposure...
to the FL play an important role in Foreign Language Acquisition (FLA) and (c) the study will allow the student–teacher to improve these two aspects.

The transcript’s (Section 2, p. 1) early position in the report also suggests that the conversational data have played a prominent role in Pilar’s reflective work. It contains exclusively verbal data in the form of standard text (Figure 2). On the other hand, the students’ non-verbal and verbal attempts to contribute to the lesson go unnoticed.

Her Analysis (Section 3) begins with a question formulated in the first person which accepts the fact that the student–teacher used too much L1. She answers her question using her fresh memories of the event: the pressure of time made her forget that the true goal was learning (Passage 2).

Passage 2. The real objective

“Why do I use so much L1? (...) (the reason) that may explain why I used to translate so much was the pressure due to the lack of time. (...) I thought I had to finish all the activities I had prepared (...). This led me to forget that the real objective of the classes was to make students learn, independently of the number of activities (...)” (My emphasis)

From then on, Pilar sets to do some bibliographical research on how to improve her communication skills in teaching contexts. The theoretical constructs she prioritises include Comprehensible Input and Affective filter (Krashen 1982) and Negotiation of meaning (Long 1983). Consistent with them Pilar produces a list of strategies – in the form of teaching tips for action (Passage 3) – to improve the quantity and quality of the input she provides students with. One of those tips reveals Pilar’s discovery of the importance of wait time.

Passage 3. Some of the tips listed by Pilar

Teacher’s talk:
- Use simpler vocabulary and syntax
- Repetitions
- Periphrasis and hyperonyms
- Voice (tones)
- Adapting the level of complexity of the speech
- Reduce the speed of the messages, if necessary
- Introduce more pauses
- A generous amount of waiting time should be allowed (minimum: 8 seconds)
- Visual support:
- Gestures and facial expressions
- Give the oral instructions also in written
- Drawings, images …

(...)
In spite of the importance Pilar attributes to input, she has also been able to find support for the use of the L1. Accordingly, she devotes one whole section to the ‘Justified use of L1’, which concludes with a list of contexts where the use of the L1 is ‘correct’. Finally, the student–teacher manages to self-assess her performance against the criteria on the list (Passage 4).

Passage 4. ‘Correct uses of the L1’

- maintain motivation
- provide context
- promote full understanding when it is essential
- allow them to use L1 in interaction, although the teacher uses the FL.
- establish limits between different sequences of the discourse

- check students’ comprehension (…)

In the video, some correct use of L1 can be seen in turns 17, 36 and 38 because I use L1 not to translate something that I have already said in English, but to demand students to translate these words into English (…)

March

January and February were spent in lectures, tutorials and visits to the Professional Development Schools (PDS). The second period of internship began in March. Excerpt 2 belongs to the second lesson on a unit on Pressure taught to a class of 30 15-year-old students. For them, this unit is their first experience with CLIL. Figure 3 corresponds to L.23 in the transcript.

Pilar begins the lesson trying to connect the contents discussed the previous day with the new contents, and is determined to do so by engaging students in a teacher-led conversation. In order to achieve her two-fold goal, she uses a variety of conversational resources, including the pervasive use of questions instead of direct
Excerpt 2. Pressure.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pilar do you (.) remember yesterday we talk about the <strong>pressure</strong>? (7.3)</td>
<td>((Pilar writes ‘pressure’ on the blackboard))</td>
</tr>
<tr>
<td>2.</td>
<td>Pilar and↓ ((looks at students))</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Pilar we did some <strong>exercises</strong>↓ ((points at dossier)) (.) you know? (0.6)</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Pilar to (.) <strong>know</strong>↑ (.) the definition of <strong>pressure</strong>↓ ((points at the word ‘pressure’ on the blackboard))</td>
<td>(1.0)</td>
</tr>
<tr>
<td>5.</td>
<td>Pilar does anybody remember? (.) what we said yesterday? (0.7)</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Pilar about pressure? (1.2)</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Pilar do you remember? (1.5)</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Pilar anyone? (1.5)</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Pilar in English? (.) Catalan? (.) don’t worry↓</td>
<td>(1.7)</td>
</tr>
<tr>
<td>10.</td>
<td>Pilar do you remember (0.4)</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Pilar the definition of pressure? ((points at the word ‘pressure’ on the blackboard))</td>
<td>(1.1)</td>
</tr>
<tr>
<td>12.</td>
<td>Claudia ((raises her hand))</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Claudia</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Claudia <strong>la pressió</strong> (.) és la relació que hi ha entre la <strong>superfície</strong> (0.6) i::: la <strong>força</strong>↓</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Claudia <strong>pressure is the relationship between surface and force</strong></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Claudia (.) very good↓</td>
<td>(0.8)</td>
</tr>
<tr>
<td>17.</td>
<td>Claudia in this definition that Claudia has said↓ ((points at Claudia while looking at students)) (0.5) does anybody know any word in English?</td>
<td>(1.1)</td>
</tr>
<tr>
<td>18.</td>
<td>Claudia</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Sandra ((reads out)) <strong>pressure</strong> (0.3) is the (0.3) m: rela- (0.6)</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Sandra <strong>relationship between</strong> (0.4) c:::hrm (0.3) <strong>force</strong> +‘forœe’ +↑</td>
<td>(0.4)</td>
</tr>
<tr>
<td>21.</td>
<td>Pilar <strong>force</strong> +fœrs +↓</td>
<td>(0.9)</td>
</tr>
<tr>
<td>22.</td>
<td>Sandra ((finishes reading)) <strong>force</strong> +fœrs+ (.) and <strong>surface</strong>↓</td>
<td>(0.6)</td>
</tr>
<tr>
<td>23.</td>
<td>Pilar very good↓</td>
<td>(0.6)</td>
</tr>
<tr>
<td>24.</td>
<td>Pilar and do you remember some <strong>example</strong>? (.)</td>
<td>(0.7)</td>
</tr>
<tr>
<td>25.</td>
<td>Pilar that we did yesterday? (1.1)</td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Pilar</td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>Pilar do you remember the <strong>flat shoes</strong>? (.) and the <strong>high heeled shoes</strong>? (3.0) ((Pilar writes ‘flat shoes’ and ‘high heel shoes’ on the blackboard))</td>
<td></td>
</tr>
</tbody>
</table>

commands to set her demands, exact repetitions, reformulations, dissociating and regrouping demands, emphasis, writing on the blackboard, gaze and a generous amount of wait time after each time she defines or redefines her demand. The students’ reluctance to take the floor in spite of the many opportunities offered does
not seem to discourage the teacher, who eventually tries out one more strategy by reminding the students that the use of the L1 is acceptable. The first time she does so it has the function of eliciting the target definition (L.18), where the main problem lies in its conceptual density (Gajo 2007), and once she obtains it in the L1, she challenges the students to encode the definition into the L2. By doing so, temporarily, she manages to dissociate the conceptual challenge from the communicative challenge, and deal with each of them in isolation. The second time she encourages the use of the L1 has the purpose of remediating, the opacity (Gajo 2007) of everyday terms in the FL (flat shoes) by eliciting a translation from the students. It is interesting to highlight that she manages to accept the use of the L1 while she is able to stick to the target language all through the excerpt. All the conversational strategies deployed by the teacher allow the class to evolve from being an attentive but silent community at the very beginning of the lesson to a participatory one, where it has been clearly established that English is the default language. Likewise, in this plurilingual environment, the L1 is also welcome.

The lecture continues through triadic dialogue achieving a fluid interaction, thanks to the students’ contribution the jointly constructed discourse (Walsh 2006; Wells 1999).

Recap 1: developments in CIC from November to March

Task design in P1 shows that Pilar was able to predict some of the specific challenges that CLIL was posing on her students, such as the difficulties they would face to contribute verbally to the development of the lesson given their limited command of English: the information the students obtained from the cards, had been predicted, should act as a support for their contributions to an interactive teacher-led explanation.

On the other hand, her excessive concern to comply with the schedule in her lesson plan seems to have led her towards an overuse of L1 and the construction of a monological explanation, when the purpose of the activity was to construct an interactive dialogical one (Wells 1999).

In P2, Pilar introduces a number of improvements in the way she conducts the lesson including the use of learner-convergent language; a variety of scaffolding procedures displayed, such as dissociating the content/language challenges or grading her demands up and down; the efficient management of wait time and turn allocating procedures; the way she deals with affective factors by acknowledging credit to individual students or removing emotional pressure from the students and the minimal but highly efficient use of L1 to sort out linguistic problems and ensure conceptual accuracy.

The way the student–teacher articulates all these strategies result into two major accomplishments. (a) Her capacity to lead the lesson almost entirely in the target language. The coincidence between the resources now incorporated and those listed in R1 (Passage 3) leads to conclude that becoming aware of the many possibilities available for the efficient use of the L2 and the L1 has had an impact on the way the student–teacher addresses learners.

(b) The student–teacher’s newly gained ability to configure the necessary conditions to make it possible for the students to contribute to the completion of the initiation-response-feedback (IRF) sequences in spite of their extremely limited
command of the language shows a general improvement in the way she articulates conversational and multimodal resources to provide students with interactional space.

May

Pilar’s second self-reflective paper (R2) comprises four main sections: an introduction, data – which included analysis – discussion and conclusions, plus annexes and bibliography.

In the introduction, she presents the paper as part of an action-research process and states the focus of the paper and the questions that guide her inquire (Passage 5).

Passage 5. R2’s questions

“Finally the last step of this action-research process is to do this second self-observation task to check if all this has helped me to improve as a teacher. More specifically I have tried to answer these questions: a) Have I increased the amount of input in my classes?; b) Have I increased the quality of this input?; and c) Which strategies did I use to do this?” (Emphasis added).

As for her handling of data, Figure 4 shows a fragment of the transcript produced corresponding to a stage in the lesson soon after that transcribed in Excerpt 2.

Some of the conversational features incorporated in R2 which were absent in R1 are: short, long and very long pauses; vowel elongation; intonation patterns; pronunciation; teacher’s non-verbal behaviour and code switching. The double signalling of L1 utterances (italics and highlights) reveals the degree of concern that this issue provokes in the student–teacher.

To organise her analysis, she uses the list of strategies produced in R1 to assess her own performance against them locating evidences in the transcript to support her claims and to identify areas which need ‘to be improved’.

Figure 5 shows how aware the student–teacher is of the way she has bettered the way she modifies her speech using ‘simpler vocabulary and syntax’, ‘repetition’, ‘periphrases and hyperonyms’, ‘pauses’, ‘wait time’ and other multimodal resources not cited here for lack of space. As for her use of the L1, Passage 6 shows an instance of the analysis she performs in relation to this issue.

Figure 4. R2’s transcript.
Passage 6. Justified use of the L1

In turn 25, I use Catalan not to translate something that I have already said in English (like I used to do in the first practicum), but to ask students to translate these words into English. I think this is a justified use of L1. (See transcript in Figure 4).

June. MD (R3)

By the end of June, Pilar handed in her MD (R3), a 44-page-long report which revisits the data in R1 and R2 approaching them from a broader perspective. For example, she incorporates a concern for the students’ role in the collective process of teaching and learning, as well as for the attainment of the content-related goals (Passage 6, emphasis added). The use of the third person to refer to herself is also a noticeable variation which denotes effort to detach from the data.

Passage 6. R3’s questions

3. Has the student–teacher increased the number of strategies the teacher uses to achieve an effective interaction?

4. Do these strategies promote possibilities for students’ acquisition of knowledge, not only language but also content (…)?

In keeping with the former goals, the revised version of the transcripts incorporates the description of relevant actions performed by the students which may sign, for example, the difficulties they are experiencing at exact points in the lesson and/or the strategies they are using to overcome them (see ‘ACTIONS’ 8 and 9 in Figure 6).
Her analysis (Section 6) follows a sequential organisation. There, as well as in the Discussion (Section 7) and Conclusions (Section 8), Pilar adds to the ones used before a number of constructs absent in previous reports which help her attain deeper levels of conceptualisation and understanding of the intricacies of classroom interaction in CLIL settings; among them: Scaffolding (Wood, Bruner, and Ross 1976), Zone of Proximal Development (Vygotsky 1930/1978), Situated Learning (Mondada and Doheler 2004), Focus on content vs. Focus on language (Long 1991; Mohan 1986) or Turn taking and Repair (Seedhouse 2005). She is also capable of relating some of the most abstract concepts to the practical problems she has been able to identify in her lessons, and write a complementary, more elaborated ready-to-use list of do’s and don’ts (Passage 7).

**Passage 7. Opportunities to seize**

Moreover, provided that interaction also contributes to create the context, the teacher should also accept the changes occurring during the development of the task and look at them as an opportunity to learn and teach, and not as an error on the students’ performance or (a problem) in the planning of the unit.

Her understanding of the CLIL classroom as a plurilingual environment and how the L1 may contribute to deal with the density of the content are also enhanced. This last accomplishment is illustrated in Passage 8, where turn 2 (Figure 6) is being analysed.

**Passage 8**

Claudia answers (...) in Catalan (...). In this turn, we have evidence of the student’s cognitive activity in the lengthening of the sounds and the pauses. (...) if any language different from English would have been forbidden, it would have been more difficult to achieve the students’ participation because they would have had to add the difficulty of the language to the difficulty of the content of the answer demanded by the teacher. (Emphasis added)

**Recap 2: development in Pilar’s reflection from R1 to R3**

In R1 (January), Pilar was able to identify a problem in her performance, formulate it in an operational way, find relevant literature on the matter and produce a set of conclusions in the form of teaching tips that would help her to overcome the problem identified. In R2 (May), she checked her new data against the formulated tips. In R3 (June), she approaches the same conversational data overcoming her exclusive concern for her own performance and manages to put the learners’ contributions in focus as well.

A combination of several factors may provide an explanation for this huge step forward. First, the prominence given to ‘wait time’ in R1 hints that the evolution started there at a very practical level even if she was not able to theorise about it. Second, deep reflection demands time and concentration, which Pilar seems to have found in the last weeks of the course, when lectures were over. Third, learning to teach and learning to reflect on teaching in academic ways seem like two daunting demands; it appears that the student–teacher could not progress in both of them at the same rate and needed to prioritise one thing at a time. Fourth, reflection also demands distance; the fact that Pilar was not involved in any more teaching and that
she went over the data for a second time surely contributed to the detachment she shows in R3. Last but not least, the academic demands set by the MD itself may have played a relevant role in how Pilar placed herself in front of the assignment, how she approached it and the outcomes that derived from it.

**Conclusion**

In P1, Pilar plans an activity aimed at favouring the students’ participation. Unfortunately, the way the activity is enacted – including inefficient use of L1, insufficient wait time or inability to make sense of the students’ reactions – shows that Pilar is not able to grasp the difficulties experienced by the students and interactively adapt her explanation accordingly (Escobar Urmeneta and Evnitskaya, forthcoming b). Recording, selecting, transcribing and analysing her own practice allowed the student–teacher to modify her own classroom practice as a CLIL teacher. Thus, in P2, Pilar makes good progress in her use of learner-convergent language and in the way she monitors the class and paces her agenda introducing an array of conversational strategies, thus enabling learners to play a more prominent part in the jointly constructed discourse (Walsh 2006).

One of those strategies which deserve special attention is code choice. The role that the L1 plays in the learning of a FL is a very much debated one (Cook 2001; Levine 2011; Macaro 2001, among others). This issue becomes a particularly hot one in content-driven CLIL classrooms where the learning of the content-matter is at stake (Moore, Nussbaum, and Borràs 2012; Nussbaum and Cots 2011). In this respect, the analysis shows that the way the L1 was used in P1 (the student–teacher’s mechanical self-translation in order to speed up the lesson) was counterproductive as it favoured neither comprehension nor fruitful participation. Conversely, P2 shows that by allowing learners to express their content understandings in L1, the students were able to overcome the block they were facing due partly to their poor command of the language, partly to the density of the content.9 This case in point illustrates that it would be incorrect to attribute Pilar’s improvement in CIC to the simple use of a set of teaching strategies which will automatically offer predictable results (i.e. use vs.

<table>
<thead>
<tr>
<th>TURN</th>
<th>NAME</th>
<th>UTTERANCES</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PIL</td>
<td>very good! (...) in this definition [7] that Claudia has said/ () does anybody know any word in English/ (...) Sandra</td>
<td>[7] The teacher points at the student who has just talked.</td>
</tr>
<tr>
<td>4</td>
<td>SAN</td>
<td>the pressure is the nla- rrelationsip+/ [8]</td>
<td>[8] The student is reading the answer in the dossier.</td>
</tr>
<tr>
<td>5</td>
<td>PIL</td>
<td>yes</td>
<td>[9] The student does not read.</td>
</tr>
<tr>
<td>6</td>
<td>SAN</td>
<td>between () eh::: +forse+</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>PIL</td>
<td>force\ (. ) and the surface</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6. R3’s transcript.
avoidance of the L1). On the contrary, the differences observed between P1 and P2 show that it is how conversational and multimodal resources are articulated in a locally situated manner to respond to the particular needs made relevant by participants in the course of the activity which made Pilar succeed in accomplishing the interactively constructed explanation so hardly sought for (Escobar Urmeneta, in progress).

We can attribute this developed sensitivity to the interplay of the transforming power of the repeated cycles of teaching practice and reflection and the distinct demands created by the CLIL context, which, combined, lead the student–teacher to experiment alternative ways of doing in order to overcome the acutely perceived difficulties caused by the FL (Escobar Urmeneta 2009).

It was not the object of the paper to find out whether Excerpt 2 is an exemplary piece of teaching; however, noteworthy, the progress made by Pilar in these few weeks is, the road ahead is long and the challenges as a teacher, many. But the maturity the student–teacher reaches at the end of the course in the way she deals with data and literature suggests that she has gained sufficient autonomy to be able to take the lead of her own education. For all this, it can be concluded that the course makes a potentially valuable lifelong training programme.

The analysis also shows how CLIL teachers may benefit from procedures, tools and constructs developed in the field of Applied Linguistics in order to improve their professional skills in multilingual environments. The ones identified in this study are basic transcription of selected extracts, familiarity with central concepts related to SLA when perceived as relevant by the student–teachers and tools from CA.

To finish with, one extremely relevant pedagogical issue which has been marginally referred to in the paper is that of the advisability of offering content-driven CLIL courses to low-proficiency students (see Denman, Tanner, and de Graaff 2013), who often tend to be students coming from less favoured sociocultural milieus. Although this study cannot be conclusive on this issue, the conversational data examined here suggests that when there is a will, there is a way. It also unmistakably shows that the challenges teachers and learners face in these contexts are extremely high. Undoubtedly, focused research on this issue is needed.

Notes
1. Inquiry-based professional development in CLIL has also been vindicated by Coyle, Hood, and Marsh (2010).
2. Academic Discourse in a Foreign Language: Learning and Assessment of Science Content in the Multilingual CLIL Classroom, funded by the Spanish Ministry of Science and Innovation (Reference: EDU2010–15783).
3. Although the Units designed by Pilar under the supervision of her mentors made abundant use of peer and group work, lab work and information and communication technologies (ICT), the excerpts she selected for discussion correspond to teacher-led sequences, as tends to be the case among novice teachers.
4. For detailed line-by-line CA of the excerpts, see Escobar Urmeneta (in progress).
5. Conversational data were gathered and transcribed by Escobar Urmeneta, Evnitskaya, Fuentes and Jiménez.
6. The term ‘L1’ is used by the student–teacher to refer to Catalan. However, for some of the students in the two groups observed Catalan may not have been the/a family language.
7. The turns cited in passage 4 correspond to a later stage in the lesson not transcribed here. The turn numbers in all passages taken from the student–teacher’s reports are the original ones assigned by her. In order to avoid confusion, I am using ‘lines’ instead of ‘turns’ to
locate conversational phenomena in the researchers’ more elaborated transcripts (Excerpts 1 and 2).

8. Turn numbers as assigned by the student–teacher. Turn 1 corresponds to lines 1–25 as transcribed in Excerpt 2. Turn 11 to a later stage in the lesson not transcribed here. Turn 23 appears in the student–teacher’s transcript in Figure 4.

9. The presence of the camera may have also contributed to the initial reserve shown by the students.

References


**Appendix 1: Transcript conventions**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>()</td>
<td>Unmeasured (micro-)pause of less than two-tenths of a second.</td>
</tr>
<tr>
<td>(1.5)</td>
<td>Measured pauses in tenths of seconds.</td>
</tr>
<tr>
<td>=</td>
<td>‘Latching’ (no gap) between utterances produced by the same speaker or different speakers.</td>
</tr>
<tr>
<td>overlap</td>
<td>Start of concurrent speech.</td>
</tr>
<tr>
<td>[word]</td>
<td>Underlining indicates speaker’s emphasis.</td>
</tr>
<tr>
<td>\textit{word}</td>
<td>Talk which is softer than that surrounding it.</td>
</tr>
<tr>
<td>↓</td>
<td>Falling intonation.</td>
</tr>
<tr>
<td>↑</td>
<td>Low-rising intonation, suggesting continuation.</td>
</tr>
<tr>
<td>?</td>
<td>Rising intonation, not necessarily a question.</td>
</tr>
<tr>
<td>cu-</td>
<td>Sharp cut-off.</td>
</tr>
<tr>
<td>:</td>
<td>Stretching of the preceding sound, more colons more stretching.</td>
</tr>
<tr>
<td>Xxx</td>
<td>Unintelligible fragment with one ‘x’ equal to one syllable.</td>
</tr>
<tr>
<td>word ((laughs))</td>
<td>Utterances produced in any other language that is not English.</td>
</tr>
<tr>
<td>courier new</td>
<td>Translation into English of original L1 utterances.</td>
</tr>
</tbody>
</table>