

Critical Analysis of CLIL: Taking Stock and Looking Forward

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The growing interest in Content and Language Integrated Learning (CLIL) has resulted in enthusiasm in and active pursuit of improved methods of foreign/second-language (L2) teaching in Europe. However, the definition and scope of the term CLIL both internally, as used by CLIL advocates in Europe, and externally, as compared with immersion education in and outside Europe, indicate that the core characteristics of CLIL are understood in different ways with respect to: the balance between language and content instruction, the nature of the target languages involved, instructional goals, defining characteristics of student participants, and pedagogical approaches to integrating language and content instruction. We argue further that attempts to define CLIL by distinguishing it from immersion approaches to L2 education are often misguided. The aim of this article is to examine these ambiguities and to call for clarification of the definition of CLIL. Clarification is critical if CLIL is to evolve and improve systematically and if CLIL educators are to benefit from the experiences and knowledge acquired in other educational settings.

1. INTRODUCTION

The term Content and Language Integrated Learning (CLIL) was launched in Europe in the 1990s by a group of experts from different backgrounds, including educational administrators, researchers, and practitioners¹ (Marsh 2002). Since then, the European Commission and the Council of Europe have funded many initiatives in support of CLIL because it responded to a need in Europe for enhancing second-language (L2) education and bilingualism that was well received; in Marsh's words, it was '*...a pragmatic European solution to a European need*' (Marsh 2002: 11). According to CLIL advocates, there was a need for CLIL in Europe because European approaches to bilingual education were being described using terms '*"borrowed" from other contexts with over 30 descriptors to choose from, but especially drawing on immersion and bilingual movements in the USA and Canada*' (Coyle 2007a: 544). The desire for a distinct European frame of reference for promoting L2 competence in schools is exemplified by Coyle (2008: 97), who considers CLIL to be unique and different from '*bilingual or immersion education and a host of alternatives and variations such*

as content-based language teaching, *English for Special Purposes, plurilingual education*'. However, although CLIL's origins in Europe might make it historically unique, this does not necessarily make it pedagogically unique. In fact, we will show shortly that definitions of CLIL and the varied interpretations of this approach within Europe indicate that it is understood in different ways by its advocates. As well as being internally ambiguous, the term CLIL is not clearly defined when compared with other approaches that integrate content and language teaching for L2 learning.

The aim of this article is to examine these ambiguities both internally, within Europe and among CLIL advocates, and with special reference to the similarities and differences between CLIL and immersion education programs, which are often used as a frame of reference to distinguish CLIL. Clarifying the definition of CLIL internally is critical if it is to evolve and improve systematically because without a common understanding of CLIL, there can be no coherent evolution. Clarification of the definition of CLIL with respect to other forms of content-based L2 education is necessary if CLIL educators are to benefit from the experiences and knowledge acquired in other educational settings. To rarify the concept of CLIL so that it is seen to be totally distinct from other forms of integrated L2 and content-based instruction (CBI) is to effectively preclude learning from the experiences of other educators and from the findings of educational researchers working in other settings. This may not be in the best interests of teachers and students in CLIL classrooms.

In the next section, we present and analyze the definitions that have been given to CLIL in the European context. We then compare characteristics of CLIL that are often cited as evidence of its distinctiveness with characteristics of immersion education so as to ascertain the similarities and differences between these two popular forms of L2 education. The results of these analyses, we believe, call for a clearer and more fine-tuned definition of CLIL that is pedagogically useful, a topic we discuss in section 5.

2. DEFINITION OF CLIL

There are a variety of definitions of CLIL, but Coyle *et al.* (2010: 1) provide a succinct definition that refers to its specific features. 'Content and Language Integrated Learning (CLIL) is a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language'. According to this definition, CLIL can include a wide range of educational practices provided that these practices are conducted through the medium of an additional language and '*both language and the subject have a joint role*' (Marsh 2002: 58). The dual role of language and content has been understood in different ways. According to Ting (2010: 3), '*CLIL advocates a 50:50/Content: Language CLIL-equilibrium*'. However, research conducted in actual CLIL classrooms shows that it is difficult to achieve a strict balance of language and content (Dalton-Puffer 2007; Mehisto 2008; Pérez-Vidal and Juan-Garau 2010). According to Marsh (2002), there should always be a

dual focus on language and content for instruction to qualify as CLIL, even if the proportion is 90 per cent versus 10 per cent. However, a view of CLIL that embraces such wide variation in content and language instruction is problematic because it is difficult to imagine a traditional non-CLIL L2/foreign language class with a less than 10 per cent focus on some type of content. Such a flexible definition makes CLIL very broad, but arguably overly inclusive and at the expense of precision.

Coyle's definition also refers to CLIL as an 'educational approach'. However, this is understood in different ways. More specifically, some scholars view CLIL largely in terms of the actual instructional techniques and practices used in classrooms to promote L2/foreign language learning (Ball and Lindsay 2010; Hüttner and Rieder-Bünemann 2010). Indeed, the conceptualization of CLIL as '*essentially methodological*' (Marsh 2008: 244), '*a pedagogic tool*' (Coyle 2002: 27), or '*an innovative methodological approach*' (Eurydice 2006: 7) is widespread. Yet, other scholars consider CLIL in largely curricular terms (Langé 2007; Navés and Victori 2010). Baetens Beardsmore (2002: 25), for example, explains that CLIL is flexible regarding curricular design and timetable organization '*ranging from early total, early partial, late immersion type programs, to modular subject-determined slots*'. A conceptualization of CLIL with reference to curriculum is complicated further insofar as the link between language and content can take the form of a theme or a project and does not necessarily mean the use of an additional language as the medium of instruction for a whole school subject, as pointed out by Coyle (2007a). Finally, yet another conceptualization of CLIL refers to it in largely theoretical terms as the interplay of the theoretical foundations of constructivism and L2 acquisition (Marsh and Frigols 2013).

As can be seen from the preceding text, there are different conceptualizations of CLIL, including views that it is an educational approach that focuses on the classroom-level and specific pedagogical practices, to views that emphasize its foundations in constructivism and L2 acquisition theories (Halbach 2010; Ioannou Georgiou 2012). In some cases, CLIL is defined as a whole program of instruction and in other cases, as isolated lessons or activities conducted in an additional language. As Coyle (2008: 101), one of the most representative and seminal scholars of CLIL, points out '*there is a lack of cohesion around CLIL pedagogies. There is neither one CLIL approach nor one theory of CLIL*'.

The definition of CLIL also includes reference to an additional language as a medium of instruction, as exemplified in the quote from Coyle. '*Additional*' language was defined by Marsh (2002: 17) as any language other than the first language, including foreign language, L2, or minority language. This view is shared by those who launched CLIL and coined the term CLIL in the first place (Wolff 2007a; Coyle 2008) and is also expounded by the Eurydice (2006) report on CLIL. However, CLIL has often been identified exclusively with English-medium instruction because it has had an especially significant impact on scholars, teacher trainers, and teachers who work in English-as-a-

second or foreign language contexts (Dalton-Puffer *et al.* 2010a; Whittaker *et al.* 2011).

CLIL is often referred to as an ‘umbrella’ term that includes many variants and/or a wide range of different approaches (Hondris *et al.* 2007; Marsh 2008). For example, according to Mehisto *et al.* (2008: chapter 1), CLIL includes the following educational approaches: ‘language showers’,² CLIL camps, student exchanges, local projects, international projects, family stays, modules, work-study abroad, one or more subjects, partial immersion, total immersion, two-way immersion, and double immersion. CLIL can even go beyond school contexts to include everyday activities, provided they take place in an L2/foreign language. Whereas on the one hand, all of these learning contexts are arguably examples of opportunities to learn language through content (a core element of CLIL), on the other hand, it is otherwise difficult to identify specific characteristics of these learning environments which they all share and which, thus, make them all equally and uniquely part of CLIL. In other words, the possible forms that CLIL can take are so inclusive that it is difficult to think of any teaching or learning activity in which an L2/foreign language would be used that could not be considered CLIL. Moreover, such an inclusive conceptualization of CLIL makes it so general as to lack practical or theoretical utility. For example, it is difficult, if not impossible, to identify pedagogical tools or theoretical constructs that apply to all or even most of these contexts/activities that are unique to CLIL as an educational approach to language and content learning.

In short, the use of CLIL as an umbrella construct makes it difficult ‘to pin down the exact limits of the reality that this term refers to’ (Alejo and Piquer 2010: 220) and, thus, to distinguish CLIL learning environments from non-CLIL learning environments, except in cases where there is exclusive instruction in the target language with absolutely no content as a vehicle for instruction; even the latter type of learning environment is probably difficult to find at present. Some of the most well-known advocates of CLIL are aware of this dilemma. Marsh (2008: 233) points out ‘Applications of CLIL are multifarious depending on educational level, environment and the specific approach adopted’. Similarly, Coyle (2010: vii) writes that ‘There are no set formula and methods for CLIL’ and that ‘...we know that there is neither one model which suits all CLIL contexts nor one approach to integrating content and language teaching...’ (Coyle 2007b: 49). Dalton-Puffer *et al.* (2010b: 3) argue that the term CLIL ‘has acquired some characteristics of a brand name, complete with the symbolic capital of positive description: innovative, modern, effective, efficient and forward-looking’. It is these very positive associations of CLIL that have attracted researchers, administrators, teacher educators, and teachers, particularly those in the field of English as an L2/foreign language. At the same time, such a broad concept of CLIL is ‘slippery’ because it ranges from the original broad view that includes different types of programs with use of an L2/foreign language as the medium of instruction (in and even outside of school) to a narrow vision of CLIL as representing specific pedagogical tools for teaching isolated content

through the medium of English (English for Special Purposes (ESP), for example). Compared with traditional L2/foreign language teaching, the cornerstone of CLIL is content and this is often considered to be different and innovative (Marsh and Frigols 2013). At the same time, other forms of CBI, including different types of immersion programs, have a long tradition in L2/foreign language education in Europe and other parts of the world. This raises the question of whether and how CLIL is really different from other types of CBI and, in particular, immersion.

In summary, we have sought to show that the scope of CLIL is not clear-cut and, as a consequence, its core features cannot be clearly identified. We would argue that this lack of precision makes it difficult for CLIL to evolve in Europe in a pedagogically coherent fashion and for research to play a critical role in its evolution.

3. HOW DOES CLIL RELATE TO IMMERSION?

To better define and, therefore, understand CLIL, we discuss the relationship between CLIL and foreign language/L2 immersion programs. We have chosen to focus our discussion in this way for three reasons. First, immersion programs are among the most widespread bi-multilingual education programs, not only in North America but possibly around the world. For example, there are immersion programs in Estonian for Russian-speakers in Estonia (Mehisto and Asser 2007), English for Japanese speakers in Japan (Bostwick 2001), Basque immersion for Spanish speakers in Spain (Cenoz 2009), Swedish immersion in Finland (Björklund 1998), and Maori immersion for English-speaking children in New Zealand (May 2013). Secondly, this comparison is intended to examine the extent to which immersion programs and CLIL are similar and different with the ultimate goal of ascertaining how each can inform the other with respect to theory development, research findings, and educational policy and practice. In other words, we think that such a discussion can reveal to what extent and how experiences with immersion can guide efforts at CLIL and, conversely, how experiences with CLIL can inform those working in immersion programs. In the case of CLIL, at issue is how to maximize the educational outcomes of European students and students in communities around the world where CLIL is being used by drawing on research on immersion. We believe that it behooves educators, researchers, and policy-makers to draw on all sources of pertinent knowledge possible to ensure success for these learners. Finally, comparing CLIL and immersion is also important because there is a great deal of ambiguity about this relationship among CLIL advocates. In fact, adoption of the term CLIL in the beginning was linked to the rejection of the term immersion. For example, Coyle (2007a: 544) explained the need for the term CLIL because ‘*“immersion”*, though used in some European countries, was not widely favoured due to its close association with Canadian models’. Similarly, Marsh (2002: 57) pointed out that ‘*Recognition that Europe is not Canada, not as a whole, or even in terms of most regions, led to a seeking out for*

alternative terms'. Despite such assertions, and as we have already seen in the previous section, Mehisto *et al.* (2008) consider that immersion programs are CLIL.

French immersion programs were developed in Canada in the 1960s. In these programs, at least 50 per cent of academic instruction is delivered through French (or other non-native languages of the participating students) during some part of elementary and/or secondary school for majority language English-speaking students. Immersion is commonly defined as an educational program in which an L2 or a foreign language is used for academic instruction. There are different types of immersion programs (partial, total, early, middle, late, dual, double, ...); they are offered in different languages in Canada and, indeed, around the world (Genesee 1987, 2004).

Immersion programs can be viewed as a form of 'content-based second language instruction' (or CBI). Although, according to Met (1998), students in CBI programs always engage in learning some type of content through the medium of an L2 or a foreign language, CBI is not a unitary approach to teaching language and content. Met distinguishes different types of CBI using a continuum that goes from content-driven instruction to language-driven instruction. Immersion programs are placed toward the content-driven end of the continuum (Met 1998). Content-driven instruction has content learning as priority and language learning is secondary (Met 1999). In fact, as Genesee and Lindholm-Leary (2013) point out, in immersion programs, language learning is often incidental to learning prescribed academic knowledge and skills.

Many advocates of CLIL have highlighted the differences between CLIL and immersion (Pérez-Cañado 2012). Differences between CLIL and immersion often focus on the goals of each approach, students' and teachers' profiles, the target languages, the balance between content and language instruction, and other pedagogical issues. We discuss each of these in turn.

3.1 Goals

CLIL and immersion have been distinguished from one another with respect to differences in students' putative motivations. To be more specific, according to Hofmannová *et al.* (2008: 22), '*Young Europeans in general have pragmatic goals, similar to instrumental motivation. They want to make themselves understood when they travel, seek new friendships and acquire knowledge*'. Hofmannová *et al.* (2008) imply that outside Europe, students in immersion and other bilingual programs are motivated to learn the L2 to integrate with native speakers of the target language. The claim that students in CLIL versus immersion programs have distinct patterns of motivation is, in fact, difficult to substantiate owing to a lack of empirical evidence and, moreover, a lack of prime face validity for this argument. To be more specific, Canadian students in French immersion programs, for example, are also instrumentally motivated—to enhance their job prospects in Canada and around the world as a result of knowing an additional

language along with English; albeit an important additional motivation for Canadian immersion students might be to integrate with native speakers of the target languages in communities where there are French-speaking Canadians.

Lasagabaster and Sierra (2010) distinguish between the language-learning goals of programs in Spain where Basque and Catalan are used as languages of instruction, which they call immersion, and programs using English as the additional language of instruction for one or two school subjects, which they consider CLIL. The underlying distinction that is implied here appears to be that the goal of immersion programs is native-like proficiency in the target language, but the goal of CLIL is much less advanced levels of L2 proficiency (Marsh 2002). However, this distinction does not always apply. For example, Várkuti (2010: 68) states that 'bilingual schools' in Hungary that use *'the CLIL approach'* ... *'are expected to produce ideal balanced bilinguals'*. Whereas native-like proficiency in the target language is ambitious and, arguably, perhaps often unrealistic, the language-learning goals for CLIL programs in countries such as Sweden and the Netherlands are often very high, and, indeed, the level of achievement in English-as-a-second language among school-aged students in these countries is very high (European Commission 2012). Additional evidence against the claim that the goals of CLIL and immersion are distinct comes from an examination of the goals of immersion programs in North America and elsewhere. Immersion programs in French, Spanish, and English for majority language students in Canada, the USA, and Japan, respectively, do not expect students in these programs to attain native-like proficiency, but rather advanced levels of functional proficiency.

3.2 Students

Differences between immersion and CLIL also draw attention to student profiles. More specifically, those who view CLIL as distinct from immersion often assert the former, but less so the latter, is open to all students. To be more specific, according to Marsh (2002:10), for example, *'Egalitarianism has been one success factor because the approach is seen to open doors on languages for a broader range of learners'*. Similarly, Wolff (2002: 48) claims that *'CLIL is not an elitist approach to language learning; it functions in all learning contexts and with all learners'* (Baetens Beardsmore 2007). Coyle *et al.* (2010: 2) also consider CLIL to be appropriate *'for a broad range of learners, not only those from privileged or otherwise elite backgrounds'* as compared with the past when *'learning content though an additional language was either limited to very specific social groups, or forced upon school populations from whom the language of instruction was a foreign language'*. Although these claims may be accurate in some European contexts where use of an additional language as the medium of instruction has often been associated with elite private schools, it does not follow that such openness is characteristic of all CLIL contexts nor that it is uniquely characteristic of CLIL. Such claims ignore European immersion programs that use a minority

language as the language of instruction for all and any speakers of the majority language. For example, in the Basque Autonomous Community, where the main language of instruction can be either Basque or Spanish, more than 90 per cent of school children have Basque as a language of instruction even though the percentage of Basque speakers in the region is approximately 30 per cent. These programs are open to the whole school population, and schools teaching through Basque (which is an L2 for a large number of students) serve children from different socioeconomic backgrounds (Cenoz 2009). In North America, as well, immersion programs are widely available to students with diverse backgrounds, including students from families with low socioeconomic status (Caldas and Boudreaux 1999; Genesee 2007) and minority ethnolinguistic groups (Holobow *et al.* 1991).

In contrast to the notion that CLIL serves all students, some scholars point out that CLIL programs are not available for all students (Mehisto 2007; Lasagabaster and Sierra 2010; Bruton 2011). Mehisto (2007: 63) notes that '*CLIL can attract a disproportionately large number of academically bright students*'. Bruton (2011: 524), who is very critical of some research studies on the outcomes of CLIL, shares Mehisto's concern noting that '*many of the potential pitfalls which CLIL might encounter are actually avoided by selecting for these programs students who will be academically motivated to succeed in the FL (foreign language), as in other subjects*'. Lasagabaster and Sierra (2010: 372) point out that, with respect to immigrant students in Spain, what they understand as CLIL programs, namely, those using English as the language of instruction, may be more elitist than immersion programs insofar as '*Immigrant students are usually enrolled in immersion programs [...], whereas they seldom[...] take part in CLIL programs*'. According to these authors, and contrary to those who claim that CLIL is more accessible than other types of content-based L2 education, CLIL may actually be more elitist. At the very least, claims concerning the relative accessibility of CLIL in comparison with other content-based language options, and most importantly immersion, demonstrate a relatively superficial knowledge of different types of immersion education and the student populations they serve. All things considered, it would appear that there are no grounds for claiming that CLIL is typically and uniquely less elitist than immersion.

3.3 The target language

It has also been claimed that CLIL is distinct from immersion insofar as the additional language used in CLIL is a foreign language, English in most cases, and not an L2 spoken locally (Dalton-Puffer *et al.* 2010b:1). However, this is in contradiction with the usage given in the Eurydice report (2006: 8), which notes that the '*acronym CLIL is used as a generic term to describe all types of provision in which a second language (a foreign, regional or minority language and/or another official state language) is used to teach certain subjects in the curriculum other than language lessons themselves*'. Furthermore, the use of English can be more

extensive in countries such as the Netherlands or Sweden, where there are CLIL programs, than the use of French in many parts of Canada, where immersion programs exist. In short, it is difficult to argue that CLIL can be distinguished with reference to the nature of the additional language(s) used for instruction. In North America, immersion programs are available in a wide variety of languages, including many that are not spoken in the community where the program is located; the Center for Applied Linguistics identifies programs in the USA that use 25 different languages (see these Web sites for details: <http://www.cal.org/resources/immersion/>; <http://www.cal.org/twi/directory/language.htm>). Nikula *et al.* (2013: 71) also acknowledge that, as in many CLIL programs, many current immersion programs focus on a foreign language.

3.4 The balance between content and language

One of the claims made by CLIL advocates is that it is content-driven. Coyle *et al.* (2010: 1) state '*CLIL is content-driven, and this is where it both extends the experience of learning a language, and where it becomes different to existing language-teaching approaches*'. This is obviously innovative if we consider CLIL to be a foreign language teaching approach because academic content has not traditionally been taught through a foreign language in European contexts. Marsh (2008) explains that it is through content teaching that CLIL can develop higher-order language skills and that this is characteristic of CLIL in comparison with other types of language-learning approaches, which are also content-oriented. Marsh goes on to explain that the innovative aspect of CLIL is that instructional content in CLIL teaching is drawn from academic subjects or disciplines. It could be understood that this is the reason why CLIL develops higher-order skills. However, it is not clear how this can be used to distinguish CLIL from other content-based approaches and, in particular, immersion programs in Europe and North America as well as other parts of the world (Kirkpatrick 2011).

In a somewhat extreme attempt to distinguish immersion from CLIL using this distinction, Marsh (2002: 71) quotes Genesee (2004: 548–9) when the latter refers to Met's (1998) continuum: '*Bilingual/immersion education are examples of content-driven approaches*'. Surprisingly, and contrary to Genesee's description, Marsh (2002: 71) uses this quote to argue that immersion is language-driven and, therefore, different from CLIL/EMILE: '*This quotation is particularly revealing because it shows the tendency towards language that much research espouses, particularly that from Northern America where many applications of "teaching through a second/foreign language" differ considerably from the European experience of CLIL/EMILE*³'. Somewhat later, Marsh (2002: 72) goes on to emphasize this putative difference by saying that in CLIL/EMILE '*the non-language content is considerably more important than the language*'. In a later publication, Marsh (2008: 235) insists that CLIL's focus on content in comparison with immersion is the main difference between the two approaches '*What*

happened, over time, was that forms of CLIL focused more on the content, rather than on the language. This would be the single most distinctive difference between such forms of CLIL and immersion'. However, this argument does not hold up because both Met (1998) and Genesee (2004) consider immersion as 'content-driven' rather than 'language-driven'. In a related vein, to highlight the differences between CLIL and immersion, Coyle *et al.* (2010: 133–4) claim that research in immersion is focused mainly on language. However, this is to overlook the extensive immersion research that has focused on academic achievement (Genesee 1987, 2004). Even were one to accept that there is a greater focus on language than on academic achievement in Canadian immersion research, the same can be said of research on CLIL where research on content is extremely limited. Moreover, that research focuses more on language than on academic achievement in the Canadian context says nothing about the focus of instruction in the classroom. The focus on language in research may reflect the historical fact that immersion grew out of concerns about the quality of L2 learning that resulted from traditional methods of L2 teaching and, thus, the need to establish that immersion was a more successful alternative. The focus on language may also reflect the finding that although research has consistently shown that immersion students score at par on academic achievement tests, they show mixed results when it comes to language outcomes. In short, claims that CLIL and immersion differ with respect to their relative focus in research and during instruction on content versus language are not well founded and, in fact, run counter to claims of most Canadian immersion researchers who have pointed out that the focus on content in immersion has resulted in language instruction being incidental (Genesee 1991; Swain 1996; Lyster 2007).

The language-content distinction has been invoked further as a distinguishing feature of CLIL and immersion insofar as advocates of CLIL argue that there is more systematic planned integration of language and content in CLIL than in immersion (Coyle 2008; Coyle *et al.* 2010: 6). On the one hand, researchers and educators working in immersion programs themselves have drawn attention to the need for more systematic, explicit, and coherent integration of language and content instruction (Swain 1996; Lyster 2007; Genesee and Lindholm-Leary 2013). Lyster (2007: 137), in particular, has written extensively about the merits of instruction in immersion programs that systematically counterbalances language and content instruction. On the other hand, evidence that there is a more balanced pedagogic integration of content and language in CLIL is scant. In fact, as pointed out by Dalton-Puffer *et al.* (2009) and Evnitskaya and Morton (2011), the majority of CLIL teachers are subject specialists without formal qualifications in foreign language and/or general language pedagogy and, moreover, that CLIL classrooms are just like classrooms in which subjects are taught in the first language. Moreover, there is often little collaboration between teachers who teach the L2 or foreign language per se and those teachers who are teaching content through those languages. However, there is wide variation in this regard.

3.5 Other pedagogical issues

Some CLIL experts assert that there are other important pedagogical differences between CLIL and immersion. For example Ball and Lindsay (2010) explain that CLIL teachers devise their own instructional methods, design their own materials, and highlight the role of language, whereas immersion teachers always use materials developed for native speakers. Although native language materials are used in some immersion classrooms for some content teaching, largely in the higher grades when students' L2 skills are relatively advanced, there are just as many cases when immersion teachers devise their own materials, adapt native language materials to be suitable for L2 learners, or use locally devised immersion-specific materials; this is especially true in the early grades of immersion and when complex academic subjects such as physics or chemistry are taught through the L2. It seems most likely that there is enormous variation in both the pedagogical materials and pedagogical methods used by teachers in both CLIL and immersion classrooms.

That the development and use of instructional materials in CLIL and immersion classrooms may not be as distinct as implied by some CLIL advocates comes from cases where CLIL educators in Europe have acknowledged the important role played by immersion in the development of CLIL methodology. For example, Ruiz de Zarobe and Lasagabaster (2010: xi–xii) refer to the transfer of methodology from immersion to CLIL '*In those communities where immersion programs in the minority language have had a long tradition, such as the Basque Country or Catalonia, CLIL teachers have been able to transfer the methodological procedures gathered in sound immersion programs, stepping from regional to foreign languages*'.

In a totally different vein, it has been argued that CLIL differs from immersion in that immersion begins at an earlier age than CLIL (Lasagabaster and Sierra 2010). Dalton-Puffer *et al.* (2010b: 1) point out that CLIL is usually implemented after learners have acquired literacy skills in their first language. However, there are middle and late as well as early immersion programs and there are early CLIL programs (Llinares *et al.* 2012:2). In fact, Coyle *et al.* (2010) give examples of CLIL models for pre-school, primary, secondary, and higher education. In any case, differences in age of introduction of CLIL versus immersion hardly seem sufficient to argue that the two approaches are pedagogically distinct, except in an incidental fashion linked to learner age.

In contrast to the perspectives that CLIL and immersion are different in irreconcilable ways, some consider CLIL to be the same as CBI and, thus, immersion, which is clearly a form of CBI (Järvinen 2007: 255; Ruiz de Zarobe 2008: 61). For example, Ruiz de Zarobe (2008: 61 footnote) point out '*Content and Language Integrated Learning (CLIL) and Content-based instruction (CBI) can be considered synonymous. The former is used more frequently in Europe while the latter has gained more popularity in the United States and Canada*'. However, as we have already seen, immersion is considered a type of CBI, so it can also be seen as a type of CLIL. Indeed, for some experts, there is no

distinction between CLIL and immersion. For example, Várkuti (2010: 68) considers that schools using the CLIL approach have '*an adapted version of a kind of partial immersion program*'. Maillat (2010: 45) goes even further and considers CLIL to be a specific form of immersion '*...any kind of immersion education (of which CLIL is regarded as a specific form)*'. For others, CLIL is the general construct under which a variety of alternative forms of integrated language and content instruction can be placed, including immersion (Baetens Beardsmore 2002; Coyle 2007a; Dalton-Puffer 2007; Sylvén 2007). Van de Craen *et al.* (2007: 186) encourage the use of CLIL in this generic sense when they write '*CLIL has earned its stripes in various educational contexts, in Canada it helped Canadians to learn their second language; in Wales, CLIL played an important role in reviving the Welsh language*'. Reference to immersion as a type of CLIL can also be found in the article by Coyle *et al.* (2010: 9), where French immersion in Canada and Basque trilingual programs in Spain is presented as an example of CLIL with languages other than English. That CLIL may not be a totally new, unique form of education is discussed also by Mehisto *et al.* (2008: 9), who even uses the term CLIL to refer to education in ancient Akkadian communities, some 5,000 years ago, when Sumerian was used as a medium of instruction to teach academic subjects.

In summary, our comparison of perspectives on CLIL versus immersion indicates that there is not a single position regarding the relationship between CLIL and immersion among CLIL advocates and, moreover, distinctions that have been used by advocates to argue that CLIL is unique do not, in fact, hold up when analyzed carefully. Before leaving this discussion, it is important to recognize that in the European context, CLIL has attracted scholars and practitioners in the field of English as a foreign language (EFL) in particular. As a result, in some circles, CLIL has become a label to designate a relatively innovative form of teaching EFL insofar as EFL teaching in Europe has traditionally been limited to the English language class and has not included much academic content. In this regard and in this context only, CLIL might be considered unique. However, this innovation in EFL education in Europe is insufficient to warrant considering CLIL an innovative form of education outside the European context.

4. TAKING STOCK AND MOVING FORWARD

Our examination of the definition and scope of the term CLIL both internally, as used by CLIL advocates in Europe, and externally, as compared with immersion education in and outside Europe, indicates that the core characteristics of CLIL are understood in different ways with respect to: the balance between language and content instruction, the nature of the target languages involved, instructional goals, defining characteristics of student participants, and pedagogical approaches to integrating language and content instruction. Identifying the programmatic, instructional, and student-related properties that are specific and perhaps unique to CLIL is complicated by the diverse

and ill-defined range of learning contexts/opportunities that can be classified as CLIL, as noted by Mehisto *et al.* (2008). Our analysis reveals further that categorical distinctions between CLIL and immersion, another widely used form of integrated content and language instruction, are unsupported (Tedick and Cammarata 2012). In fact, the lack of precision in the internal definition of CLIL makes it difficult, if not impossible, to identify features that are uniquely characteristic of CLIL in contrast with immersion education.

We believe that CLIL is best conceptualized as an umbrella term, like CBI, that incorporates a wide variety of program alternatives and learning opportunities. What alternative renditions of CLIL share is their view that authentic content that extends beyond language be used as a vehicle for L2/foreign language teaching and learning—as well, of course, as being of importance for teaching and learning itself. In our opinion, the extent to which CLIL (and CBI as well) entails a specific well-defined pedagogical approach to content and language integrated teaching, which is evident in all and only CLIL classrooms and programs, is presently not clear and, thus, open to question and discussion. The same could be said of immersion, which itself lacks a clear and coherent pedagogy. In any case, from the perspective of CLIL as an umbrella construct, immersion education can be considered a particular form of CLIL (or CBI). Immersion programs share characteristics with some, but not all, forms of CLIL. More specifically, and like other forms of CLIL, immersion is characterized by the use of an L2 or a foreign language as the language of instruction of prescribed non-linguistic academic content. Immersion, which typically uses an L2/foreign language to teach at least 50% of the school curriculum throughout elementary school, contrasts with other forms of CLIL that, for example, use the target language for teaching only one subject or for teaching modules that are part of specific school subjects. For instance, one lesson in an English as an L2/foreign language course can be CLIL-oriented by focusing on the solar system or on musical instruments. In any case, if we conceptualize CLIL as an umbrella construct and immersion as a form of CLIL, it is difficult and meaningless to make categorical claims about their distinctiveness.

The development of CLIL since its inception two decades ago has strengths and weaknesses. In moving the development of CLIL forward, it is useful to take stock of each. Among CLIL's strengths are the following:

4.1 The spread of CLIL

The growing interest in CLIL and the European-specific perspective it offers has resulted in enthusiasm in and active pursuit of improved methods of foreign language/L2 teaching that is much welcomed at a time when the countries of the European Union are becoming increasingly integrated and, indeed, as nations around the world become globally integrated. There is little question that providing students with enhanced opportunities in school to acquire competence in additional languages will better prepare them for globalization,

whether they are educated in the European community or in communities elsewhere.

4.2 L2/foreign languages in the school curriculum

The development and expansion of CLIL in Europe and around the world has served to increase the prominence of L2/foreign languages in school curricula. CLIL programs provide more hours of contact with the L2/foreign language, and CLIL has made learning an L2/foreign language in school more important throughout Europe and beyond. The integrated approach to language and content teaching espoused by CLIL has the potential to better integrate foreign language/L2 instruction and the teachers responsible for that instruction with mainstream curriculum and teachers.

4.3 Research

The development of CLIL and the enthusiasm it has engendered in foreign language/L2 education circles has stimulated research on language learning, and content integrated language learning in particular, that is advancing our theoretical understanding of this important aspect of human development and our capacity to nurture it in school contexts. However, by insisting on the uniqueness of CLIL as compared with immersion and other CBI programs, the wealth of research evidence on immersion and other variants of CBI is often ignored.

At the same time, there are some weaknesses in CLIL that warrant greater attention.

4.3.1 The bandwagon effect

As noted by Banegas (2011: 183) '*Because CLIL shortcomings are not fully addressed, I believe that a rather evangelical picture is offered, implying to teachers that very few problems will emerge*'. In fact, claims on behalf of the success of CLIL are all too often made without substantial empirical evidence (Coyle 2007a; Wolff 2007b; Bruton 2011). There is a need for more balanced reflection on both the strengths and shortcomings or gaps in our understanding of CLIL and its effectiveness in diverse contexts.

4.3.2 The scarcity of research

Even though the development of CLIL has stimulated research on content and language integrated learning, there are important empirical gaps in our understanding of its effectiveness. Bruton (2011), for example, points out that although the rationale for integrating content with language teaching includes the assumption that this will increase motivation and, thus arguably, use of the target language, it could have the opposite effect. More specifically, student motivation might be reduced because of loss of self-esteem when students are

required to use a language they do not know, and use of the language might actually diminish if the subject matter is novel and/or complex resulting in reduced language acquisition. Without empirical evidence concerning these issues, we simply do not know. Similar concerns have been identified by immersion researchers (Lyster 2007) and by Lin and Man (2009: chapter 7) in reference to the use of English as the language of instruction in Southeast Asia. In a related vein, there is a need to examine more carefully if content is acquired to the same extent when taught through the medium of the L2 in comparison with students' native language (Seikkula-Leino 2007). Fundamental issues about the effectiveness of CLIL remain unexamined. Specifically, much, if not most, research on CLIL has been conducted by ESL/EFL scholars who have compared CLIL and non-CLIL groups of learners and reported higher achievement in English for CLIL learners (Coyle 2007a; Järvinen 2007; Lorenzo *et al.* 2010). Although these results provide general support for CLIL (although see Bruton 2011 for an opposing view), they do not establish a clear causal link between integrated language and content teaching and learner outcomes. CLIL instruction usually entails more contact hours with the target language during the school day, and it could be this extended exposure to the target language that is the crucial variable (Tedick and Cammarata 2012). Perhaps the same number of hours of direct language instruction would be as effective or more effective without a CLIL approach (Bruton 2011).

The need for more research in general has been noted by some CLIL experts (Dalton-Puffer *et al.* 2010a). As Marsh (2008) points out, and as we have noted, however, there are challenges to carrying out research on CLIL because of the diversity of CLIL program formats and the lack of a standardized CLIL blueprint (Van de Craen *et al.* 2007: 197). At a very minimum, it is incumbent on researchers to provide clear and detailed descriptions of the CLIL classrooms/programs that they are examining to ensure that others can understand the limits of generalizability of their results. Advances on the research front could be hampered by definitional shortcomings, our next point.

4.3.3 The lack of conceptual clarity

The initial and ongoing emphasis on defining CLIL in ways that distinguish it from other CBI programs has resulted in a plethora of and at times contradictory set of definitions of CLIL. This is evident from our analyses of what we call internal as well as external definitions. Conceptualizing CLIL as a blanket term (akin to CBI) embraces the multiple formats of CLIL that it currently includes and which many advocates favor. At the same time, there is a critical need to refine the definition of CLIL in ways that systematically and coherently recognize this diversity of formats. This may call for the creation of a taxonomy of prevalent forms of CLIL that can serve to organize discussions about appropriate pedagogy, research findings, and policy. It is unlikely that research findings, policy statements, or pedagogical practices that are applicable to one

variety of CLIL would be appropriate for all renditions of CLIL. Clarity and coherence are necessary to better identify and develop research priorities, pedagogical initiatives, and policy. At present, research efforts as well as educational initiatives are likely to be hampered or limited because there is no widely accepted definition(s) of CLIL and, moreover, no clear understanding of different versions of CLIL. A taxonomy or delineation of alternative formats for CLIL would help to bring order to these matters (Cenoz 2009).

5. THE FUTURE

CLIL has undergone important developments during the past 20 years and has become a well-recognized and useful construct for promoting L2/foreign language teaching. Now that CLIL is well established, it no longer has to struggle for recognition and support. Efforts to insist that it is unique are potentially harmful to its future evolution for several reasons. First, by isolating CLIL, advocates are depriving CLIL educators of valuable information from research on immersion education and related forms of CBI that could inform and improve their efforts in CLIL classrooms and programs in Europe and elsewhere. Secondly, a pre-occupation with the uniqueness of CLIL isolates CLIL theoreticians and researchers from mainstream research on multilingual and L2 education, as, logically, anything that is unique is unrelated to other forms of L2 education. Rather than insisting on the uniqueness of CLIL, efforts might be better spent establishing a taxonomy of different common forms of CLIL/CBI so as to circumscribe the diverse contexts in which CLIL is found. This, in turn, will make it possible to conduct research that is generalizable, meaningful, and useful. This will also make it possible for theory, research, and educational practices in CLIL settings to contribute to general theories, research findings, and pedagogy.

We believe that it is time for CLIL scholars to move from celebration to a critical empirical examination of CLIL in its diverse forms to better identify its strengths and weaknesses in different learning contexts. It is important that there not be just more research, but rather more critical research on CLIL. We also believe that research on CLIL should go beyond a focus on the 'English as a Foreign Language' perspective of much work at present so that other domains of student learning are examined and better understood. The current focus on ESL/EFL results in neglect of students' achievement in non-language academic domains, such as mathematics and science. A focus on ESL/EFL similarly results in a neglect of acquisition of other L2s as well as neglect of acquisition of students' first language (Cenoz and Gorter 2011). In short, a more comprehensive assessment of student outcomes in diverse CLIL contexts is called for.

A critical, and ultimately the most important, direction for future research is to examine efficient ways to effectively integrate language and content instruction. In other words, research is needed that goes beyond examining simply whether teaching content in an L2 or a foreign language promotes L2 competence to examining how teaching content in an L2 works and how it can be

improved. Classroom-based research on how best to integrate language and content is necessary if we are to enhance teacher effectiveness in CLIL settings. Efforts in this direction have been undertaken in CBI programs in North America (Lyster 2007; Short *et al.* 2011). However, there are many aspects of the integration of language and content instruction that require careful theoretical, empirical, and pedagogical attention. CLIL researchers could learn from their findings. At the same time, research in CLIL settings has much to contribute to these endeavors.

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NOTES

- 1 The group of experts were David Marsh from Finland, Hugo Baetens Beardsmore from Belgium, Do Coyle from the UK, María Jesús Frigols from Spain, Gisella Langé from Italy, Anne Maljers from The Netherlands, Peeter Mehisto from Estonia, and Dieter Wolff from Germany.
- 2 'Language showers are primarily intended for students aged between six

and ten years old, who receive between 30 minutes and one hour of exposure per day. This includes the use of games, songs, many visuals, realia, handling of objects and movement' (Mehisto, Marsh and Frigols 2008: 13).

- 3 EMILE is the French acronym for CLIL 'Enseignement d'une Matière par l'Intégration d'une Langue Etrangère'.

REFERENCES

- Alejo, R.** and **A. Piquer.** 2010. 'CLIL teacher training in extremadura: A needs analysis perspective' in D. Lasagabaster and Y. Ruiz de Zarobe (eds): *CLIL in Spain. Implementation, Results and Teacher Training*. Cambridge Scholars Publishing, pp. 219–42.
- Baetens Beardsmore, H.** 2002. 'The significance of CLIL/EMILE' in D. Marsh (ed.): *CLIL/EMILE the European Dimension*. University of Jyväskylä, pp. 24–6.
- Baetens Beardsmore, H.** 2007. 'The working life perspective' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 27–31.
- Ball, P.** and **D. Lindsay.** 2010. 'Teacher training for CLIL in the Basque country: The case of the Ikastolas - in search of parameters' in D. Lasagabaster and Y. Ruiz de Zarobe (eds): *CLIL in Spain. Implementation, Results and Teacher Training*. Cambridge Scholars Publishing, pp. 162–87.
- Banegas, D. L.** 2011. 'A review of CLIL: Content and language integrated learning,' *Language and Education* 25: 182–5.
- Bostwick, M.** 2001. 'English immersion in a Japanese school' in D. Christian and F. Genesee (eds): *Bilingual Education*. TESOL, pp. 125–38.
- Björklund, S.** 1998. 'Immersion in Finland in the 1990s: A state of development and expansion' in J. Cenoz and F. Genesee (eds): *Beyond Bilingualism: Multilingualism and Multilingual Education*. Multilingual Matters, pp. 85–102.

- Bruton, A.** 2011. 'Is CLIL so beneficial, or just selective? Re-evaluating some of the research,' *System* 39: 523–32.
- Caldas, S. J.** and **N. Boudreaux.** 1999. 'Poverty, race, and foreign language immersion: Predictors of math and English language arts performance,' *Learning Languages* 5: 4–15.
- Cenoz, J.** 2009. *Towards Multilingual Education: Basque Educational Research from an International Perspective*. Multilingual Matters.
- Cenoz, J.** and **D. Gorter.** 2011. 'Focus on Multilingualism: A study of trilingual writing,' *The Modern Language Journal* 95: 356–69.
- Coyle, D.** 2002. 'Relevance of CLIL to the European Commission's language learning objectives' in D. Marsh (ed.): *CLIL/EMILE the European Dimension*. University of Jyväskylä, pp. 27–8.
- Coyle, D.** 2007a. 'Towards a connected research agenda for CLIL pedagogies,' *The International Journal of Bilingual Education and Bilingualism* 10: 543–62.
- Coyle, D.** 2007b. 'The CLIL quality change' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 47–58.
- Coyle, D.** 2008. 'CLIL-A pedagogical approach from the European perspective' in N. Van Dusen-Scholl and N.H. Hornberger (eds): *Encyclopedia of Language and Education*. Springer, pp. 97–111.
- Coyle, D.** 2010. 'Foreword' in D. Lasagabaster and Y. Ruiz de Zarobe (eds): *CLIL in Spain. Implementation, Results and Teacher Training*. Cambridge Scholars Publishing, pp. vii–viii.
- Coyle, D., P. Hood,** and **D. Marsh.** 2010. *Content and Language Integrated Learning*. Cambridge University Press.
- Dalton-Puffer, C.** 2007. *Discourse in Content and Language Integrated Learning (CLIL) Classrooms*. John Benjamins.
- Dalton-Puffer, C., J. Hüttner,** **V. Schindelegger,** and **U. Smit.** 2009. 'Technology geeks speak out: what students think about vocational CLIL,' *International CLIL Research Journal* 1: 18–25.
- Dalton-Puffer, C., T. Nikula,** and **U. Smit.** 2010a. 'Language use and language learning in CLIL: current findings and contentious issues' in C. Dalton-Puffer, T. Nikula, and U. Smit (eds): *Language Use and Language Learning in CLIL Classrooms*. John Benjamins, pp. 279–91.
- Dalton-Puffer, C., T. Nikula,** and **U. Smit.** 2010b. 'Charting promises premises and research on content and language integrated learning' in C. Dalton-Puffer, T. Nikula, and U. Smit (eds): *Language Use and Language Learning in CLIL Classrooms*. John Benjamins, pp. 1–19.
- European Commission.** 2012. *First European Survey on Language Competences*, available at http://ec.europa.eu/languages/eslc/docs/en/final-report-escl_en.pdf.
- Eurydice.** 2006. *Content and Language Integrated Learning (CLIL) at School in Europe*. Eurydice.
- Evnitskaya, N.** and **T. Morton.** 2011. 'Knowledge construction, meaning making and interaction in CLIL science classroom communities of practice,' *Language and Education* 25: 109–27.
- Genesee, F.** 1987. *Learning Through Two Languages: Studies of Immersion and Bilingual Education*. Newbury House.
- Genesee, F.** 1991. 'Second language learning in school settings: Lessons from immersion' in A. Reynolds (ed.): *Bilingualism, Multiculturalism, and Second Language Learning: The McGill Conference in Honor of Wallace E. Lambert*. Lawrence Erlbaum, pp. 183–202.
- Genesee, F.** 2004. 'What do we know about bilingual education for majority language students' in T.K. Bhatia and W. Ritchie (eds): *Handbook of Bilingualism and Multiculturalism*. Blackwell, pp. 547–576.
- Genesee, F.** 2007. 'French immersion and at-risk students: A review of research findings,' *Canadian Modern Language Review* 63: 655–688.
- Genesee, F.** and **K. Lindholm-Leary.** 2013. 'Two case studies of content-based language education,' *Journal of Immersion and Content-Based Education* 1: 3–33.
- Halbach, A.** 2010. 'From the classroom to university and back: teacher training for CLIL in Spain at the Universidad de Alcalá' in D. Lasagabaster and Y. Ruiz de Zarobe (eds): *CLIL in Spain: Implementation, Results and Teacher Training*. Cambridge Scholars Publishing, pp. 243–56.
- Hofmannová, M., J. Novotná,** and **R. Pípalová.** 2008. 'Assessment approaches to teaching mathematics in English as a foreign language,' *International CLIL Research Journal* 1: 20–35.

- Holobow, N. E., F. Genesee,** and **W. E. Lambert.** 1991. 'The effectiveness of a foreign language immersion program for children from different ethnic and social class backgrounds: Report 2,' *Applied Psycholinguistics* 12: 179–98.
- Hondris, G. I., S. Vlahavas,** and **Demetriadis.** 2007. 'Negotiation of meaning and digital textbooks in the CLIL classroom' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 319–30.
- Hüttner, J.** and **A. Rieder-Bünemann.** 2010. 'A cross-sectional analysis of oral narratives by children with CLIL and non-CLIL instruction' in C. Dalton-Puffer, T. Nikula, and U. Smit (eds): *Language Use and Language Learning in CLIL Classrooms*. John Benjamins, pp. 61–80.
- Ioannou Georgiou, S.** 2012. 'Reviewing the puzzle of CLIL,' *ELT Journal: English Language Teachers Journal* 66: 495–504.
- Järvinen, H. M.** 2007. 'Language in language and content integrated learning (CLIL)' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 253–60.
- Kirkpatrick, A.** 2011. 'English as a medium of instruction in Asian education (from primary to tertiary): implications for local languages and local scholarship,' *Applied Linguistics Review* 2: 99–120.
- Langé, G.** 2007. 'Postscript to CLIL 2006 and future action' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 351–4.
- Lasagabaster, D.** and **J. M. Sierra.** 2010. 'Immersion and CLIL in English: more differences than similarities,' *ELT Journal* 64: 367–75.
- Lin, A. M. Y.** and **E. Y. F. Man.** 2009. *Bilingual education: Southeast Asian perspectives*. Hong Kong University Press.
- Llinares, A., T. Morton,** and **R. Whittaker.** 2012. *The Roles of Language in CLIL*. Cambridge University Press.
- Lorenzo, F., S. Casal,** and **P. Moore.** 2010. 'The effects of content and language integrated learning in European education: Key findings from the Andalusian bilingual sections evaluation project,' *Applied Linguistics* 31: 418–42.
- Lyster, R.** 2007. *Learning and Teaching Language thought Content*. John Benjamins.
- Maillat, D.** 2010. 'The pragmatics of L2 in CLIL' in C. Dalton-Puffer, T. Nikula, and U. Smit (eds): *Language Use and Language Learning in CLIL Classrooms*. John Benjamins, pp. 39–58.
- Marsh, D.** 2008. 'Language awareness and CLIL,' in J. Cenoz and N. Hornberger (eds): *Encyclopedia of Language and Education*, vol 6. *Knowledge about Language*. Springer, pp. 233–46.
- Marsh, D.** (ed.) 2002. *CLIL/EMILE the European Dimension*. University of Jyväskylä.
- Marsh, D.** and **M. J. Frigols.** 2013. 'Content- and language integrated learning' in C. Chapelle (ed.): *Blackwell Encyclopedia of Applied Linguistics*. Blackwell, pp. 911–20.
- May, S.** 2013. 'Indigenous immersion education: International developments,' *Journal of Immersion and Content-Based Language Education* 1: 34–69.
- Mehisto, P.** 2007. 'What a school needs to consider before launching a CLIL program: the Estonian experience' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 61–77.
- Mehisto, P.** 2008. 'CLIL counterweights: Recognising and decreasing disjuncture in CLIL,' *International CLIL Research Journal* 1: 93–119.
- Mehisto, P.** and **H. Asser.** 2007. 'Stakeholder perspectives: CLIL programme management in Estonia,' *International Journal of Bilingual Education and Bilingualism* 10/5: 683–701.
- Mehisto, P., D. Marsh,** and **M. J. Frigols.** 2008. *Uncovering CLIL*. Macmillan Education.
- Met, M.** 1998. 'Curriculum decision-making in content-based language teaching' in J. Cenoz and F. Genesee (eds): *Beyond Bilingualism: Multilingualism and Multilingual Education*. Multilingual Matters, pp. 35–63.
- Met, M.** 1999. *Content-based Instruction: Defining Terms, Making Decisions*. The National Foreign Language Center.
- Navés, T.** and **M. Victori.** 2010. 'CLIL in catalonia: An overview of reesarch studies' in D. Lasagabaster and Y. Ruiz de Zarobe (eds): *CLIL in Spain. Implementation, Results and Teacher Training*. Cambridge Scholars Publishing, pp. 30–54.
- Nikula, T., C. Dalton-Puffer,** and **A. Llinares.** 2013. 'CLIL classroom discourse: Research from Europe,' *Journal of Immersion and Content-Based Language Education* 1: 70–100.
- Pérez-Cañado, M. L.** 2012. 'CLIL research in Europe: past, present, and Future,' *International*

- Journal of Bilingual Education and Bilingualism* 15: 315–41.
- Pérez-Vidal, C.** and **M. Juan-Garau.** 2010. 'To CLIL or not to CLIL: From bilingualism to multilingualism in Catalan/Spanish communities' in D. Lasagabaster and Y. Ruiz de Zarobe (eds): *CLIL in Spain: Implementation, Results and Teacher Training*. Cambridge Scholars Publishing, pp. 115–38.
- Ruiz De Zarobe, Y.** 2008. 'CLIL and foreign language learning: A longitudinal study in the Basque country,' *International Journal of CLIL Research* 1: 60–73.
- Ruiz de Zarobe, Y.** and **D. Lasagabaster.** 2010. 'The emergence of CLIL in Spain: An educational challenge' in D. Lasagabaster and Y. Ruiz de Zarobe (eds): *CLIL in Spain. Implementation, Results and Teacher Training*. Cambridge Scholars Publishing, pp. ix–xvii.
- Seikkula-Leino, J.** 2007. 'CLIL learning: Achievement level and affective factors,' *Language and Education* 21: 328–41.
- Short, D., J. Echevarria,** and **C. Richards-Tutor.** 2011. 'Research on academic literacy development in sheltered instruction classrooms,' *Language Teaching Research* 15: 363–80.
- Swain, M.** 1996. 'Integrating language and content in immersion classrooms: Research perspectives,' *The Canadian Modern Language Review* 52: 529–48.
- Sylvén, L. K.** 2007. 'Swedish CLIL students' extracurricular contact with English and its relation to classroom activities' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 237–50.
- Tedick, D. J.** and **L. Cammarata.** 2012. 'Content and language integration in K-12 contexts: Student outcomes, teacher practices and stakeholder perspectives,' *Foreign Language Annals* 45/S1: S28–53.
- Ting, Y. L. T.** 2010. 'CLIL appeals to how the brain likes its information: examples from CLIL-(Neuro) Science,' *International CLIL Research Journal* 1: 1–18.
- Van de Craen, P., E. Ceuleers,** and **K. Mondt.** 2007. 'Cognitive development and bilingualism in primary schools: teaching maths in a CLIL environment' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 185–200.
- Várkuti, A.** 2010. 'Linguistic benefits of the CLIL approach: measuring linguistic competences,' *International CLIL Research Journal* 1: 67–79.
- Whittaker, R., A. Llinares,** and **A. McCabe.** 2011. 'Written discourse development in CLIL at secondary school,' *Language Teaching Research* 15: 343–62.
- Wolff, D.** 2002. 'On the importance of CLIL in the context of the debate on plurilingual education in the European Union' in D. Marsh (ed.): *CLIL/EMILE the European dimension*. University of Jyväskylä, pp. 47–8.
- Wolff, D.** 2007a. *CLIL in Europe. Retrieved from CLIL-Content and Language Integrated*, available at www.goethe.de/ges/spa/dos/ifs/ceu/en2751287.htm.
- Wolff, D.** 2007b. 'CLIL: bridging the gap between school and working life' in D. Marsh and D. Wolff (eds): *Diverse Contexts-Converging Goals: CLIL in Europe*. Peter Lang, pp. 15–25.