CLASSE.ROOM INTERACTIONAL COMPETENCE IN CONTENT AND LANGUAGE INTEGRATED LEARNING

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This chapter problematizes the Classroom Interactional Competence (CIC) of learners and teachers working in Content and Language Integrated Learning (CLIL) contexts. Through Multimodal Conversation Analysis (CA), we consider how CIC is enacted in dialogues which focus on both subject content and English. Our analysis reveals that (a) teachers’ deployment of multimodal resources ensures comprehension and self-selection; (b) teachers’ questions and evaluative feedback may play a major role in guiding the students; (c) the scarcity of teacher elicitations aimed at more elaborated learner responses may limit the development of academic discourse; and (d) groupwork may become a privileged environment for students to deploy and develop L2 interactional resources.

Introduction

In this chapter, we explore and conceptualise the ways in which Classroom Interactional Competence (CIC) (Walsh 2011) is enacted by teachers and learners in Content and Language Integrated Learning (CLIL) contexts. We demonstrate how a better understanding of classroom discourse can have a positive impact on learning, especially where learning is regarded as a social activity strongly influenced by involvement,
engagement and participation; where learning is regarded as doing rather than having (c.f. Larsen-Freeman 2010).

CLIL is used here as an umbrella term which adopts ‘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). CIC is defined as, ‘Teachers’ and learners’ ability to use interaction as a tool for mediating and assisting learning’ (Walsh 2011:130). CIC puts interaction firmly at the centre of teaching and learning and argues that by developing it, both teachers and learners will improve learning and opportunities for learning. The role of CIC has been broadly explored in L2 classroom settings (see Walsh 2006, 2011, 2013), but in this chapter we are concerned to characterize CIC in CLIL contexts, further advancing previous work in this area (See Escobar Urmeneta 2013, Escobar Urmeneta & Evnitskaya 2013, 2014).

**Classroom Interactional Competence**

The construct Communicative Competence (CC) (Hymes 1972) revolutionized our understandings of spoken communication and contributed greatly to advances in language teaching methodology, especially concerning speaking (Canale & Swain 1980). As can be inferred from the testing literature, one major disadvantage of CC, is that it focuses on solo performance, as if communication operated at the level of the individuals (Kramsch 1986, Young 2008). Yet, communication is not the sum of the abilities of individual speakers but a joint enterprise which requires the speakers’ as
well as the listeners’ collective and reciprocated competence. Thus, whereas listeners play a key role in demonstrating understanding and in clarifying meaning, checking, etc., it is the speakers’ responsibility, for example, to adjust their speech to the needs their interlocutors make apparent. Essentially, in any conversation (or indeed any spoken interaction), speakers and listeners have equal responsibility to ‘make it work’ and their ability to do this depends very much on their level of interactional competence (IC), (Kramsch 1986), rather than on their CC.

Young’s (2008:100) definition of IC as ‘a relationship between participants’ employment of linguistic and interactional resources and the contexts in which they are employed’ stresses the relationship between ‘the linguistic and interactional resources’ used by interlocutors in specific contexts. Clearly, this relationship is an important one and includes, for example, interlocutors’ ability to take a turn, interrupt politely, and acknowledge a contribution, in addition to their ability to make appropriate use of vocabulary, intonation, verb forms and so on. It is the relationship between linguistic and interactional resources which is crucial to effective communication.

A number of attempts have been made to identify specific features of IC. Markee (2008), for example, proposes three components: (a) language as a formal system, including grammar, vocabulary, pronunciation; (b) semiotic systems, including turn-taking, repair, sequence organisation; and (c) gaze and paralinguistic features. Hall & Pekarek Doehler (2011) emphasise how interactants structure their participation, and negotiate and accomplish roles and role relationships as the interaction unfolds, whereas McCarthy (2005) proposes the term confluence to define the act of making spoken language fluent together with another speaker. Confluence is highly relevant to the present discussion since it highlights the ways in which speakers attend to each other’s
contributions and focus on collective meaning-making. It is also a concept which lies at
the heart of most classroom communication, where interactants are engaged in a
constant process of making sense of each other, negotiating meanings, assisting,
clarifying and so on.

Recent studies of IC have looked at the ways in which learners use a range of resources
to interact proficiently and participate competently in different L2 encounters. Hall &
Pekarek Doehler (2011) argue that learners, rather than being ‘deficient’, deploy a range
of interactional competencies which need to be described and understood. Other studies,
brought together under the sub-discipline known as CA-SLA (or CA-for-SLA)
emphasize the fact that IC is context specific, adaptive --that is, very closely to speaker
intent and to audience-- flexible and concerned with the ways in which interactants

CIC draws heavily on the theoretical assumptions and empirical results presented above
and focuses on the ways in which teachers’ and learners’ interactional decisions and
subsequent actions enhance language learning and learning opportunity. Yet the CLIL
classroom is an environment where interaction is organised according to singular
patterns that aim to ensure that not only the business of ‘learning a language’, but also
that of ‘learning academic content’ get done. While it is true to say that CIC is highly
context specific, not just to a particular class and subject-matter, but to a specific
moment in the discourse, there are a number of features of CIC which are common to
all contexts. First, teachers may demonstrate CIC through their ability to use language
which is convergent to the pedagogic goal(s). Essentially, this entails an understanding
of the interactional strategies which are appropriate to teaching goals and which are
adjusted in relation to the co-construction of meaning and the unfolding agenda of a lesson. This position assumes that pedagogic goals and the language used to achieve them are inextricably intertwined and constantly being re-adjusted (see, Seedhouse 2004; Walsh 2003).

A second feature of CIC, which is common to all language teaching and language learning contexts, is the extent to which it facilitates interactional space: learners need space for learning to participate in the discourse, to contribute to class conversations and, ultimately, to receive feedback on their contributions. Given the fact that extended teacher monologue is practically absent in CLIL settings (Dalton Puffer 2007), understanding how ‘space for learning’ (Walsh & Li 2012) is created and sustained through interaction in CLIL settings is paramount. ‘Space for learning’ is derived from a social perspective on learning, which has its roots, at least in part, in the work of Firth & Wagner (2007), who challenged traditional and long-standing views of both language and learning. They argued that learning should be seen as a social process and that language should be viewed as a complex, dynamic system which is locally managed by interactants in response to emerging communicative needs. It is a view of learning which resonates with much more established sociocultural theories which emphasize its social nature. Learning, under this perspective, entails dialogue, discussion and debate as learners collectively and actively construct their own understandings in and through interactions with others who may be more experienced.

A third feature of CIC in a CLIL context is the teacher’s ability to create a safe environment where students are not afraid of being penalized or mocked by peers, and where students develop a positive self-image through their interactions. This observation rests on the notion of face (Goffman 1955), defined as ‘the public self-
image that every member wants to claim for himself” (Brown & Levinson 1987:61).

Face is comprised of both positive face, or the need to obtain favourable or appreciative reactions from fellow members of society, and negative face, or the need to preserve a ‘freedom of action and freedom from imposition’ from others (Brown & Levinson 1987:61). By face-work, we refer to the set of actions a participant performs in order to help oneself or other participant(s) to “maintain” and “enhance” face, that is, their dignity, by either avoiding a threatening situation, or by using certain rituals in order to repair the damage potentially inflicted on a participant after a criticism or a disagreement, for example, have been formulated. That is, interactants “allow” one another a certain type of face which implies that everyone’s face depends on everyone else’s conversational behaviour.

In the CLIL classroom, as well as in any face-to-face encounter, participants tend to experience immediate emotional responses to the face that other interactants “allow” them with their conversational actions. In a classroom, cooperation on the part of all interactants is needed to maintain face, as ‘everyone’s face depends on everyone else’s being maintained’ (Brown & Levinson 1978:61). The sensitiveness of the (CLIL) teacher to recognise possible threats to the students’ public self-image, such as her savoir faire in minimising the consequences of a possible loss of face, and her skills in building up positive face, and therefore achieving an atmosphere of mutual confidence, are crucial in the creation and sustaining a positive and purposeful working milieu.

**CIC in a CLIL classroom: an illustrative study**
In order to describe teacher-class as well as learner-learner interactional processes, we draw on four extracts taken from the LED corpus recorded in Catalonia, specifically selected to help develop understandings of how CIC is enacted in CLIL classrooms. Three of them correspond to teacher-class interaction, and one to learner-learner interaction in groupwork (GW). The excerpts were transcribed using Transana software (Woods & Fassnacht 2007). Detailed transcripts of talk and paralinguistic features were made, employing conventions based on Jefferson (2004) (see Appendix 1), and relevant nonverbal actions were described using line-by-line narratives. The data were analysed using tools from multimodal Conversation Analysis (CA) (see also Evnitskaya and Jakonen in this volume) as a means of developing understandings of the ways in which CLIL teachers and learners establish joint understandings, and in order to characterise CIC in CLIL environments.

**CIC in teacher-class interaction**

In extract 1 (Escobar Urmeneta 2013), a class of thirty fifteen-year-old Catalan/Spanish bilingual students in metropolitan Barcelona are having their first experience of CLIL. The teacher (TEA) begins the science lesson on ‘Pressure’ by trying to establish connections between the previous day’s lesson and the new material to come. The focus of the lesson (science through interaction in the L2) is observable in the teacher’s efforts to get her message across and her reiterated attempts to engage the students in academic conversation, in spite of their very limited command of English and their inexperience in CLIL.
Extract 1.

1  TEA do you (.) remember yesterday we talk about the pressure? (sweeping gaze)
2  (7.3) ((TEA writes ‘pressure’ on the blackboard))
3  TEA and (looks at students)
4  (1.1)
5  TEA we did some exercises ((points at dossier)) (. ) you know?
6  (0.6)
7  TEA to (. ) know (. ) the definition of pressure ((points at the word
8  ‘pressure’ on the blackboard))
9  (1.0)
10 TEA does anybody remember? (. ) what we said yesterday?
11 (0.7)
12 TEA about pressure?
13 (1.2)
14 TEA do you remember?
15 (1.5)
16 TEA anyone?
17 (1.5)
18 TEA in English:? (. ) Catalan:?: (.) don’t worry
19 (1.7)
20 TEA do you remember (0.4)
21 the definition of pressure ((points at the word ‘pressure’ on blackboard)
22 (1.1)
23 CLA (raises her hand))
24 (0.7)
25 TEA CLA
26 CLA la pressió (.) és la relació que hi ha entre la superfície i:::la força
Translation:
pressure is the relationship between surface and force
28 TEA ((nods)) very good
29 (0.8)
30 TEA in this definition that CLA has said ((points at CLA while looking at
31 students)) (0.5) does anybody know any word in English?
32 (1.1)((SAN raises hand))
33 TEA SAN
34 (4.6) ((SAN checks her notes))
35 SAN ((reads out)) pressure (0.3) is the (0.3) m: rela- (0.6)
36 relationship between (0.4) e:::hm (0.3) force +'forθe+
37 (0.4)
38 TEA force +fors+
39 (0.6)
40 SAN ((finishes reading)) force +fors+ (. ) and surface
41 (0.6)
42 TEA very good

In order to achieve her two-fold goal (science and language), the teacher uses a range of
conversational resources, including the pervasive use of questions to set her demands
(1, 10, 12, 14, 16, 21); exact repetitions (12, 20, 21); reformulations (7,14, 16) and the
use of the blackboard (2, 21), which allow her to share her pedagogical agenda with the
class. In addition, the inclusive deictic ‘we’ (5, 10); ‘you’ (1, 5, 14, 20) and other
discursive ‘anybody’ (10); ‘anyone’ (16), and multimodal resources such as gaze (1, 3) are employed to appeal and include the whole class in the conversation. Note too how the teacher’s pauses (4, 6, 9, 11, 13, 15, 17, 19) are used to provide learners with opportunities to take a turn. Students’ reluctance to self-select in spite of the many opportunities offered does not lead the teacher to succumb to the temptation of answering her own questions, and eventually she tries out one more strategy by reminding the students that the use of L1 is acceptable. This time CLA takes the floor (26), offering a conceptually correct definition in L1. After explicitly acknowledging CLA’s contribution by citing her name (30) --thereby generating positive face-- the teacher challenges the students to encode it in L2, obtaining SAN’s immediate self-selection (32) and the L2 definition (35-40). The online conversational decisions adopted by the teacher in order to handle challenges of a communicative, conceptual, and affective nature succeeded in engaging students in the co-construction of the explanation and in clearly establishing that, in spite of all their difficulties, participation from students is always expected. Her ability to use L2 throughout, while facilitating the use of L1 as a scaffold to conceptualization in the L2, is also noticeable.

The discussion so far has identified two features of CIC: the extent to which language use and pedagogic goals converge, and space for learning. Another important feature of CIC is that of shaping, which involves taking a learner response and doing something with it rather than simply accepting it. For example, a response may be paraphrased, using slightly different vocabulary or grammatical structures; it may be summarised or extended in some way; a response may require scaffolding so that learners are assisted in saying what they really mean; it may be recast (c.f. Lyster 1998): ‘handed back’ to the learner but with some small changes
included. By shaping learner contributions and by helping learners to really articulate what they mean, teachers are performing a more central role in the interaction, while, at the same time, maintaining a student-centred, decentralised approach to teaching. An example of this process of *shaping* is presented in extract 2 below (Escobar Urmeneta & Evnitskaya 2013), which comes from a biology lesson on Amoebas. The class is a group of 10 twelve-year-old Catalan/Spanish bilingual students from a state-funded school based in a middle-class neighbourhood in central Barcelona. As in the previous extract, the class is checking a true-false exercise designed to review previously covered content (Note that some lines have been deleted for the sake of brevity).

*Extract 2.*

1. TEA: JAU (. ) the first one?
2. JAU: (reads) amoebas have a nucleus and a cytoplasm. e:::
3. TEA: is it true or false?
4. JAU: true
5. QUI: no false false
6. TEA: why? is true or why is false?
7. you have to tell me why (it)~
8. MIQ: it’s true
9. TEA: why it’s true? ((turns to RIC and JAU))
10. JOA: becau::se
11. JAU: I found i::t ((looks at TEA))
12. ((raises shoulders and hands, slightly shakes head))
13. JOA: they are:
14. TEA: (laughs, shakes head) no no
15. JOA: they are:
16. TEA: this is not a reason ((looks at JAU))
17. JOA: <eukaryotic cells>
18. TEA: very good ((nods))
19. amoebas are:: or have got eukaryotic cells.
20. so=
21. ARN: it’s~
22. TEA: =they have got a nucleus and a cytoplasm.
23. it’s true

After a brief introduction to the activity, the teacher starts the public correction of the homework revision exercise by passing to JAU the interactional floor (1) and different students volunteer ‘True’ or ‘False’ monosyllabic answers (4, 7). Not satisfied, the teacher asks a ‘why’ question (11, 12). JAU’s contribution (18) – truthful and linguistically flawless - is explicitly rejected for its lack of relevance from the point of
view of the content-matter (22, 24), whereas JOA responds by building up a significant and formally correct argumentation from the point of view of the content-matter and the language through a set of four non-consecutive lines (17, 20, 23, 25). Only then does the teacher provide evaluative feedback (26), which is followed by her reformulation of JOA’s multiple utterances into one sentence (27) and further elaboration on the topic by adding relevant additional information (28, 30) which may help JOA and the class understand the significance of the somewhat cryptic term (eukaryotic) used by the student.

With her exhortation to supply an explicitly reasoned response, the teacher implicitly negatively evaluates the answers provided by the students so far, whereas, concurrently, affords them an opportunity for a more extended and complex answer. By doing so, she expands the space for learning and scaffolds the type of school discourse which is accountable for the discipline. Later, the teacher takes advantage of the feedback move to return JOA’s contribution somewhat improved and, additionally, to clarify its meaning for JOA’s benefit and that of the whole class.

Extracts 1 and 2 show how the process of ‘shaping’ contributions occurs by repairing learner input, modelling, scaffolding or seeking clarification in order to help learners to go beyond themselves, or re-conduct the flow of talk in the desired direction. In a decentralized classroom in which learner-centredness is a priority, these interactional strategies may be the only opportunities for explicit teaching and occur frequently during the feedback move as shown in extract 2.
What is evident, both from the discussion here and from previous studies, is that feedback is one of the most important interactional practices a teacher can master since it has the greatest potential to influence learning. The ways in which teachers acknowledge a contribution, evaluate it and make modifications is a skill which requires detailed understanding and practice. The teacher-fronted lessons in the LED corpus show that the feedback offered tends to be evaluative, normally comprising a brief comment such as ‘very good’. While this kind of feedback does have its place, more subtle types of shaping are necessary if we are to really help learners communicate their intended meaning. Acknowledgement tokens (typically discourse markers such as right, ok, great, excellent, etc.) may actually close down an interaction and signal the end of an exchange (see extract 1, lines 28 and 42); its disproportionate use may even result in students becoming excessively dependent on the teacher.

Feedback in L2 lessons is often equated with teacher’s repair of errors on morphosyntax or pronunciation. Feedback on formal aspects of the language is also present in CLIL lessons (see extract 1line 38). However, our corpus shows a strong predilection for content teachers to repair, model, scaffold or seek clarification only when factual information related to the content-matter is at stake. In contrast, we observe certain reluctance when it comes to elaborating on students’ contributions, or to soliciting from them better developed, more complicated responses. This tendency seems to be reversed, however, in classes where content and foreign language teachers work in tandem in the design of the syllabus and teaching materials, and where co-teaching is the norm, as is the case in extract 3.

*CIC in learner-learner interaction*
Group-work is a critical strategy when it comes to the development of CIC as it facilitates learners’ interactional space where they can widen their repertoire of interactional resources. Indeed, in most classrooms only in peer-interaction do learners have the chance to exert control over certain interactional features usually in the teachers’ hands, such as interrupting, acknowledging or challenging a contribution, or moving the conversation forward. Extract 3 below is taken from a CLIL algebra lesson in grade 9 in a state secondary school in Barcelona. In this programme the students regularly receive specific training for collaborative work in the English slots, as well as in the Maths lessons, for example, in how to distribute responsibilities among team members or how to disagree politely. The teaching materials (Pallarés & Petit 2009) have been specifically designed to carefully guide the students through the mathematical reasoning process, as well as through the discursive actions needed to articulate the reasoning in the L2 (see lines 3-5 below) through a process of negotiation leading to a common decision (line 38). This includes the presentation of typographically enhanced content-obligatory lexis, grammar patterns and phrases ready to be used (lines 16-17). Two female (SON and JUL) and two male (XAV and FER) Catalan-Spanish bilingual students in their second year of CLIL maths are discussing the best method/s to solve a set of systems of equations (Pallarés 2010). In line (1) SON announces the beginning of step 2 in the task sequence.

Extract 3.
1  SON:  okay (. ) step two
2          (12.0) (( participants concentrated on their notes))
3  SON:  ((reads out)) step two (. ) observe and describe to each other
4          the differences and simila- similarities between the three
5  systems(. ) okay
6          (5.0)
What is immediately obvious from the extract is the amount of interactional work that students engage in to keep the discussion moving and on track and to achieve the academic goals set by the co-teachers. In lines (1-5) SON announces the next step in the activity and reads out the instructions to be followed. The mathematical content of
the task is tackled by JUL (7) ‘the three equations...’ but in (12) SON suggests to start out by copying the equations therefore imposing a shift of topic from ‘task-content’ to ‘task-procedure’. In (13-14, 23-24) XAV contributes to the development of the new topic by expressing his disagreement with SON’s proposal using sophisticated conversational methods to avoid face-threat: initially, XAV (14, 16) seizes the opportunity to indirectly disagree while reminding his teammates of the convenience of using the linguistic clues provided in the teaching materials ‘and if we want we can follow these sentences’. SON’s insistence in copying (19, 22) requires XAV to be more explicit, but still careful in warding off conflict. In (23), for example, he offers a temporary surface agreement ‘yeah’ and immediately after (24) switches into the L1 ‘bueno’ to mark the initiation of his counterproposal, also mitigated by the use of different procedures and eventually toned down with a confirmation request. Once the discrepancy is sorted out (25), the initial topic of conversation ‘first equation’ is re-launched. From then on, all four participants coordinate their verbal actions in order to achieve the common goal: solving the mathematical challenge set in the teaching materials. Lines (34-35-36) are especially interesting as students are able to achieve their goal and jointly develop a new understanding (one similarity among the three equations), co-constructed through the L2.

In terms of the CIC demonstrated in this extract, we can make a number of observations about the interactional resources employed and their impact on the overall flow and coherence of the discussion. It is apparent that all four students manage the turn-taking very well and are able to interrupt, hold and pass turns, in a fashion unlikely to take place in teacher-class interaction. Lines (27-31) are particularly interesting as JUL’s line of reasoning is visible in her talk. The hesitations, false starts and so on are indicative of
the heavy cognitive load caused by the double challenge of mathematical reasoning and putting that reasoning into words. Regarding repair, even though errors do occur, they are largely ignored (C.f. 7, 15, all containing errors in morphosyntax), which Firth (1996) refers to as the ‘let it pass’ principle. Nevertheless JUL’s triple self-repair (the/both, are/have, +æluz+/+æliuz+) in (27-31) indicates the learners’ attention to formal aspects of the language within discourse on the one hand, and their adherence to the preference for self-repair principle (Schegloff, Jefferson & Sacks 1977), on the other. Interruptions (16) and overlaps (12/13, 34/35/36, 38/39) occur frequently, but are supportive and designed to ensure that the interaction flows smoothly in the desired direction. These overlaps and interruptions are examples of what McCarthy (2003) refers to as good ‘listenership’: they signal to a speaker that she has been understood, that the channels are open and that the communication is working well. Essentially, they ‘oil the wheels’ of the interaction and help to prevent trouble and breakdowns from occurring. As a deliberate strategy, overlaps give vital clues to speakers that they are being understood and that something is being communicated. Other tokens of listenership ‘yes’, ‘yeah’, ‘okay’ (17, 23, 32, 37) are also observable in the fragment.

Topic shift and topic progression are managed by the students by echoing previous utterances containing key-words/key-concepts ‘first equation’ (25, 26, 27); ‘two/same variables’ (34, 35, 36, 38, 39) and the procedures presented above. Interactants are genuinely engaged with the topic and succeed in maintaining it from a range of perspectives until the problem is solved. In short, we can say that this is a good example of coherent discourse in which all participants are concerned to engage with and develop a topic to the full.
In extract 3, CIC is also seen in how the learners are able to carry out the discussion almost entirely in the target language in spite of the cognitive difficulties of the task. Only on two occasions do the students switch to the L1, using it as a resource to move the discussion forward (12) and to moderate the disagreement (24) to come.

Another feature of CIC is the coordination of non-verbal actions. In extract 3, students display an array of embodied resources—such as gaze (30, 34), changes in body posture (2, 30, 34) or the use of physical objects at hand (2, 28, 32)—which, in coordination with the stream of the speech, allowed them to take part in the discussion and to bring it to a successful conclusion. Also, at given points in the conversation (2, 39), they simultaneously performed one same non-oral action thus indexing their mutual orientation and their intellectual orientation to a common goal. The interactants also display CICC in their efforts to create and maintain social harmony, which is observable in the face-work (Brown & Levinson, 1987; Goffman, 1967) exemplified throughout the extract. The students mitigate potentially face threatening acts such as disagreements and use tag questions in order not to sound imposing in their proposals (12, 19, 24, 25) thus minimising the threat of negative face.

In this example of group work, we can see how learners assumed conversational responsibilities in the management of the interaction which eventually brought the task to a successful completion. This contrasts with the asymmetric roles displayed by teachers and learners in the teacher-class conversations analysed above. The group work task afforded students space to display, mobilise, put to test and, in due course, develop their (classroom) IC. Their display of verbal, interactional and multimodal
resources eventually allowed the group to accomplish their content-related goal just a few minutes after the end of the excerpt.

This analysis illustrates the interactional, linguistic and multimodal resources used by learners in autonomous peer-interaction in this particular context.

**Discussion and conclusion**

In this chapter, we have explored the construct Classroom Interactional Competence (CIC) across a range of CLIL classroom settings. By studying in some detail the interactions which take place in CLIL classrooms, we have seen how the interactional, linguistic and multimodal resources jointly used by teachers and learners to get the business of teaching and learning done vary considerably according to specific teaching and learning goals at a particular point in time. Three broad features of CIC in teacher-class interaction were discussed and then analysed in some detail: alignment between pedagogic goals and language use; creating space for learning, and shaping learners’ contributions in feedback. The interactional strategies deployed by the teachers in extracts 1 and 2 helped to maintain the flow of the discourse and contribute to the co-construction of target knowledge, which are both accountable to a specific discipline and central to effective classroom communication. More specifically, the analysis of the episodes of teacher-led interaction revealed that (a) the teacher’s systematic deployment of multimodal resources ensured comprehension and favoured self-selection and (b) the teacher’s questions and evaluative feedback played a major role in guiding the students towards acceptable answers with a higher degree of discursive elaboration.
In this chapter, CIC has proved its usefulness to analyse both teacher-class and groupwork interaction in CLIL settings. Specifically, CIC contributes to identifying and characterizing traits present in GW which may be conducive to the deployment and development of learners’ interactional resources and which are crucial for them to succeed in L2 content-related challenges.

As can be seen from the analysis of the extracts, CIC entails developing fine-grained understandings of the ways in which social actions, interactional, linguistic and other semiotic resources combine to create micro-contexts in which understanding and learning can occur. Such understandings can only be attained when we can relate the actions and interactions of the participants to their intended goals. In extract 3, for example, we made comments on the interactional competence of this group of learners in relation to the extent to which they maintained their discussion and completed the task.

CIC, which offers a different but complementary view of learning through interaction to that provided by a purely CA-for-SLA analytic perspective (see Evnitskaya and Jakonen, this volume), has much to offer for in-service and pre-service teacher education for CLIL (Escobar Urmeneta 2013). Its main strength is that it provides a well-defined structure that helps teachers analyse their own performance within their own classrooms, and identify relevant areas for improvement within their own means. Current calls for data-led, evidence-based reflection propose the need for appropriate tools to enable teachers to collect classroom data as a means of reflecting on and making changes to their practice (Mann & Walsh 2013). The use of video playback, stimulated recall, ad hoc self-observation instruments such as Self-Evaluation of Teacher Talk or SETT (Walsh 2006) and peer observation are all examples of the type
of professional development we are advocating as a means of developing CIC. In light of the need for models of teacher education which are specifically designed for CLIL, CIC might conceivably be used as one element of the curriculum, designed to raise awareness and sensitize teachers to the complex interplay of language, interaction and learning.

A number of issues related to CIC in CLIL settings remain insufficiently explored. For example, how does CIC manifest itself across a range of CLIL contexts, across different subject areas? What, for example, is the relationship between interaction, orientation to knowledge and learning in a science class and how does that relationship change in a maths or history class? What practices might CLIL teachers use to create dialogic, engaged learning environments and how do these practices assist or foster learning? What do specific sociocultural constructs (such as scaffolding or affordance) look like, in terms of data, in different CLIL settings? How might an analysis of those constructs help foster better understandings of the ways in which learning ‘gets done’ in specific contexts? And how might CLIL teachers become researchers of their own practice as a means of both enhancing their practice and contributing to the current body of research?

These are some of the challenges facing both practitioners and researchers in the immediate future. It is evident that closer, more fine-grained understandings of interaction will be needed in order to answer some of these questions and as a way of contributing towards current debates in CLIL.

¹ The ‘Language and Education’ (LED) corpus consists of over thirty hours of CLIL conversational data recorded in primary, secondary and tertiary settings.

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### Appendix 1: Transcript Conventions

| JAU: | Initials followed by a colon correspond to the speaker's pseudonym. |
| () | Unmeasured (micro-)pause of less than two-tenths of a second. |
| (1.5) | Measured pauses in seconds. |
| overlap | Start of concurrent speech. |
| o[overlap] | Concatenated overlapping |
| word | Underlining indicates speaker's emphasis. |
| *word* | Talk which is softer than that surrounding it. |
| ? | Rising intonation, not necessarily a question. |
| cu- | Sharp cut-off. |
| : | Stretching of the preceding sound, more colons more stretching |
| xxx word | Unintelligible fragment with one ‘x’ equal to one syllable. Utterances produced in any other language than English. Description of speaker’s non-verbal actions. Translation into English of original L1 utterances. |
| ((laughs)) | |
| word | |