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CLIL IN PRACTICE: WHAT DOES THE RESEARCH TELL US?



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Although experience of CLIL in German (CLILiG) has now been acquired in many places, there is still relatively little in the way of research available to read on the subject. The situation is somewhat different when it comes to CLIL in which English is the target language: over the past ten years, an extensive foundation of research evidence has been created here, which may also be of interest to those focusing on CLILiG. This article therefore has two objectives:

- to make a number of key insights gained in empirical CLIL research available to readers in a concise form
- to provide orientation for those attempting a critical reading of CLIL research findings.

The primary motivation for using CLIL is the desire to improve language skills by broadening the scope of traditional foreign language teaching, while at the same time achieving the same level of specialist knowledge as would be attained if the lesson were taught in the students' first language. However, in many cases additional expectations are associated with CLIL: that it will deepen the degree of subject learning through cognitive stimulation; offer access to knowledge repositories available in other languages; better prepare students for a professional career in an era of globalization; deepen intercultural understanding and language awareness; provide a more learner-centred and innovative didactic approach; overcome traditional subject boundaries, to name but a few. One important task for CLIL research is therefore to ascertain the extent to which these positive assumptions can be underpinned with concrete observations from the reality of CLIL practice.

The following questions give structure to the subsequent brief overview of the research:

- What do students learn in CLIL programmes?
- How do teachers and learners experience CLIL?
- Foreign language or language for specific purposes – what characterizes CLIL lessons?
- Is there a specific didactic approach for CLIL teaching?

There are many CLIL ‘realities’, which is something one should bear in mind when looking at research results

‘CLIL reality’ can take very different forms, ranging from short project phases to the teaching of virtually all subjects in the CLIL language. This has been extensively documented for the field of CLIL in German (CLILiG) in the volume by Wicke & Haataja (2015). Anyone who pursues or receives CLIL research therefore needs not only to see what all CLIL forms have in common (a dual focus on language and content learning goals in the classroom), but also to bear in mind the different institutional framework conditions of specific CLIL programmes. One practicable means of getting a better grip on the diversity of CLIL realities is to subdivide them into two main types, as illustrated in the following table:

Type A: CLIL in content lessons Hard CLIL	Type B: CLIL in FLT Soft CLIL
Primary goal: subject content	Primary goal: foreign language
Curricular requirements: content subject	Curricular requirements: language subject
Taught by subject teachers	Taught by language teachers
Assessed on basis of: content curriculum	Assessed on basis of: language curriculum

This comparison highlights the fundamental differences between the two CLIL variants. These should be taken into account before research results that are based on one of the variants are seen as being universally applicable to the other. The conclusion therefore has to be that “Just because something is labelled ‘CLIL’ does not necessarily mean that it is the type of CLIL with which I am familiar”.

It is likewise important to realize that the language in which CLIL is actually taught will have a defining impact on the prior knowledge, motivation and viewpoints of those involved, and thus ultimately also on the outcome. It will not surprise anyone to hear that most of the time when ‘CLIL’ is mentioned, it is actually ‘CLIL with English as the teaching and target language’ that is meant. However, the predominant status of the global lingua franca, as used in numerous domains from pop culture, business, technology and science to international politics, means that not all of the claims that are made about English can automatically and unquestioningly be applied to German as a CLIL language. It cannot be ruled out for

instance that some 'CLIL successes' are attributable rather to the actual or indeed imagined benefits of a good command of English than to the CLIL approach per se.

WHAT DO STUDENTS LEARN IN CLIL PROGRAMMES?

From the outset, one primary objective of all interested groups was naturally to discover which learning goals CLIL students achieve. In this context, the greatest attention so far has been paid to language proficiency in the CLIL language. The language proficiency level of CLIL students is constantly compared with that of their counterparts in the normal system and not (as is usually the case in immersion research) with native speakers. Students within the normal system only work with the target language in conventional foreign language lessons, whereas CLIL students additionally attend classes in which other subjects are taught in the foreign language. It therefore comes as little surprise to learn that CLIL students are always several test scores ahead of their peers, and indeed often (though not always!) in all the assessed dimensions of language competence. The most pronounced positive effect can be found in the vocabulary of CLIL students, however.

Among others, Coyle (2008: 6) argues that this head start is due not only to the more intensive time spent in contact with the target language, but also to a qualitative difference in terms of the spectrum of usage situations that CLIL students have to cope with in the content lessons. (More on this in the section "Lessons").

So far, however, one of the weaknesses of many effectiveness studies has been the fact that they fail to assess the language proficiency level of the CLIL and control groups before they embark on a CLIL programme. Only very recently have studies appeared that do so, and they show that CLIL students already achieve significantly better results in the initial aptitude tests, and also exhibit generally higher levels of language learning motivation and linguistic talent (e.g. Rumlich, 2016). What is fairly unexpected, however, is the fact that they do not appear to build on this lead while attending a CLIL programme. One possible explanation becomes apparent if one looks at the tests used in all CLIL language proficiency studies so far: these are conventional and in many cases standardized language tests that assess the everyday communicative skills of the test subjects in the target language. However, CLIL students primarily concentrate on developing technical language skills in the target language that are relevant to the subject in question. It is important for tests and studies to be developed that adequately assess academic language skills.

The obvious head start that CLIL students have reflects a fact that does not form part of the CLIL concept but is nonetheless a reality in education systems, namely that CLIL is de facto selective in the sense that CLIL programmes attract students with a greater interest in learning and a talent for languages.. This effect is without doubt partly responsible for those research results that show that CLIL students reach their learning targets in the content lessons just as well as their peers do (in much the same way that Tedick & Wesely 2015 show for immersion programmes in North America). It remains to be seen what will happen when CLIL is no longer a

voluntary choice for students/parents but an integral part of the normal school curriculum, as has recently become the case in Italy and in the technical schools in Austria. CLIL is also used in the vocational domain in Sweden and the Netherlands.

HOW DO LEARNERS EXPERIENCE CLIL?

In the context of CLIL, it is assumed in many cases that extensive contact with the target language will trigger the learning process, meaning that it is not necessary to explicitly focus on linguistic phenomena. Is this view shared by those who engage directly with CLIL? A study in Austria of budding engineers and their teachers at upper secondary level produced an interesting result (Hüttner, Smit & Dalton-Puffer 2013): on the one hand, both groups were adamant that language learning is a question of 'learning by doing', in other words that it happens implicitly. The students, on the other hand, expressed at the same time a generally more complex view of language learning: they attached equal weight to explicit learning strategies and to the implied 'acquisition' process. Interestingly, this attitude of the students is actually much closer to the opinions on the subject currently held by experts than to those expressed by the (content) teachers.

A study from Hong Kong showed clearly that the professional identity of the teacher has a considerable bearing on the design of the language and content components of the CLIL lesson: when language teachers teach CLIL, there is evidence of a clear tendency to trivialize the subject content, whereas teachers with qualifications in the subject tend to react with little sensitivity to the linguistic needs of the learners (Kong 2009). In this context it is informative to hear teachers with dual qualifications – as is the norm in the German-speaking world – report that they follow different approaches in each of their subjects (Dalton-Puffer 2007).

As far as the students themselves are concerned, there are striking differences between the attitudes of those new to CLIL and those who already have several years of CLIL experience: those new to CLIL feel under considerable pressure and by their own account tend to take a less active part in the lesson than in classes taught in their first language. On the other hand, they have very high expectations with regard to the positive effects of this approach. Experienced CLIL students take a more sober and doubtless more realistic view of these effects; however, they describe themselves as being relaxed about using the target language spontaneously. Coupled with the satisfaction derived from having overcome a difficult challenge, this results in a positive emotional balance for CLIL students (Seikkula-Leino 2007).

LANGUAGE FOREIGN LANGUAGE OR LANGUAGE FOR SPECIFIC PURPOSES– WHAT CHARACTERIZES CLIL LESSONS?

It is often argued in favor of CLIL that the subject content gives rise to a more meaningful context in which to use the target language – a context that is supposed to be lacking from conventional foreign language lessons but is particularly beneficial when it comes to attaining language proficiency (e.g. Coyle, Hood, Marsh

2010). This not only paints a one-sided picture of modern foreign language lessons but also ignores the fundamental similarities between the two learning contexts – after all, both are school-based language events with institutionally defined objectives, role allocations, expectations and communication conditions. Learners are entirely familiar with this context and know, unlike in other contexts in which the target language is used, exactly ‘how school works’. In my opinion, the importance of this in terms of students acquiring emotional confidence about using the target language (see above) should not be underestimated; however, it also means that CLIL will not automatically be able to prepare learners for all situational requirements of target language use.

In addition, the typical features of discussions in the classroom support the development of receptive abilities and the ability to guess at the meaning of words in the target language: questioning techniques used by the teacher, repetitions, paraphrasing and feedback, and indeed the multimodal nature of classroom teaching, all play their part in this. In the here and now of a classroom discussion, participants accompany their verbal contributions with gestures and body language; non-linguistic forms of presenting lesson content are likewise used in many cases (scaffolding – see article by Andreas Bonnet).

Another feature of classroom discussions in CLIL lessons is the availability of an alternative linguistic code that all participants are extremely familiar with because it represents the system-wide language of instruction. In CLILiG lessons in Georgia for example, the Georgian language would be another way of supporting the students’ understanding of the lesson content (scaffolding – see article by Andreas Bonnet on this site). As far as the degree to which the first language is used in CLIL lessons is concerned, studies have found there to be considerable variations, which appear to be influenced not only by the language proficiency level of the teachers and learners, but also by group-specific “rules”. There is a particularly pronounced tendency to switch to the first language when discussing lesson procedures (regulatory function), and when expressing humor or talking about personal relationships (interpersonal function).

The phases in which attention is focused on the language itself are brief and tend to occur when new technical terms are introduced, as an example from a CLIL history lesson in Finland illustrates. The teacher explains the word ‘apprentice’ as follows: “apprentices – they are the ones who are being trained”, and then draws the students’ attention to the correct pronunciation of the word. There is also documentation of isolated cases where students point out to teachers that they have mispronounced a technical term. Other issues regarding correct usage are routinely ignored, however, so long as it seems clear that everyone knows what is being talked about. It is possible that this tendency to play down the importance of correct language usage is particularly pronounced when it comes to English as the target language, as its global use as a lingua franca has led to a broad range of accepted variance. It would be interesting to investigate whether this also applies to German as a CLIL language.

DOES CLIL HAVE ITS OWN DIDACTIC APPROACH?

Numerous optimistic statements and forecasts about the educational and didactic innovation potential of CLIL can be found in the conceptional and introductory CLIL literature (e.g. Mehisto, Marsh Frigols 2008, Coyle, Hood, Marsh 2010). They rarely stand up to empirical review, however. Badertscher und Bieri (2009) concluded for example that Swiss CLIL lessons (with German and French as the CLIL language) did not differ at all in terms of their lesson design from lessons conducted in the students' first language. Viewed soberly, such findings are not all that surprising, as the lessons are given by the same teachers in the same institution, no matter whether they are CLIL lessons or classes taught in the first language. Nonetheless, it is the lesson design that largely determines the range of oral and written, receptive and productive usage situations with which students must engage. For example, a comparison of the learner language during the course of various types of work in social science subjects showed that role plays provide far more opportunities for using perspectivizing or evaluating language tools than group work, presentations or whole-class discussions (in descending order; see Llinares & Dalton-Puffer 2015). Interestingly, role plays were also found to be useful from the perspective of subject content teaching. In a Swiss study of CLIL biology (Maillat 2010), it was found that students regarded the CLIL language as a kind of 'mask' that allowed them to engage more intensively with sensitive and controversial issues because they had no fear of losing face.

In the light of the above, the great challenge for CLIL development research is to devise an integrated didactic approach that provides both language and subject experts with points of access with which they can identify. Specialists in second language didactics in North America have already done extensive pioneering work here with respect to academic language reading and writing (the 2011 article by Schleppegrell & O'Hallaron provides a concise overview of this work). Gratifyingly, educational science experts in the German-speaking world have now also realized that they need to focus attention on the numerous learners of migrant origin, who likewise learn in a second language. The CLILiG community can no doubt profit from the recent work done in the areas of German as an academic language, language-sensitive teaching and bilingual didactics (e.g. Bachmann & Feilke 2014, Leisen 2017, Mercator Institut).

CONCLUSION

CLIL teachers are often pioneers who have to work without the certainties of any established practice in their field. They end up crossing boundaries in their professional work, and often raise questions about their practice. This article has attempted to shed some brief light on how research work is and has been helping to answer these questions in different CLIL contexts.

The wide range of different forms of CLIL makes it impossible to give any concise summary here of the current state of research into CLIL.

Some clear trends are evident, however:

- Learners find CLIL opportunities attractive and generally acquire satisfactory proficiency in the subject, yet the positive image enjoyed by CLIL cannot be attributed unequivocally to the teaching on offer.
- There is also evidence that vocabulary learning appears to work well in CLIL lessons, and that role plays seem to be more conducive to the use of a wider range of linguistic means or other activity types.
- There is no evidence that any particular subject is not suitable for the CLIL approach. Subjects with a greater focus on activity such as PE or art are suitable for introducing students with lower levels of language proficiency to CLIL. And even mathematics, which is sometimes viewed as unsuitable, has the advantage that the language used to accompany calculations is fairly repetitive. By contrast, history is a subject that places higher demands on the students' wealth of linguistic expression.

Thus the challenge for researchers is to develop curricular requirements that are relevant to the subject language and reflect the language level of the learners, while at the same time minimizing the preparation involved in meeting these requirements in normal lessons.

For those wishing to obtain more detailed information, a number of references are made below to current research literature and German-language handbooks (handbooks in English can be found in the article by G. Bach on this website)

SOME RECOMMENDED READING

German books

Doff, S. (Hrsg.) (2010). *Bilingualer Sachfachunterricht in der Sekundarstufe*. Tübingen: Narr.

This volume in the Narr Studienbücher series contains articles by many renowned German-speaking CLIL experts and provides a broad-ranging overview from the perspective of different subjects, as well as with respect to cross-disciplinary strategies and questions.

Hallet, W. & Königs, F.G. (Hrsg.) (2013). *Handbuch Bilingualer Unterricht*. Seelze: Klett-Kallmeyer.

A useful source of information containing 51 short articles about a correspondingly wide range of CLIL-related topics, including one article about CLILiG.

Research overview

Dalton-Puffer, C. (2011). Content and language integrated learning – from practice to principles? *Annual Review of Applied Linguistics*, 31, 182–204.

Nikula, T./Llinares, A./Dalton-Puffer, C. (2013). European research on CLIL classroom discourse. *International Journal of Immersion and Content Based Language Education* 1, 70-100.

Pérez-Cañado, M. L. (2015). CLIL research in Europe: Past, present, and future, *International Journal of Bilingual Education and Bilingualism* 15, 315-341.

Online journal (open access)

Latin American Journal of Content and Language Integrated Learning (LACLIL)
<http://laclil.unisabana.edu.co>

Individual studies

The articles in the following themed editions of international journals give an insight into CLIL realities in various international contexts and from a variety of research perspectives.

Language, Culture and Curriculum (2015), 28(1) Hrsg. J. Cenoz and Y. Ruiz de Zarobe
Language Learning Journal (2014), 42(3) Hrsg. C. Dalton-Puffer und T. Nikula
Language Learning Journal (2015), 43(3) Hrsg. T. Nikula und C. Dalton-Puffer
International Journal of Bilingual Education and Bilingualism (2007), 10(5)
Hrsg. D. Coyle und H. Baetens Beardsmore
International Journal of Bilingual Education and Bilingualism (2013), 16(3);
Hrsg. Y. Ruiz de Zarobe.
International Journal of Bilingual Education and Bilingualism (2 Ausgaben 2018)
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- Coyle, D. 2008. *Content and language integrated learning: motivating learners and teachers*. <http://blocs.xtec.cat/clilpractiques1/files/2008/11/slrcoyle.pdf> (accessed 3 January 2017).
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- Hüttner, J./Dalton-Puffer, C./Smit, U. 2013. *The power of beliefs: Lay theories and their influence on the implementation of CLIL programmes*. *International Journal of Bilingualism and Bilingual Education* 16, 267-284.
- Kong, S. 2009. *Content-based instruction: What can we learn from content-trained teachers' and language-trained teachers' pedagogies?* *Canadian Modern Language Review* 66, 233-267.
- Leisen, J. 2017. *Handbuch Fortbildung: Sprachförderung im Fach - Sprachsensibler Fachunterricht in der Praxis*. Stuttgart: Klett.
- Linares, A./Dalton-Puffer, C. 2015. *The role of different tasks in CLIL students' use of evaluative language*. *System* 54, 69-79.

- Maillat, D. 2010. The pragmatics of L2 in CLIL. In Dalton-Puffer, C./Nikula, T./Smit, U. (Eds.) Language use and language learning in CLIL classrooms. Amsterdam: Benjamins, 39-58.
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Rumlich, D. 2016. Evaluating bilingual education in Germany: CLIL Students' General English Proficiency, EFL Self-Concept and Interest. Frankfurt etc.: Peter Lang.
- Schleppegrell, M./O'Hallaron, C. 2011. Teaching academic language in L2 secondary settings. Annual Review of Applied Linguistics 31, 3-18.
- Seikkula-Leino, J. 2007. CLIL learning: Achievement levels and affective factors. Language and Education 21(4), 328-341.
- Tedick, D./Wesely, P. 2015. A review of research on content-based foreign/second language education in US K-12 contexts. Language, Culture and Curriculum 28, 25-40.
- Wicke, R./Haataja, K. (Hrsg.) 2015. Sprache und Fach: Integriertes Lernen in der Zielsprache Deutsch. München: Hueber.

BRIEF BIOGRAPHIE



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