

The Integrated Nature of CLIL: A Sociocultural Perspective

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Abstract

The aim of this article is both to explore the integrated nature of content and language integrated learning (CLIL) and to advance a more in-depth understanding of this integrated relationship from a sociocultural perspective. A sociocultural perspective has been adopted for two reasons: first, the emphasis placed on language as the primary tool mediating the construction of knowledge and understanding, and secondly the recognition of the fundamentally social nature of learning. Following a review of sociocultural principles, the article briefly considers three stages in negotiating the integration of content and language learning in CLIL leading to a more detailed consideration of exploratory talk as a potential tool in CLIL. This article belongs to an on-going research project to develop a sociocultural pedagogical model for CLIL.

Keywords: sociocultural approach, integration, interaction, exploratory talk

Introduction

The aim of this article is both to explore the integrated relationship of content and language integrated learning (CLIL) and to advance a more in-depth understanding of this relationship from a sociocultural perspective. A sociocultural perspective has been adopted for two reasons: first, the emphasis placed on language as the primary tool mediating the construction of knowledge and understanding, and secondly the recognition of the fundamentally social nature of learning. Seen from the sociocultural perspective language is a multifaceted tool: the medium of communication, the means of mediation, and the instantiation of perception. Language is required to access, construct and demonstrate learning. The implications of this will be considered in detail as the article progresses. Following a review of sociocultural principles, the article briefly overviews three approaches to integrating content with language learning leading to a more in-depth consideration of talk, particularly exploratory talk, in the negotiation of content with language learning.

The section which follows will highlight some issues fundamental to the sociocultural approach prior to turning specifically to CLIL. This overview is drawn primarily from the work of educational researchers such as Mercer, Littleton, Mortimer, Scott, Lemke, Vass, Rojas-Drummond and Driver. These researchers represent a broad range of expertise and have developed what are now well-established intervention strategies for supporting and resourcing productive educational dialogues. Their interests range from primary to secondary education, from science to creative arts in a range of contexts from Brazil and Mexico to the UK and the US. Whilst their work primarily deals with learning through the first language (although not exclusively) they offer an interpretation of the learning process that is highly complementary to the primacy of language in CLIL as an educational innovation. The ideas presented in this paper further draw on sociocultural literature from the field of second language learning including Lantolf, Swain, Thorne, Walsh and van Lier.

Sociocultural Approach: Fundamental Issues

From a sociocultural perspective, knowledge is understood as a historically constructed, culturally and socially contextualised entity instantiated in language. To unpack this dense definition, knowledge does not just exist as an independent body. Over time, through experience, observation and interpretation (Driver et al., 1994) knowledge grows. Understanding supports steps to further knowledge growth and tools support the exploration and construction of greater understanding. For example, numbers arranged into equations allow us to work with more complex mathematical concepts. Similarly words embody conceptual understanding in different ways. Matter can be presented from an atomistic view, from a quantum view or a progressive view. These different understandings are ontologically and epistemologically different (Driver et al., 1994). Each interpretation is valid and constitutes a different language representative of a different scientific community.

Knowledge constructed within and recognised by a community becomes part of the collective resources belonging to that community. Learning within a community can thus be regarded as a process of 'appropriation', whereby the knowledge of the community becomes meaningful to individual members. The sociocultural perspective rejects the idea that each learner 'discovers' knowledge as an individual. Rather experts (teachers) act as authoritative mediators of knowledge, apprenticing novices (learners) into existing bodies of knowledge. This process, however, requires the active participation of the learner. The social encounter with knowledge mediated by the expert is only the first step in the construction of personally meaningful understanding. From this perspective language instantiates knowledge and is the tool enabling the guided construction of knowledge (Mercer, 1995).

The social nature of learning is reflected in Mercer and Littleton's explanation that "learning and development are seen as both interpersonal and intrapersonal mediated by cultural tools: mind emerges in the course of joint activity" (Mercer and Littleton, 2007:14). In line with Vygotskian thinking, language enables a reciprocal relationship between knowledge on the social (intermental) plane, before appropriation of understanding on the psychological (intramental) plane. The social dimension is more than a safe, supportive environment: it is the area within which learning actually occurs. It is worth noting that the emphasis placed on learning as occurring initially on the social rather than psychological plane, differs from individualised accounts of learning based on cognitive ability. This approach adds a significant intermediary with regard to the social encounter with knowledge and the transactional relationship between expert and novice.

Dual goals of CLIL

An early definition of the twofold aims of CLIL is: "to provide learning outcomes in the chosen subject ... at the same level as the standard mother tongue curriculum; and, to provide learning outcomes in the L2 which exceed the standard curriculum" (Masih, 1999:8). The positive learning outcomes associated with CLIL in recent research (e.g. Baetens-Beardsmore, 2008) reaffirm the validity of these goals. Looking at the role of language in subject pedagogies may support the effective negotiation of content and language interests and concerns in CLIL.

Subject learning from a sociocultural perspective can be defined as a dynamic, interactive process under the expert guidance of the teacher in which learners are apprenticed into the ways of thinking, practices and discourses of a specific subject community. Pupils come to school with an everyday understanding of the world which needs to be transformed into the systematic knowledge of a subject community. This demanding process cannot be achieved through the transmission, rather the transaction of subject knowledge mediated by language. The appropriation of new frames of reference involves learning new ways of perceiving, interpreting and representing the world according to specific criteria. Different subject communities hold different values, the argumentative basis for historical interpretation is not the same as for scientific interpretation. The representational means of science differ from the representational forms of the art class. The role of personal stories in religious education does not meet with the rigours of scientific experimentation, although each approach is valid within its specific subject community.

Whilst the conceptual basis of the content determines class activities and the 'learning demand' of the subject (Mortimer and Scott, 2003), language expresses and enables access to concepts. Learning the language of a subject community is synonymous with learning the way a community thinks, one cannot be learnt without the other (Lemke, 1989; Mercer and Littleton, 2007; Mortimer and Scott, 2003). Learning the terminology, however, is only the start of understanding. Acculturation into and appropriation of the talk and practices of a subject requires time: "there is a difference between talking about a practice from outside and talking within it" (Lave and Wenger, 2000: 29). Students need opportunities to construct their own understanding of subject community knowledge, using appropriate frames of reference and vocabulary under expert tutelage. Further integrating content teachers into the discourse about how language mediates content learning would provide complementary insight into language practices relevant to CLIL.

Language learning from a sociocultural perspective "...is where language use and language learning can co-occur. It is language use mediating language learning. It is cognitive activity and it is social activity" (Swain, 2000: 97). From this perspective language is not input, but "a resource for participation" (Zuengler and Miller, 2006:37) with participation offering "an opportunity to create yet more tools and new ways of meaning through collaborative activity with other users of the target second language" (Thorne, 2000:200). Dialogic interaction feeds not only individual development, but the resources available to the community – or affordances (van Lier, 2000). In the CLIL classroom students are being simultaneously apprenticed into two communities – into the educational community of the classroom as well as the expert community of the subject. Participation in these two communities creates different language demands relevant to both mother tongue and CLIL contexts. Before turning to the implications of a sociocultural approach to CLIL, the following sections consider established forms of CLIL integration.

Generic language skills

A review of earlier CLIL literature supports generic language strategies to support the handling of subject material in CLIL classrooms. Learning with Languages (Marsh and Marsland, 1999) offers an extensive overview of activities to support different strategic approaches including, for example, pre-, while-, and post-reading strategies. Pre-writing strategies and process writing techniques are also supported in other CLIL literature (e.g. Coyle, 1999; Mehisto et al., 2008). This strategic approach provides practical guidelines for supporting language use across the curriculum and is particularly relevant to CLIL providing basic tools to support the more explicit needs of learning through a foreign language. CLIL literature also presents a broad variety of other strategies for supporting language learning including cognitive strategies, drama-based approaches, and vocabulary building techniques, cultural, international and cross-curricular projects. These approaches highlight the innovative nature of CLIL and the methodological drive on which it is based (Marsh, 2002). They do not, however, fully explore ways of helping teachers and students to develop and apply various types of talk nor do they address the different language cultures of different academic subjects.

Genre-based integration

The Council of Europe publications on the languages of schooling provide a comprehensive picture of the different discourses and roles of language in different subjects. Although language as a tool is present across the curriculum; the character of language changes as it instantiates the different perceptions of different communities. This is effectively exemplified by Unsworth (2001) who demonstrates that subject community activity leads to the production of different text genres. Different genres serve different social purposes and can be broken down into distinct stages. Understanding the social purpose of a text supports access to the structure of the text. Orientation to the text-type and aim contextualises the vocabulary used within the text. Through this approach the implicit knowledge of the community expert (e.g. how to read a particular text-type) becomes explicit and is less dependent on the linguistic features of a text. This highlights the role of culture in learning: each subject area represents a different cultural group with its own distinct understanding of the world "and whatever is known is inseparable from the symbols (mostly words) in which the knowing is codified" (Barbero et al., 2009). Students are being simultaneously apprenticed into both the knowledge structures and language of a subject.

To support this apprenticeship a range of activities have been suggested for handling texts which also take into consideration the different ways in which texts support the learner's relationship with the subject matter (e.g. Davies and Greene, 1984). Some of these activities are familiar to the language classroom, others less so. Reconstruction activities including: text completion, sequencing, prediction, table and diagram completion aid the reviewing of information. Activities to support the analysis of texts include: text marking, labelling, segmenting, table and diagram construction, pupil-generated questions and writing summaries. The rationale behind these activities aims to increase the depth of interaction between learners and subject matter. The completion of a table or diagram involves the extraction of information, whereas the production of a table requires understanding and supports the more active construction of knowledge.

The genre-based approach addresses the concerns of both subject and language learning and supports both the content and language goals of CLIL offering a more balanced partnership. This macro approach to text-handling invites learners into the knowledge and language of the subject community, allowing learners to participate albeit as novices within the subject community. Participation, prior to micro-consideration of individual language items, may well offer a frame of reference for subject terminology which is similarly 'foreign' in the mother tongue.

Fundamental integration – language in learning

To return again more explicitly to the sociocultural perspective, the role of language in learning offers an even more fundamental form of integration. Language is "without doubt the most ubiquitous, flexible and creative of the meaning-making tools available" (Mercer and Littleton, 2007:2). Whilst other tools are available, for example illustrations, graphic organisers, realia and gestures; language is the primary tool in both pedagogic and learning repertoires. Language is the tool of engagement between learner and teacher, learner with subject, learner with learner and "it is one of the materials from which the child constructs a way of thinking" (Edwards and Mercer, 1987: 20). The type of language in which learners construct thinking, however, is not presentational language rather exploratory talk, i.e. "hesitant and incomplete because it enables the speaker to try out ideas, to hear how they sound, to see what others make of them, to arrange information and ideas into different patterns" (Barnes, 2008:5).

Recognition of the value of exploratory talk in mainstream education has led to a collaborative understanding of learning beyond interaction to 'interthinking' (Mercer and Littleton, 2007:4) that through talking together, learners think together. This sociocultural approach then "raises the possibility that educational success and failure may be explained by the quality of educational dialogue" (Mercer and Littleton, 2007:4) placing talk at the centre of the teaching-learning stage with significant improvements in classroom collaborations and learning outcomes (e.g. Wegerif, et al. 2004). A similar phenomenon can perhaps be seen in the foreign-language mediated context of CLIL which: "leads to more intensive interaction between teachers and learners, which increases the opportunities to use the target language for the acquisition of non-linguistic content-matter" (Baetens Beardsmore, 2008:9). Reiterating the idea that "an ability to understand interactional processes at work is crucial to facilitating learning opportunity" (Walsh 2006: 16: *ibid.* 2002).

Educational researchers Pierce and Gilles (2008) have built on the original concept of exploratory talk to create a typology identifying different forms of interaction in learning instantiated in talk. This talk-typology aims to develop a classroom culture supportive of critical conversations. This approach supports learner participation in both the educational discourse of learning and apprenticeship into the expert community. Awareness of the talk-types outlined here offers teachers a useful tool to add to their repertoire providing a pedagogic lens through which teaching and learning activity can be viewed. With regard to the CLIL classroom, this typology of talk offers a framework for the fundamental integration of subject with language learning.

Social talk is the first step in "community building" that is "talk to connect students to each other socially, so they begin to care about and trust each other" (Pierce and Gilles 2008: 40). This talk originates in everyday language and activity and seeks to open channels of communication as learners find their own voices. A second talk-type is *meta-talk* which is the explicit awareness of talk as a tool: how language functions, influences, how the skill of talk can be practiced and

honed. Meta talk relates most closely to the generic and genre-based language strategies referred to earlier. The third talk-type of *critical talk* aims to consider and inspire change. In critical talk learners identify and question established frames of reference and understanding. As critical talk seeks to recognise and question prior and everyday knowledge, so the gap or 'learning demand' (Mortimer and Scott, 2003) between existing understanding and the knowledge of the target community should become apparent. In contrast the fourth talk-type *expert talk* is more presentational in nature instantiating community knowledge. As learners are apprenticed into the systematic knowledge of a subject community (Unsworth, 2001) specific discourse forms and terminology with specific conceptual connotations are encountered. Learners need access to this language to enter the community, and to demonstrate mastery of the language to display learning. These four talk-types encompass the complex social and cultural setting of the classroom. From the sociocultural perspective, however, it is explicitly in the fifth talk-type, in *exploratory talk*, that the process of learning takes place.

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. As subject-related questions are formed, students draw on new terminology; to form understanding learners are required to engage with appropriate discourse. In ET novices learn the feel of new sounds and concepts whilst expertise in both language and subject knowledge grows. The dialogic nature of talk supports the co-construction of knowledge or interthinking on the social plane, before understanding is appropriated on the individual psychological plane. As a sociocultural pedagogic framework this typology is valuable as it opens channels of communication, encourages the use of tools, requires action through critical thinking and aims for participation within a specific target community, but what is of paramount importance is that it assigns a fundamental place for learning within the collaborative talk of learners. In its representation of talk, this typology not only promotes awareness of the value of talk but it also offers a framework for the effective management of educational discourse fundamental in the teaching-learning process also relevant to CLIL.

Targeting ET as a desirable form of educational discourse in the classroom, however, is challenging. Introducing ET involves establishing a culture of talk, creating a 'collaborative space' (Vass et al., 2008) as a place where learners can try out ideas, confront former understandings, and negotiate together new understandings. The collaborative nature of ET provides multiple perspectives on issues at hand, slowing down and deepening the decision-making process as knowledge is jointly constructed. Mutual commitment to ET motivates and frames activity, whilst giving freedom to explore ideas, justifications and reasons before drawing conclusions. The interactive, structured culture surrounding ET clearly represents a different type of classroom environment compatible with the active participation encouraged in CLIL. ET as an act of "negotiation of meaning" (Walsh, 2006) is not only "helpful in the acquisition of new vocabulary, in encouraging learners to reformulate their contributions and in bringing learners' interlanguage in line with target language" (ibid. 2006: 22) but simultaneously supports the joint construction of knowledge (Mercer, 1995).

A broad variety of studies have used ET to enhance the collaborative nature of classroom learning. Whilst different contexts have reworked and refined the basic ground rules (Wegerif et al., 2004, Mercer and Dawes, 2008) to suit their own setting, each study has shown the necessity of time for such a culture to develop. The basic principles on which ET is derived are as follows: firstly, *commitment* that is learners, in addition to teachers, are committed to working together through a process to reach an intellectually-satisfying conclusion. Secondly *transparency*, all relevant information is shared making the joint resources of the group available to all the members of the group throughout the discussion. The third principle is *consideration* both to each other as group members that everyone is invited and expected to participate, and in addition full consideration is given to each suggestion as reasons are explored and challenges made. The final principle is *joint ownership*, that the final conclusion of the group must be accepted by each group member as a result of the reasoned discussion process.

These principles create cultural expectations as well as interactive behaviour. This kind of talk involves, allows, indeed encourages, intellectual risk-taking and it is valued in an educated society for its productive, inspirational, collaborative quality (Mercer and Littleton, 2007). Whilst the value of ET as an educational tool in mainstream education is already established, the potential of ET to support the dual-goals of CLIL requires increased intentional support in the FL-mediated context of CLIL. To support this interaction, teachers have to model ET, create opportunities for use and generate meta-awareness of the kind of language indicative of a collaborative environment. Formulaic phrases can be given to help children adopt this kind of language, and over time children readily appropriate and employ such language to support their own learning (Mercer and Littleton, 2007). Through this collaborative community pupils enter into both the discursive life and work of the classroom. This experience closely resembles the use of language frames in CLIL and the appropriation of educational and expert discourse, a fundamental goal of CLIL.

The collaborative nature of learning represented in exploratory talk highlights language as the tool for knowledge construction with reference to both subject and language knowledge. As ideas are verbalised on the social plane, they become manageable, that is a *product* to be critically considered. The very *process* of verbalisation also serves several functions: “it focuses attention; it externalises hypotheses, tests them and supplies possible solutions, and it mediates their implementation of such strategic behaviour as planning and evaluating” (Swain, 2000: 108). Swain’s comments here explicitly refer to the appropriation of foreign language, but could equally apply to the construction of subject knowledge. ET provides an innovative educational tool based on the use of language for the development of thinking which should not be ignored. To provide learners with an opportunity to build on everyday, functional language skills and to incorporate into that academic discourse whilst entering into a subject community are the goals of CLIL in a nutshell. ET based on sociocultural principles offers a pedagogically valid means of implementation in the CLIL classroom. This complements and supports the role of interaction in L2 learning (Walsh, 2006) and the more dialogic classroom environment generated by CLIL (Nikula, 2008).

Implications

The sociocultural placement of language at the heart of the learning process requires a significant reworking of classroom dynamics in pedagogical understanding as well as practice. This change is already being realised in CLIL practice with the identification of the multiple feedback turns as compared to the traditional IRF (initiation, response, feedback) interactional pattern (Nikula, 2007). A more powerful form of interaction could perhaps be realised with the IDRF (initiation, **discussion**, response, feedback) pattern of dialogic classrooms (Wegerif, 1996 cited in Mercer, et al. 2004). IDRF explicitly moves away from quick-fire responses, giving space for learners to think, generate ideas and presentational means before publically responding and receiving teacher feedback, a space highly valuable in a FL-mediated environment.

Fostering a culture of collaborative learning through talk in CLIL goes far beyond the communicative approach of language teaching as learners under the guidance of their teacher seek to enter into a knowledge community, in effect a cultural apprenticeship served through language. In addition to the formal curriculum being “the hook on which to hang language development” (Clegg, 1996:15 cited in Gibbons, 2002:120) the enacted curriculum in the classroom is where the fundamental negotiation between content and language goals is realised. The talk of the classroom is the location in space and time where learning is happening.

The collective goal and collaborative nature of learning in the sociocultural classroom offers CLIL an array of conceptual tools to capitalise on. The primacy of language not only supports both content and language learning, but provides a fundamental basis for the negotiated relationship between these dual goals. Furthermore, the social nature of learning utilises the available resources in the classroom in terms of individual learners, the learning community and teacher expertise. The conceptual and cultural tools offered in sociocultural educational research and in particular the five talk types support the interactive, participatory nature of CLIL and provide an interesting basis for developing the pedagogy and practice of CLIL in the future.

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