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CLIL classroom discourse

Research from Europe

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Under the label of Content and Language Integrated Learning (CLIL) the teaching of curriculum subjects through the medium of a foreign language has become a widely accepted feature in mainstream education systems in Europe and other parts of the world. After contextualizing its subject matter in CLIL research as a whole, this article focuses on research into classroom discourse. In order to unravel the complexities involved, three different takes on CLIL classroom discourse are discussed as an evidence-base for (a) language learning, (b) language use and social-interactional aspects of L2-interaction, and (c) processes of knowledge construction in and through a second or foreign language. The article concludes with an outline of requirements for further research in the area.

Additional abstract(s) at end.

Keywords: Content and language integrated learning, CLIL, classroom discourse, language learning, second language interaction, knowledge construction processes

1. Introduction

Content and language integrated learning (CLIL) refers to an educational approach in which a foreign language is used as the medium of instruction to teach content subjects for mainstream students. Over the last two decades, the spread of CLIL has been extensive in Europe in particular, and in recent years there has been growing popularity also in Asian and Latin American contexts (e.g., Banegas, 2011; Yassin, Marsh, Tek, & Ying, 2009). In Europe, CLIL has been fueled both by top-down and bottom-up processes. Firstly, CLIL has received ample political support in the European Union, as it is seen as a means to achieve the 1+2 policy aim put forward in the 1995 White Paper on Education and Training by the

European Commission (*Teaching and Learning — Towards the Learning Society*), i.e. that all EU citizens should master two community languages in addition to their mother tongue. At the same time, societal changes have resulted in increasing internationalization and mobility, which have highlighted the important role of languages in modern societies, with versatile language repertoires forming a social and economical asset for both individuals and societies. This has led many parents, for example, to seek educational opportunities for their children that would support their multilingual capacities, and many individual teachers and schools have responded to such calls by offering instruction in foreign languages. What also has paved way for the spread of CLIL is the set of experiences gained through the Canadian model of immersion and its European applications (e.g., Johnson & Swain, 1997; Tedick, Christian, & Fortune, 2011), which have shown that instructing through languages other than learners' mother tongue can lead to successful results in the areas of both language and content mastery. Emergence of CLIL within the European educational scene also has its tensions, one of which is that while political agendas applaud its potential to enhance multilingualism in Europe, the language of instruction continues to be English in the majority of cases, although there are examples of other community or neighboring languages in multilingual European regions being used in CLIL and of languages other than English being used in the UK (e.g., Lorenzo, Casal, & Moore, 2010; Mearns, 2012; Serra, 2007).

CLIL shares many features with other forms of bilingual education such as immersion and content-based instruction (CBI), developed in North-American contexts (e.g. Brinton, Snow & Wesche, 2003/1989; Genesee, 1987; Tedick & Cammarata, 2012), especially as regards theoretical and pedagogical considerations that concern learning in a second language. CLIL has often been distinguished from immersion in that the language of instruction is a foreign language and, therefore, rarely present (or not present at all) in the social context outside the classroom (i.e., Lasagabaster & Sierra, 2009). While the presence of the instructional language outside the classroom is certainly the case in some immersion contexts, such as Catalonia or Quebec, many other current immersion and CBI settings are similar to CLIL in that the language of instruction is a foreign language, with classrooms forming a major, often the only, context in which learners have opportunities to use the target language (Tedick & Cammarata, 2012). In fact, one important motivation for CLIL implementation in many corners of Europe has been to offer learners more possibilities for meaningful language use in the foreign language in question. The fact that 'the foreign language in question' is the highly prestigious global lingua franca English in an estimated 95% of all cases should not be overlooked. Like their students, CLIL teachers are normally second language speakers of the instructional language and tend to be subject specialists

rather than having qualifications as language teachers. Foreign language lessons are offered separately from CLIL lessons that are timetabled as content lessons. CLIL provision usually covers less than 50 % of the curriculum, with children typically having acquired their basic literacy skills in the L1 prior to their CLIL experience. Despite the typical features described above, the fact remains that CLIL implementations are heterogeneous, with different contextual factors influencing both their aims and outcomes.

That CLIL is a many-faceted phenomenon is also reflected in research. Research may address various stakeholders (e.g. students, teachers, parents, policy makers), different areas relevant for learning in CLIL (e.g. language expertise, content expertise, knowledge construction in different subjects) and adopt both holistic macro and particularized micro perspectives towards the phenomena studied. As a step towards an illustration of the CLIL research scene, Dalton-Puffer and Smit (2007b, pp. 12–15) and Dalton-Puffer, Nikula, and Smit (2010b, pp. 8–11) visualized the CLIL research space with a diagram where the three dimensions micro-macro, process-product and content-language intersect in a coordinate system. The resulting quadrants serve as rough indicators of the type of research conducted on CLIL. Examples of process-oriented macro studies are reports on CLIL implementation processes either in specific institutions or regions (e.g. Lorenzo, Casal & Moore, 2010; Novotná & Hofmannová, 2011). Product-oriented macro-studies involve studies and reports of the implementation of CLIL programs or formulations of general (institutional or pedagogical) guidelines for CLIL (e.g. DESI-Konsortium, 2008; Coyle, Hood, & Marsh, 2010). Product-oriented micro studies are typically outcome studies relating both to language and content learning in CLIL (e.g. Badertscher & Bieri, 2009; Ruiz de Zarobe & Jiménez Catalán, 2009; Zydatis, 2007, 2012). Finally, the quadrant of process-oriented micro studies includes studies focusing on aspects of classroom discourse and CLIL classrooms as interactional contexts (e.g., Dalton-Puffer and Smit 2007a; Llinares, Morton & Whittaker, 2012). As regards the language-content dimension, its importance was highlighted in the revision of the diagram depicting CLIL research space (Dalton-Puffer, Nikula and Smit 2010b, p. 10), as studies in different quadrants may position differently in terms of this dimension in that some studies are clearly language-oriented, and others are geared more towards matters of content learning. However, there have also been calls for research that would emphasize the importance of a balanced take on the two in order to account for the very notion of content and language integration (e.g. Gajo, 2007; Vollmer, 2008).

Research on CLIL has been on the rise in recent years, evidenced both by several books on CLIL (e.g. Coyle, Hood & Marsh, 2010; Dalton-Puffer, 2007; Dalton-Puffer, Nikula, & Smit, 2010a; Llinares, Morton, & Whittaker 2012; Ruiz de Zarobe & Jiménez Catalan, 2009) as well as a breadth of journal articles and

research projects. Spain in particular has invested a great deal in CLIL research and development (Lasagabaster & Ruiz de Zarobe, 2010).

Overall, the heterogeneity of both CLIL implementation and research approaches makes it a challenge to draw generalized conclusions about CLIL (see Dalton-Puffer, Nikula, & Smit 2010b for an overview). It is clear that consolidating research efforts is needed. Bonnet (2012), for example, calls for research that would help incorporate both qualitative and quantitative approaches as well as process, product and participant perspectives in ways that would take into account both individual, social and cultural concerns relevant in CLIL. Such studies have indeed recently started to appear. Llinares and Morton (2012), for example, combine quantitative Systemic Functional Linguistics (SFL) and qualitative Conversation Analytic (CA)/situated learning approaches to account for interaction and language learning in CLIL classrooms.

As the discussion above shows, classroom discourse studies form an important area of CLIL research. However, while overviews of CLIL research exist (e.g. Dalton-Puffer, 2008; Dalton-Puffer, 2011; Dalton-Puffer, Nikula, & Smit, 2010a), they tend not to include exploration of specific research orientations. This paper, therefore, takes a closer look at research on CLIL classroom discourse in particular. We see this as a worthy endeavor for two reasons. Firstly, although outcome studies and studies on forms of CLIL implementation clearly outnumbered classroom discourse studies in the early phases of CLIL research, this situation has changed quite dramatically over the last five years or so. As a result, there now exists a wealth of classroom-based studies on CLIL, thus, a synthesis of their contributions is timely. Secondly, even if the label “research on CLIL classroom discourse” is functional in illustrating the shared broad area of interest, it may also be misleading in its tendency to homogenize research that is, in fact, multi-faceted and diverse depending on the various theoretical and methodological orientations and premises that can be adopted towards classroom discourse. For this reason, this paper is also an attempt to unravel the complexities involved by discussing different takes on CLIL classroom research. It has to be noted, however, that the heterogeneity of CLIL classroom research includes one unifying factor, also reflected in the discussion that follows: most of the studies report on teacher-led classrooms and on whole-class interaction. Teacher-led lessons and whole-class interaction are easier to record than small groups of students working independently, and, quite simply, they also appear more frequently in classrooms despite professions to the desirability of student-centred, task-based pedagogical designs.

In the following pages, we will discuss research on CLIL classroom discourse from three main perspectives, based on whether the studies are primarily oriented (a) to classroom discourse as an evidence-base for language learning, (b) to language use and social-interactional aspects of CLIL classroom interaction, or (c) to

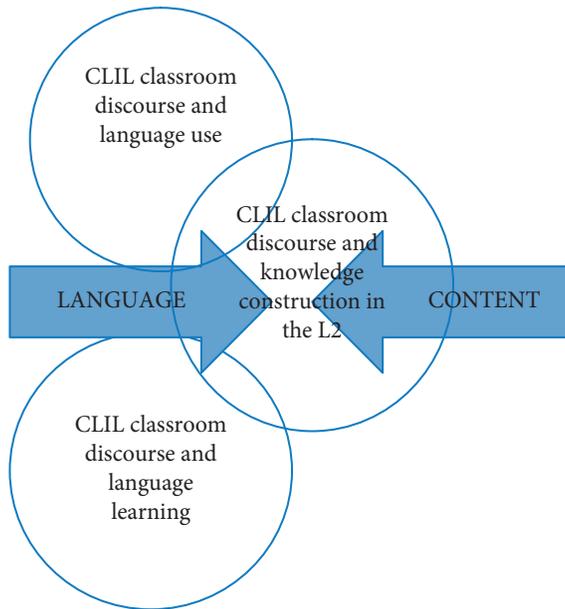


Figure 1. Focus Areas in CLIL Classroom Discourse Research

processes of knowledge construction in and through CLIL classroom discourse. These areas of focus in CLIL classroom discourse research match Llinares, Morton and Whittaker's (2012) three-part framework for understanding the roles of language in CLIL: language development, interaction and subject literacies. Similar to their framework, the three perspectives we adopt for the classification of CLIL classroom discourse research are closely intertwined (see Figure 1), with some research studies placing more emphasis on language in CLIL and other (fewer) studies focusing on language and content in integration.

The three-way division described above also reflects the emergence of CLIL classroom research. In the early years in particular, the advancement of CLIL often raised concerns about its suitability and functionality as a method to teach and learn foreign languages. Therefore, questions of foreign language learning have featured prominently in CLIL research from the very beginning. This focus on language learning is also reflected in research on classroom discourse in that there are numerous studies that approach classroom discourse from the theoretical framework provided by different strands of foreign and second language learning research. However, it has also been of interest for researchers to come to a better understanding of CLIL classrooms as contexts for foreign language use, which has resulted in studies for which questions of learning come into play by implication via the observed quality of classroom interaction. Such studies have typically leaned towards discourse analytic or pragmatic frameworks. Accumulating

CLIL research has also increased awareness of the importance of accounting for the simultaneous learning and teaching of language and content to do full justice to the duality in CLIL. In classroom-based research, this has meant developing theoretical and methodological tools to account for the inherent connectedness of language and content — in essence, of form and meaning. The research orientation that has shown to be particularly fruitful in this respect is Systemic Functional Linguistics (SFL), and recent years have indeed shown an increase in studies adopting SFL approaches to explore CLIL classroom discourse. As will become evident in the ensuing discussion, the overlapping nature of different areas needs to be acknowledged, however, and the widening knowledge base deriving from the three approaches will no doubt foster research efforts that seek to combine them.

2. Research primarily oriented to L2 learning & pedagogical aspects

In contrast to the outcome studies (examples cited above), which construct language learning in terms of a product, studies on CLIL classroom discourse take a process-oriented view of language learning, a process that is prototypically enshrined in the lesson as *the* core event in institutional learning. In other words, language learning is thought to take place via learners' participation in the sequentially structured discourse activities which are determined by local pedagogical designs and afford specific interaction opportunities among the participants (cf. for example, Hua, Seedhouse, Wei, & Cook, 2007). Beyond this common point of departure, however, research studies on CLIL classroom discourse, as will be seen below, have embraced a range of positions developed in second language acquisition (SLA) research since the 1990s (e.g. Doughty & Williams, 1998; Gass, 1997; Lantolf, 2000; Long, 1996; Pica, 1994; Swain, 1995). Furthermore, interaction-based general learning theories (Mercer, 1995, Wells, 1999) enter the equation in many studies; many are in fact grounded in some form of sociocultural and/or social-constructivist learning theory (e.g. Bruner, 1990; Vygotsky, 1978; Wertsch, 1991). Interestingly many CLIL-stakeholders seem inspired by input-based theories (e.g. Krashen, 1985), as evidenced in teacher interviews (e.g. in Dalton-Puffer, 2007; Hüttner, Dalton-Puffer, & Smit, in press) and also on programmatic websites like the *CLIL Compendium*.¹ This suggests that, even though SLA-expert views have long moved on from such positions, the belief in the power of input seems to furnish a convenient rationale for the reliance on incidental language learning in many CLIL implementations.

The discussion in this section will be organized along topics that arise from the research questions or hypotheses guiding the respective studies, questions which have been relevant in classroom-based SLA research for some time: negotiation of

meaning, output, corrective feedback, scaffolding, task-based learning and various forms of explicit language work, such as attention to vocabulary or focus on form. A common denominator to most is their focus on teachers' actions, and so the transition towards approaches that are more pedagogical and educational in nature is gradual. At several points in the discussion the overlaps with the other two perspectives presented in this article (see Figure 1) will become evident. For example, when participants in the classroom 'negotiate meaning' they are evidently co-constructing content as much as negotiating about language.

Taking inspiration from negotiation of meaning studies in naturalistic L2 classroom contexts (Foster, 1998; Foster & Snyder Ohta, 2005; Musumeci, 1996), studies on the negotiation of meaning (NoM) in CLIL seek to check two basic hypotheses: whether (a) CLIL lessons with their focus on meaning offer learners more negotiation opportunities than foreign language (FL) lessons and thus provide a richer language learning environment through emulating the 'real' meaning negotiation outside the language classroom (Lochtmann, 2007) and (b) whether CLIL lessons lead learners towards a more careful construction of subject specific concepts than L1 subject matter teaching, enabling them to successfully construct content in an imperfectly known language (Badertscher & Bieri, 2009). Depending on whether the researchers' interest is on language or on content learning, the point of comparison is thus either the FL classroom or subject matter teaching in the L1.

In the most profound NoM study to date Badertscher and Bieri (2009) compared 10 CLIL and 10 L1 subject matter lessons in Switzerland, finding that the average NoMs per lesson was indeed twice as high in CLIL lessons (14.9 per CLIL lessons vs. 7.7 per L1 lessons, comprising 17% and 9.8%, respectively, of total lesson time). NoMs in CLIL are not necessarily longer than in the L1, but they consist of more clearly discernible phases and are carried out more consistently by teachers once they have realized a problem has occurred. Lochtmann (2007) found a similar numerical preponderance of NoM in CLIL when she compared NoM in CLIL to NoM in FL classes. The negotiation sequences in the FL classes focused on form, while the CLIL classes dealt with the same problems via recasts (see below on correction). The question of who initiates more NoM sequences has brought forth inconclusive evidence: Mariotti (2006) reports a clear dominance of student clarification requests in her CLIL data, while Badertscher and Bieri counted only about 15% of student-initiated NoMs in both CLIL and L1 lessons. However, no matter who initiated the negotiation sequences in the CLIL classes, the majority were triggered by lexical difficulties. While a much broader evidence base is clearly needed, some tentative conclusions can be drawn: (a) the space available for NoM clearly depends on the type of classroom activity going on (Mariotti, 2006, for instance, found that team-taught CLIL strongly discouraged active student

involvement in NoMs), and (b) contrary to the hopes for pedagogical reform that accompanied the inception of CLIL, it has been documented that CLIL does not, of course, overcome entrenched institutional roles of teachers and learners, but it does seem to somewhat readjust them towards a greater openness and attention to dealing with lack of understanding on both conceptual and linguistic levels.

Closely related to the studies just discussed and a core topic in SLA is (language) errors and corrective feedback. A central question with regard to CLIL classrooms is, therefore, if and how their meaning focus is manifested in participants' error and correction behaviour. A comparison of Austrian CLIL and EFL classrooms (Hampl, 2011) showed that students make significantly more language errors in CLIL, presumably not only because they generally talk more but also because they monitor less. Students' errors are predominantly lexical in nature that is, lexical choice and pronunciation of technical terms together comprise approximately 50% of all errors (Dalton-Puffer, 2007; Hampl, 2011). These are also the errors which tend to be treated most often, while grammatical errors are almost entirely ignored. Generally the rate of error treatment is much lower in CLIL than in EFL (ca 90% in EFL; between 40 and 60 % in CLIL; Hampl, 2011; Lochtmann, 2007; see also Schuitemaker-King, 2012). Lyster and Ranta's finding (1997) that language errors in immersion classrooms are predominantly treated implicitly (typically by recasts) has also been reported for European CLIL classrooms (Dalton-Puffer, 2007; Hampl, 2011); Schuitemaker-King (2012) found extremely few examples of metalinguistic feedback in CLIL lessons while this strategy was the most frequent one used during the EFL lessons observed. Lochtmann (2007) has argued that form-focussed corrective feedback, which pushes learners to produce revised versions of their output, would be a desirable addition to CLIL classrooms. While school-level classrooms show that students initiate repair only in exceptional cases, Smit (2007, 2010a) has described tertiary classrooms in Europe with professionally oriented, multicultural participants where student-initiated other-repair is a normal part of classroom interaction in the interest of mutual understanding in a situation where English serves as a lingua franca. It thus seems that the face-threat connected with the correction of language errors is also a contextual feature (see Section 3).

The amount and quality of student output in CLIL has been pursued by studies on teacher questions as keys to students' language production. Especially in whole-class interaction the type of question asked by the teacher will have a direct impact on quality and quantity of language output produced by the students. Studies in SLA but also in general education (e.g. Long & Sato, 1983; Mehan, 1979) have worked with a number of question-type dichotomies (open/closed and display/referential), finding a dearth of those question types which presumably lead to longer and more complex answers, namely open and referential questions (e.g.

Musumeci, 1996). Dalton-Puffer's (2006, 2007) and Pascual Peña's (2010) studies of CLIL classrooms paint a somewhat less dire picture, finding a clear preponderance of open questions as well as a minimum share of 17% referential questions in the instructional register (Pascual Peña 2010). While this still amounts to a strong preference for display questions overall, the referential category is strengthened by teachers' questions in the regulative register,² bringing up the total to over 50% as long as the regulative register is conducted in the target language rather than the L1 (Dalton-Puffer 2007). Nevertheless, a qualitative analysis of student responses brought to light that students' preference for short, single noun-phrase answers seems independent of the type of question asked (Dalton-Puffer 2007). This suggests that another conceptual dimension most likely informs the complexity of student responses. This dimension was operationalized by Dalton-Puffer as "type of information sought," i.e., whether the teacher's question targets facts, explanations, reasons, opinions, or meta-cognitive information (2006, p.193). Both Dalton-Puffer's and Pascual Peña's analyses show that questions for facts form a clear majority (63–88 %) of the total number of teacher questions in their data, explaining the well-known preponderance of minimal student answers. The same tendencies were found by Menegale (2011) in a study using a framework that foregrounds cognitive demand. In her study on Italian CLIL classrooms, lower order convergent questions were the single most frequent category, with divergent questions running up to a maximum of 10% in the instructional register; it seems plausible to us that this captures roughly the same category as the 12% non-fact questions in Dalton-Puffer's Austrian data. The same overall tendency favouring convergent recall questions is reported by Schuitemaker-King (2012) for the lessons of 38 Dutch CLIL teachers. She adds, however, that Art and Sports lessons show a higher share of divergent questions. Dalton-Puffer's analysis of student responses showed that the 'higher-order' question types did indeed lead to more complex student responses if they were taken up by the students, which was by no means guaranteed. Pascual Peña's (2010) comparison of two CLIL teachers with different disciplinary qualifications showed that the EFL+subject teacher's expected awareness of the importance of complex student output for learning did not prompt her particularly to use many question types that would encourage this output; in fact, it was the subject-only teacher who was more inclined to use a greater share of questions encouraging divergent higher order thinking that needed to be verbalized in more complex ways (concurrent evidence was also produced by Romero & Llinares, 2001). All the studies reported are multiple case studies, so generalisations should be made only with utmost caution, but it seems plausible that all else being equal, deep content knowledge on the part of the teachers makes it more likely for them to feel free enough to invite students to enter into divergent thinking (and speaking) modes (as argued by Kong, 2009).

A continuous theme running through all the topics discussed in this section is the significance of how participants construct the ongoing classroom activities, in other words, their understanding of the task at hand. That is to say that in a maximal understanding of 'task' (cf., Skehan, 2003), the CLIL lesson as such can be understood as one. Indeed studies of CLIL stakeholder beliefs show that participants do not orient towards the L2 in CLIL in the same way as in foreign language classrooms (cf., Hüttner, Dalton-Puffer, & Smit, in press), seeing the former as a context where they do not 'do language' but 'do' science, technology or history in English. It thus becomes of utmost importance to find out what the 'local organization' looks like and how the task of 'doing subject x in English' is structured and how this compares to 'doing English.' In other words, it is highly relevant to examine the pedagogical designs of entire CLIL lessons in order to understand what kinds of task-based learning are at all likely. So far, only Badertscher and Bieri (2009) have presented a systematic analysis of this kind, comparing CLIL and L1 content lessons in Switzerland with regard to the pedagogical designs and activity types that occur (i.e. teacher presentation, teacher-led whole-class discussion, group-work, pair-work, role-play, student presentations etc.) and how they are distributed. Their findings clearly demonstrate that teacher-led whole class discussion is dominant in both conditions; in fact, it is even more dominant in the CLIL lessons. These quantitative results underscore Dalton-Puffer's general description of her Austrian CLIL data (2007); she also observed that these CLIL lessons were very much characterized by "Triadic Dialogue," whole-class interaction proceeding by loops of IRF-sequences. Even if one accounts for the undeniable differences of the pedagogical traditions in different countries and different subjects, these findings fuel doubts with regard to declarations that there is a specific CLIL teaching methodology in use or even that CLIL per se leads to more student-centred pedagogical designs and classroom practices (Mehisto, Marsh, & Frigols, 2008). Clearly, contextual features like educational cultures but also class size are powerful factors in the equation.

Closer in focus to the studies on task-based learning in SLA (e.g., Ellis, 2003; Skehan, 2003) are those studies that examine small-group or pair-work interaction in CLIL lessons. The studies by Bonnet (2004), Gassner and Maillat (2006), and Maillat (2010) focused on the potential of small-group interaction to intensify students' involvement with regard to subject content in chemistry or biology. Working from a strongly socio-interactionist perspective, Pekarek-Doehler and Ziegler (2007) traced the complex interrelatedness of participants' orientations to language and academic content in Swiss biology lessons conducted in English, showing that attention to language form was embedded in work on scientific concepts. From a more discourse-pragmatic perspective, Nikula (2012) describes Finnish CLIL history students' group-work as actively engaged in discourse patterns typical of

history (seeking causal connections, establishing narratives), showing some sensitivity to the difference between everyday and academic language use. Other recent studies (e.g., Horrillo Godino, 2011; Tapias Nadales, 2011) provide further evidence that small-group interaction indeed has the potential to increase both quantity and functional scope of students' language output. As Llinares and Morton (2010) argue, "CLIL students may be able to do more than we think, if we provide them with the interactional space to articulate their understandings" (p. 62).

We have seen that the teacher-centred mode of most CLIL classrooms accords teachers a central role not only as facilitators of learning but also as givers of input and default interaction partners. Relatively recently, the SLA arena has seen the return of explicit teaching as a key ingredient in institutional learning processes in the guise of focus on form. In other words, it is necessary to consider the option of 'allowing' into CLIL classrooms explicit attention to language and pedagogical activities that are explicitly framed as 'language work.' Lyster (2007) has argued for such a "counterbalanced approach" (which calls for an integration of content-based and form-focussed instruction) in connection with immersion and other models of content-based language education, and in the case of CLIL such a two-pronged pedagogy would not only scaffold students' L2 development, but it would ostensibly fit the phrasing of 'content-and-language-integration' exceedingly well. A group of Dutch researchers, therefore, set themselves the task to develop a heuristic for identifying teacher behaviour in CLIL contexts that exemplifies sound language pedagogy. Departing from a mixed rationale which draws on a range of current SLA theories (de Graaff, Koopman, & Westhoff, 2007; de Graaff, Koopman, Anikina, & Westhoff, 2007), the authors defined five categories of 'performance indicators' relating to provision of input, encouraging production of output, form-focussed processing, meaning-focussed processing, and use of strategies. The performance indicators were empirically verified and anchor examples were identified in a set of CLIL classrooms. However, as the authors point out, quantification was not part of the project. Some quantitative information along these lines has been made available recently by Schuitemaker-King (2012). Her quantitative-qualitative observational study is not directly based on the above observation scheme but is akin in its focus on effective language pedagogy as embodied in teacher actions. It is of particular interest that her study includes a comparison of CLIL with mainstream EFL classes as well as EFL support classes. Results showed that nearly 40% of the 38 CLIL teachers observed in the study never modified or elaborated their own utterances in order to make input more comprehensible to students, and those who did, used such strategies very rarely (1–9 occurrences per lesson). It was not that EFL teachers used more modifications, but the language in their lessons was so carefully preselected that further tuning of input was largely unnecessary. The scaffolding strategy used most frequently by the CLIL teachers was

to anticipate lexical problems and code-switch in mid-utterance to include an L1 translation of a word or phrase (Schuitemaker-King, 2012; for analogous results in this respect see also Matyasek, 2005). Code-switching is only one of 22 vocabulary presentation strategies investigated in Kovacs's (2009) study of the lexical dimension of two teachers' CLIL geography classes. One main finding of the latter study is that the teacher with EFL *and* geography training used a much wider repertoire of vocabulary presentation strategies than the geography-only teacher, with 'paraphrase in the target language' being one of them. That the didactic repertoire of trained language teachers for scaffolding language learning is indeed broader than that of subject-only teachers is also related by Schuitemaker-King (2012), a finding which would speak for CLIL teachers to have a double teaching qualification in the subject and the language. Such qualifications, however, are not normally required in most education systems.

In sum, SLA-inspired research on CLIL classrooms cannot but demonstrate that the discourse is educational in nature and in so far 'similar' to mainstream FL classrooms. At the same time, many findings underscore the considerable contextual variation caused by the co-presence of content pedagogy. Participants clearly interpret their roles differently and thus orient differently to their respective tasks, a situation which opens up language learning opportunities that may be difficult to orchestrate in the conventional language classroom.

3. Discourse analytic and pragmatic approaches

Given that CLIL classrooms are, by definition, educational contexts in which foreign language learning takes place, the questions of language learning outlined above are not absent from discourse-pragmatic research orientations either. However, discourse analytic and pragmatic studies are often, first and foremost, interested in understanding what features characterize CLIL classrooms as environments for language use and social conduct. Consequently, it has been a special concern for many studies to explore whether there are conditions in CLIL classroom discourse that enhance participants' mutual engagement in talk, a condition that at least in the framework of socially-oriented views towards learning, be it from sociocultural or CA-oriented perspectives (e.g. Firth & Wagner, 2007; Lantolf, 2000), is considered conducive to foreign language development.

Given their socially-oriented view to discourse, studies which have their main focus on language use in CLIL classrooms are also often concerned with issues relating to social and interpersonal meanings such as politeness or appropriateness. As a consequence, the construct of language competence advocated in these studies often departs from that of studies drawing on formal-structural perceptions of

language in that emphasis is placed on learners' ability to take social-interpersonal dimensions of talk into consideration when using a foreign language rather than on how they master the formal aspects of language.

One area of language use that has been addressed by pragmatic studies on CLIL classroom discourse is the use of specific speech acts by teachers and students, most notably such commonplace speech acts for classroom discourse as questions, requests, and directives (e.g., Dalton-Puffer, 2005, 2007; Dalton-Puffer & Nikula, 2006). An overarching conclusion, especially for teacher-fronted situations, is that teachers tend to play the traditional role as the ones primarily in charge of these speech acts. This, obviously, reflects the institutional nature of classrooms in that the teachers have the institutionally defined power and responsibility to be in charge of what happens in classrooms, and this social condition is also reflected in — and constructed by — patterns of language use. However, although there is conformity across contexts in that teachers are the ones in charge of performing speech acts geared towards influencing students' behavior, research suggests that there is a great deal of variation in how teachers go about this, most probably influenced by such contextual factors as their overall proficiency in the instructional language as well as their length of experience in CLIL. That cultural factors may also be at play is suggested by studies that have explored how teachers manipulate the directness levels of their speech acts by using modifying expressions (e.g., modal verbs, softening adverbs) and other verbal means (e.g., issuing directives in the form of questions rather than as bare imperatives). For example, Dalton-Puffer's (2005, 2007) investigations on Austrian CLIL classrooms showed teachers using quite varied strategies to add elements of indirectness to their speech acts in ways that could be seen as interpersonally motivated in that their function was to 'soften' the potential offensiveness of speech acts, such as orders issued directly. In contrast, Nikula's (2002) case study on Finnish CLIL and EFL teachers showed that the teachers usually expressed potentially face-threatening speech acts such as orders without modification strategies, hence opting for directness as the most typical pragmatic strategy. Cross-linguistic influences may also be at play in that English and German as related languages have rather similar linguistic means to convey pragmatic meanings, which makes it easier for non-native speakers to deploy them, whereas pragmatic meanings in Finnish are frequently expressed by clitics, i.e., particles affixed to their stems rather than words in their own right, and other means of morphology which easily remain below conscious awareness and hence may also less straightforwardly be transferred to L2.

When analyzing the use of speech acts by teachers and students, it is also crucial to take into account the influence of more fine-grained contextual factors within the classroom situation when discussing the appropriateness of participants' choices. Dalton-Puffer and Nikula (2006), for example, show how the object

of directives (whether for goods or information) and classroom register (instructional/regulative) affect speakers' directness choices. They found that, typically, both teachers and students seem to have a right to be quite direct when performing requests for information during instructional register use in both EFL and CLIL classrooms, probably because dealing with information is such a crucial aspect of classroom settings that there is little need for participants to employ pragmatic strategies to diminish the face-threatening potential of requests for information. In contrast, requests for action are more commonly modified, but students' use of these types of directives seems to be restricted to the regulative register, and even then requests for action are mainly used to address peers rather than the teacher. The institutionally defined power asymmetry between the teacher and the students (e.g., Thornborrow, 2002) and the ensuing differences in their interactional rights and obligations thus continue to be important elements of CLIL classroom talk, putting into perspective the most enthusiastic expectations for the potential of CLIL to offer "authentic" and varied opportunities for students to use the foreign language. In other words, it would be beneficial for teachers to be conscious of the constraining tendencies that classrooms as institutional settings may have on learner discourse, so that they can plan activities that would both offer students possibilities to experiment with various forms of talk within the confines of classrooms and provide them with realistic expectations regarding the possibility of CLIL settings to provide an arena for engaging in FL use.

Even if teacher control is a characteristic feature of CLIL classrooms, with the array of speech acts deployed by students largely restricted to responses to teachers' initiatives, studies on language use in CLIL classrooms have also indicated that when compared to EFL settings, CLIL students seem to have more varied opportunities for language use in their responses. This has been indicated by studies focusing on the deployment of IRF (initiation-response-follow-up) sequences (Mehan, 1979; Wells, 1993) in particular. Nikula (2007) investigated the IRF sequences of Finnish CLIL and EFL lessons, a study which has been replicated by Schindelegger (2010) with Austrian data. The two studies actually diverge with regard to the frequency of IRF sequences: in Finland they were found to be more frequent in EFL lessons but in Austria they were more frequent in CLIL, which points towards potential differences in the respective didactic traditions of the subjects (EFL, biology, history) in the two countries as well as the impact of contextual factors like group size (CLIL groups in the Finnish study being much smaller than in the Austrian study). However, in all qualitative respects, the two studies paint a parallel picture: IRF exchanges in CLIL are generally less tightly packed in that students' responses tend to be longer than in EFL settings, as well as inviting from teachers reasons and further explanations rather than them just acknowledging the correctness of students' responses. As the follow-up move serves a wider range of functions in

the CLIL lessons, it also occasionally allows students to occupy it, frequently resulting in a chain of follow-up comments developing a theme, while in EFL lessons the follow-up moves are typically by teachers only, often leading to a quick move into the next IRF cycle. As a consequence, when students and teachers engage in sustained dialogue in CLIL, there is a sense of more interactional symmetry — if not symmetry in terms of actual positions of power — among the participants than in EFL classrooms. Another qualitative difference observed between CLIL and EFL classrooms relates to the pragmatic dimension of interpersonal involvement and detachment. Work by Nikula (2005, 2008) on EFL and CLIL classrooms in Finland, for example, has indicated that in EFL classrooms, talk is more often interpersonally detached, largely because interaction tends to be textbook bound, usually dealing with events and characters in the books rather than the participants' lived experiences. In contrast, CLIL settings more often involve hands-on, practical activities, which tend to produce personally more involved talk as students centre on the here-and-now of the task at hand as well as more shared meaning negotiations and collaborative forms of talk. That this finding conflicts with the observations made in Section 2 above about FL and CLIL classrooms sharing very similar classroom pedagogies both in Switzerland and Austria (Bardetscher & Bieri 2009; Dalton-Puffer, 2007) may either point towards the effects of different pedagogical cultures across contexts or those of group size, both areas that merit further research in the future. However, CLIL students' greater tendency towards collaborative forms of talk in comparison to EFL students (for example in the form of jointly constructed turns) has also been observed by Moore (2011), who used discussions with EFL and CLIL students as data.

The differences between CLIL and EFL settings might partly be explained by students' greater courage to engage in L2 interaction in situations where their language skills are not under constant evaluation in the same way as in language lessons. Gassner and Maillat (2006) and Maillat (2010), furthermore, bring up an interesting observation of the potential of CLIL classrooms to create a pragmatic 'mask effect', which lowers the 'affective filter' posited to be associated with foreign language use, and facilitates the spoken production of students. Their data come from Swiss upper secondary level classrooms taught both in English and students' L1, and they observed, among other things, role play situations in both languages and noticed CLIL students getting more deeply involved in them, which noticeably increased their L2 production. The requisite for this effect, Maillat (2010) argues, is "that in CLIL, L2 competence is always a non-focal learning target" (p. 52). However, Pihko's (2010) observations, based on a questionnaire study for 209 Finnish upper secondary CLIL students, suggest that CLIL may also cause feelings of anxiety if students feel that their foreign language skills are under evaluation. In her study, almost one third of the respondents reported feelings of anxiety, despite their very positive overall

attitude to CLIL. Given the contrasting findings relating to affective factors in CLIL, it seems clear that more research is needed in this area, preferably with set-ups that allow for considering the effects of contextual variables and for combining classroom discourse analysis and questionnaire studies on the same groups of students.

An area of inquiry worth exploring in CLIL classrooms is the extent to which these settings are conducive to learning pragmatics. Nikula (2008) explored this issue in a study that departed from speech act-based orientations and argued that instead of the mastery of specific speech acts and their appropriate formulations, pragmatic success should best be seen as a matter of local interactional accomplishment (cf., Bardovi-Harlig, 2005). Using data from Finnish CLIL physics lessons in a lower secondary school, Nikula explored students' pragmatic abilities by paying attention to instances of classroom interaction with potential threat to face concerns, such as disagreements, misunderstandings, and exchanges involving students initiating exchanges with the teacher. There was evidence of CLIL students orienting to social-interpersonal aspects of talk, expressed for example through hesitations, prefacing disagreements with *yeah but*-formulations and paving ground for questions directed to the teacher by preparatory questions or by providing reasons for questions (e.g. *Can I ask something? Can I ask about the hair 'cos my hair used to be really really blond and now it's dark*), especially when questions concerned matters not immediately related to the topic under discussion. Also Gassner and Maillat's (2006) study about the opportunities that CLIL provides for students to practice turn-taking, problem solving and other discourse-level features in a foreign language suggests benefits as regards the development of pragmatic skills. However, the means used for pragmatic meaning-making by CLIL students may not be the ones preferred by native speakers (i.e., discourse markers and pragmatic particles often deployed by native speakers to mitigate the pragmatic impact of their messages were rarely used by the students in Nikula's study), yet they are interactionally successful in their local situations of use. Such observations raise the question as to what extent it is reasonable to measure CLIL students' interactional performance, usually taking place among non-native speakers, against native speaker norms. This issue has often been raised in lingua franca research (for an overview, see Seidlhofer 2004) but less often in CLIL research. Studies by Smit (2010a) and Hynninen (2012) are among the few that have combined content and language integrated learning and lingua franca perspectives.

As shown above, most classroom-based discourse analytic and pragmatic CLIL research has been conducted in secondary school settings. However, there are also studies focusing on English as the instructional language in tertiary education (e.g. Dafouz Milne & Núñez Perucha, 2010; Smit, 2010a, 2010b). Putting aside the question as to what extent English-medium instruction in universities and CLIL can be regarded as the same phenomenon (for discussion, see Smit &

Dafouz Milne, 2012), studies centering on instructional and discourse practices in university contexts form a welcome addition to research on the use of foreign languages as medium of instruction. The study by Dafouz and Núñez Perucha (2010) explores university teachers' lecturing in their L1 Spanish and L2 English. Their findings suggest that when using English, the lecturers make use of less explicit and less varied metadiscursive devices to structure, organize, and chunk their lecturing performance, which has potential implications for students' understanding. For example, while in Spanish they used metadiscursive devices to anticipate and to summarize information (e.g. *another important thing, to conclude*), in English the same speakers tended to shift from one phase of discourse to another without explicit signaling (Dafouz Milne & Núñez Perucha, 2010, pp. 229–230). The authors, therefore, argue that there is a need for language-oriented teacher education in CLIL university contexts. Another tertiary-level study is that by Smit (2010a, 2010b), who in her ethnographic study that included extensive analyses of classroom interactional data, explored the use of English as a lingua franca in higher education. Her findings are powerful in showing how the international group of students gradually formed a community of practice “with its own interactional expectations and communicational conventions” (Smit, 2010a, p. 225). Furthermore, the longitudinal research set-up made it possible to see the importance of both (growing) language and content expertise for classroom participation.

Overall, discourse analytic and pragmatic studies suggest that teaching content matter through a foreign language has the potential for rendering classroom discourse qualitatively different from contexts where language is the object of scrutiny. The biggest differences relate to students' increased opportunities to be active participants in interaction and to use the target language for contextually relevant meaning making. However, these differences also relate to pedagogical practices: gains are less obvious if teacher-centered methods prevail.

4. Research primarily oriented to knowledge construction in L2

In spite of the fact that most CLIL teachers are content specialists, CLIL research has mainly attracted the interest of applied linguists and has, therefore, mostly focused on the language aspect, somewhat neglecting the content side. As shown in the preceding sections, understanding language learning and use in the classroom is and should continue to be a major objective in CLIL research. However, as many CLIL stakeholders have often claimed, more research is needed on how content and language issues are learnt and used in an integrated way. From a pedagogical perspective, research focusing on language in integration with academic content could provide interesting insights for successful language and content integrated

pedagogies, which could be especially interesting for content teachers participating in CLIL programs, with little or no knowledge of L2 learning models and teaching methodologies.

Over the last two decades, a model that has proved efficient in the integrated analysis of language and content at various educational settings around the world is systemic functional linguistics (SFL). This model is interesting for research on CLIL classroom discourse for three main reasons: (a) it allows for an integrated analysis of language and content, mainly through the application of genre and register theory (e.g. Martin, 2009); (b) it has already proven useful in its applications for successful pedagogy in L1 educational contexts (e.g. Coffin, 2006); and (c) apprenticing the students into the “language of schooling” (Schleppegrell, 2004), it aims to explain language use in context. In CLIL, the classroom is the main (or even only) context for L2 use and learning. Although most of the applications of SFL theory in educational contexts have been concerned with literacy, a few research studies have applied SFL (genre and register theory) to the analysis of CLIL classroom discourse, following the work carried out in other non-European contexts (e.g. Mohan & Beckett, 2003). These studies will be discussed below.

In this section, we present an overview of different European research studies on CLIL classroom discourse which have investigated the role of the L2 in the construction of knowledge. Some studies focus on language as product and others on language as process. Some studies are more related to language learning and others to language use, thus, connecting to the research described in the previous two sections.

4.1 Research on content and language integration as product — a focus on learning

One of the first frameworks designed for the integration of content and language objectives is Coyle’s (2007) “four Cs” model, which includes content, cognition, communication, and culture. Her proposal of three functions of language (language of learning, language for learning and language through learning) represents an example of how an L2 can be used for the construction of knowledge in CLIL classrooms. In relation to “language of learning” (the language needed for the expression of content), there are a number of studies that have applied SFL and, in particular, genre and register theory to the analysis of CLIL classroom spoken discourse. Some of these studies have analyzed the lexico-grammar used by students in secondary CLIL classrooms. In one of these studies, Whittaker and Llinares (2009) report that, in general terms, students’ use of process types and circumstances seem to match the expectations in the curriculum and are different in frequency across subjects (history and geography), as different subjects require

different ways of constructing meanings. Research on students' language achievement to display knowledge necessarily benefits from comparative studies between CLIL and similar classrooms in which the same academic content is learnt in the L1. In this sense, Llinares and Whittaker's (2010) comparative study of CLIL and parallel L1 classrooms revealed that L1 students were more proficient than CLIL students in the use of academic register, the former resorting more often to the use of phrases to express circumstances while the latter mainly used clause complexes. These two studies suggest that some academic language features might require special attention while others might be learnt and developed through mere participation in classroom activities. More studies along these lines, comparing students' performance in L1 and CLIL classrooms, would certainly help identify areas of difficulty specific for CLIL students.

Coyle's (2007) functions of "language for learning" and "language through learning" have been fully developed in Dalton-Puffer's (2007) seminal work on academic discourse functions, which are clearly related to the genre approach discussed above. In her analysis of CLIL classrooms in Austria, Dalton-Puffer (2007) argues that teachers should be made aware of the role of academic language functions, such as defining, explaining, hypothesizing. She gives the example of hypothesizing, which is an important academic function for cognitive and L2 language development but found to be rarely used in Austrian CLIL classrooms. Another study that focuses, in this case, on one specific academic function is Llinares and Morton's (2010) analysis of CLIL students' explanations. Comparing different contexts (class discussions and individual interviews with the students) and combining approaches (SFL-quantitative and CA/situated learning-qualitative), this study shows differences in the students' use of explanations in the classroom and in individual interviews when they were engaged in the discussion of the same topics and following the same prompt. The results show the role that the situated practices in which students participate have in their display of language and content knowledge through genre and register features. This study also shows the importance of combining different theoretical/methodological approaches in CLIL classroom discourse research.

4.2 Research on content and language integration as process — a focus on use

Drawing on classroom data from different European contexts (Spain, Holland, Finland and Austria), Llinares, Morton and Whittaker (2012) describe the various roles of interaction as a tool for learning language and content in an integrated way. They suggest a research framework based on three main levels, drawing on Mortimer and Scott's (2003) sociocultural model for science classrooms: focus (the kinds of meanings discussed), approach (the communication systems used to talk about content), and action (specific discourse actions carried out by teachers).

We begin by discussing CLIL research related to the level of focus. Within SFL, Christie's (2002) distinction between regulative and instructional registers as types of curriculum macrogenres has been applied in several CLIL classroom discourse studies. As mentioned before, Dalton-Puffer and Nikula (2006), for instance, distinguish the opportunities offered in instructional and regulative registers for CLIL students' use of directives. Llinares, Morton and Whittaker (2012) relate the notion of classroom registers to Mortimer and Scott's (2003) concept of focus in their framework for the analysis of communication in the science classroom. As Llinares, Morton and Whittaker (2012) highlight, both registers need to be analyzed interrelatedly, as teachers need to manage the social world of the classroom before examining the nature of content itself. Drawing on Bernstein's (1999) distinction between horizontal and vertical discourses, this study shows how classroom talk within the instructional register shifts between more everyday (horizontal) knowledge and more scientific (vertical) knowledge. Accordingly, CLIL learners' use of the L2 needs to shift between everyday and academic language, as well as between context-embedded (spoken) and written modes. Moving to the second level, that of approach, different communication systems allow for content to be discussed in different ways. A dialogic-interactive model, according to Llinares, Morton and Whittaker (2012), provides wide opportunities for CLIL students to be cognitively engaged, allowing them to move from everyday to academic discourse as well as providing opportunities for language "through" learning. This is also highlighted in Moate's (2010) sociocultural approach to CLIL, where she highlights the role of exploratory talk as related to dialogic talk: "Exploratory talk (ET) may be disjointed as thought-in-progress rather than the presentational talk of demonstrated learning. In ET both language and content learning goals come together as learners draw on growing awareness and ability" (Moate, 2010, p. 42). The third level (action) has been partly addressed in the previous sections, with reference to studies on the role of interaction patterns in CLIL. As part of this level, Llinares, Morton and Whittaker (2012) address the sociocultural concept of scaffolding, showing ways in which CLIL teachers, by carrying out a variety of principled actions, can support learners in developing complex linguistic resources for the different kinds of meanings relevant in CLIL classrooms.

Apart from SFL and other socioculturally-oriented studies discussed above, other approaches which view language in integration with content are socially-situated learning models. These models have been gaining relevance in SLA research and also, more recently, in CLIL classroom research. One of the first studies along these lines is Pekarek-Doehler and Ziegler's (2007) analysis of classroom interaction in a Swiss school in which students studied biology in English. Using a CA approach to the analysis of classroom data, they argue that talk cannot be described as being about some content in which formal language features can be

detached from the content being discussed. Rather than focusing on the “what” that is talked about and the formal features of the foreign language used to talk about it, the study analyzes the interactional competences required to participate in an activity in which students and teachers do not only talk about scientific content in an L2 but also act as expert or novice, teacher or student. The study shows how participants’ orientations towards content and language are interrelated as conversation unfolds. Another study that uses CA and the framework of communities of practice is Evnitskaya and Morton’s (2011) analysis of CLIL classroom discourse in two different Spanish contexts (Madrid and Barcelona). This study highlights the different communities of practice and identities created in two secondary CLIL classrooms in the same subject by means of multimodal resources. A third study along these lines is Kupetz’s (2011) analysis of explanations by German students doing geography in English. This study describes how students were able to use a variety of multimodal resources to construct subject-relevant meanings and how interactional competence was used to move from language-related to content-related meanings and vice versa. Within a discursive-psychological perspective, the interrelatedness between content and language in CLIL is also highlighted in Morton’s (2012) analysis of a CLIL teacher’s discursive practices used to work on her students’ “misconceptions” about a biology topic. The conceptual change happens as a result of the interaction between students and teachers in the L2 leading towards the scientific version pursued by the teacher.

The majority of the studies on CLIL classroom discourse, illustrated above, have investigated whole-class teacher-students interactions in CLIL secondary classrooms. However, some studies have focused on other educational levels (primary and tertiary) and on alternative classroom activities (group work, role plays, project work). As reported above, an overuse of the traditional IRF pattern may be restrictive for students’ participation in the foreign language in CLIL classrooms. However, as argued in Llinares, Morton and Whittaker (2012), the positive or restrictive effect does not depend so much on the pattern itself but on factors such as the roles of the participants and the activity type in which the IRF pattern takes place. In this sense, group work sessions, if carried out in the L2, offer the opportunity for students to use the L2 in all three moves of the IRF exchange and allow them to participate as “principals” or generators of ideas and concepts being discussed (Llinares & Morton, 2012) and not only as “animators” of the knowledge that they are expected to have acquired and to display. Another study that investigates group work activities (in comparison with whole-class sessions), following an SFL model, is Pastrana’s (2010) comparative study of primary and secondary CLIL classrooms. This study did not portray differences regarding register phases and type of communicative functions across levels (primary and secondary) but it did show differences across activities, with group-work sessions displaying a

wider array of functions and registers. Other classroom activities, such as role-plays, have also been seen to widen both the range of perspectives in learning the content as well as the variety of linguistic resources to express interpersonal meanings (Gassner & Maillat, 2006; Llinares, Morton, & Whittaker, 2012; Maillat, 2010). Regarding research at the tertiary level, Dafouz's (2007) systemic grammatical analysis of university lectures shows that these are complex genres that do not only include the transmission of facts but also encode multifaceted interpersonal relations that play an important role in the construction of knowledge.

To conclude this section, SFL, sociocultural, and situated learning approaches to CLIL classroom discourse all have in common the view of language learning and language use as inextricably linked to the actual classroom pedagogic aims (the knowledge and skills related to the specific subjects or disciplines under study). Regarding future research on knowledge construction in the L2, it is necessary to carry out more comparative studies between CLIL and L1 contexts, as well as more studies that combine linguistic models (SFL genre and register theory) with other models frequently used in general education research (sociocultural and socially-situated perspectives), drawing on previous studies that have been done on classroom discourse in L1 content teaching.

5. Conclusion

In this article, we have provided an overview of research on classroom discourse from three perspectives depending on whether the main focus lies on language learning, on language use, or on processes of knowledge construction in CLIL classrooms. These perspectives are obviously interrelated, as CLIL classrooms are simultaneously sites for language use, language learning, conceptual development and social conduct. However, we have shown how research orientations rooted in different theoretical and methodological backgrounds can shed light on specific aspects of the multifaceted CLIL reality, in totality unearthing important insights both about potential success factors and areas for further exploration.

While different research orientations will no doubt also in the future keep contributing to CLIL classroom research, offering crucial building blocks for an increased understanding of CLIL, we would also like to advocate for the combination of research. As argued by Llinares, Morton and Whittaker (2012), it is illuminating to combine, at the very least, linguistic models (such as SFL or discourse analysis), sociocultural models in education, and SLA approaches to classroom discourse and interaction. Sociocultural approaches, while providing interesting models for the analysis of knowledge construction in classroom discourse (such as the application of "scaffolding"), cannot describe language use in detail. On the

other hand, mainstream SLA approaches do not usually take into account the relationship between content pedagogy and opportunities for language learning and use. The SFL approach has the potential of linking the language and the content focus, but genre and register theory have been mainly applied to literacy development, and more work needs to be done on its applications for CLIL classroom discourse. Future CLIL classroom research would also benefit from complementing linguistically- and socioculturally-oriented analyses of classroom discourse with ethnographically-oriented approaches that would help highlight both the participants' emic understandings of CLIL as well as reveal the whole ecology (van Lier, 2004) of CLIL extending beyond the confines of the classroom to institutional cultures, societal factors including policy-level considerations, and prevalent discourses around language and education that impact on classroom realities.

There are also other areas requiring further research. Classroom discourse at the primary level is to date an underexplored area. Studies that exist, both on CLIL primary settings (Buchholz, 2007; Serra, 2007) and immersion kindergartens (e.g. Mård, 2002; Savijärvi, 2011) suggest that the role of L1 and learning as shared practice are important areas of inquiry when researching young learners. In a similar vein, although recent years have shown an increase in research on CLIL in tertiary education (see Smit & Dafouz Milne, 2012), there is room for more research also in this area to come to a better understanding of the whole CLIL continuum from primary to tertiary levels, and of the specificities and commonalities involved.

Other areas that have rarely been addressed in studies on CLIL classroom discourse concern longitudinal orientations that would help highlight how learning and socialization processes evolve over time (yet see Smit, 2010a), as well as studies on the role of assessment for learning in classroom discourse. Most importantly, useful descriptions of successful CLIL classroom discourse would need to be followed by their implementation in CLIL programs. Particularly relevant for this are studies comparing different geographical contexts, which would make it possible to identify both general features in CLIL and those specific for different contexts. Finally, an important desideratum for future research is for applied linguists to seek the collaboration of researchers in subject-specific education. Only when the rationales of both sides are brought to bear on each other in an interdisciplinary process can we hope to really make sense of content and language integration in ways that will both advance research and offer insights for developing CLIL practice.

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Notes

1. The *CLIL Compendium* was devised in the late 1990s by a transnational consortium of experts funded by the European Commission in order to foster transnational expertise and collaboration with regard to CLIL in Europe (www.clilcompendium.com). A later incarnation of the network was called *CLIL Consortium*; its website can be found at <http://clil.viu.es/>.
2. The two main registers of classroom talk are instructional and regulative; instructional register focuses on the give-and-take of subject-related information, while in regulatory register the focus is on managing activities and maintaining order in classrooms.

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Abstrakti

Content and Language Integrated Learning (CLIL) –käsitteellä tarkoitetaan oppiaineiden opettamista vieraalla kielellä. Vieraskielisestä opetuksesta on tullut laajasti hyväksytty koulutuksen muoto niin Euroopassa kuin muualla maailmassa. Tässä artikkelissa tarkastellaan ensin CLIL-tutkimuksen kokonaiskenttää ja pureudutaan sitten luokkahuonediskurssin tutkimukseen. Tutkimusalueen kompleksisuuden osoittamiseksi avataan vieraskieliseen opetukseen ja erityisesti luokkahuonediskurssiin kolme erilaista näkökulmaa, joilla on todistusvoimaa liittyen (a) kielen oppimiseen, (b) vieraskieliseen kielenkäyttöön ja vuorovaikutukseen sekä (c) vieraalla kielellä tapahtuvan tiedonmuodostuksen prosesseihin. Artikkelin lopuksi linjataan tulevan tutkimuksen tarpeita.

Abstrakt

Unter der Bezeichnung CLIL (Content-and-Language-Integrated Learning) hat das Unterrichten von Sachfächern in einer Fremdsprache in den letzten Jahren breite Akzeptanz in den Bildungssystemen Europas und anderer Teile der Welt gefunden. Dieser Beitrag skizziert kurz die gesamte Forschungslandschaft zu CLIL und widmet sich dann eingehend den vorliegenden Publikationen zur Unterrichtsinteraktion. Strukturiert wird diese komplexe Thematik durch die Wahl dreier komplementärer Perspektiven auf den CLIL-Unterrichtsdiskurs, nämlich als Evidenz für (a) Sprachlernen (b) Sprachgebrauch und soziale Interaktion und (c) Prozesse der Wissenskonstruktion in einer Zweit- oder Fremdsprache. Der Beitrag schließt mit einem Ausblick auf Forschungsdesiderate in diesem Bereich.

Resumen

Bajo el término CLIL (Content and Language Integrated Learning) la enseñanza de asignaturas del currículo a través de una lengua extranjera se ha convertido en un modelo educativo ampliamente extendido en Europa y otras partes del mundo. Una vez contextualizado el tema en el marco de la investigación sobre CLIL en general, este artículo se centra en la investigación sobre el discurso en el aula. Con el objetivo de desentrañar la complejidad del tema, se plantean tres enfoques sobre el análisis del discurso en CLIL como evidencia de: a) el aprendizaje de la lengua, b) el uso de la lengua y aspectos sociales de la interacción en la L2, y c) los procesos de construcción de conocimiento en y a través de la lengua. El artículo concluye con una relación de los requisitos necesarios para futuras investigaciones en el área.

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