Adjusting practices to aims in integrated language learning and disciplinary learning

Keywords

tertiary education; medium of instruction; content and language integrated learning; English medium instruction; exchange students; learning outcomes

Abstract

It is important to define the purpose of not teaching a university course in the local L1. We must distinguish between teaching content in a second language because L1 is impractical for some reason, and teaching content and a second language simultaneously with L2 improvement as a course aim. The former demands lingua-franca practices aimed at maximally efficient communication (rather than maximally correct or elaborated language). The latter demands practices more allied to language teaching aimed at developing the particular skills that have been identified as expected learning outcomes. Appropriate practices are suggested.

Paramètres de l'enseignement d'une matière par l'intégration d'une langue étrangère

Mots-clés

enseignement supérieur, langue d'enseignement, anglais comme langue d'enseignement, enseignement de matières par l'intégration d'une langue étrangère, internationalisation, étudiant en mobilité, objectif d'apprentissage

Résumé

Il est important de définir les raisons pour lesquelles on décide de ne pas enseigner un cours à l'université dans la langue maternelle des étudiants. Il faut distinguer entre l'enseignement de la discipline dans une langue étrangère parce qu'il serait difficile de le faire dans la langue maternelle et un enseignement simultané de la discipline et de la langue étrangère dans le but d'améliorer cette dernière. La première option impose d'utiliser une lingua franca (plutôt qu'une langue aussi correcte que possible, voire recherchée) pour favoriser la communication. La seconde option implique des pratiques plus étroitement associées à l'enseignement de la langue de manière à développer les compétences spécifiques identifiées comme les objectifs de l'apprentissage. Dans cet article, nous suggérons des pratiques appropriées à ces deux options.

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1. Introduction

It is not uncommon for a content teacher at university to get up one morning, switch on the computer, and find an email from the Head of Department saying that his or her course will be taught in English next year, and he or she will be teaching it (Costa & Coleman 2010, Huang 2006, Kuteeva 2011, Sert 2008, Tatzl 2011, Wächter & Maiworm 2008). We may be very skeptical about the value of such a proposal (Frath 2008, Josephson 2004, Phillipson 2003); we might even recommend the teacher in question to refuse; but in practice this may not be possible. Assuming that the content teacher agrees, willingly or unwillingly, what should he or she think about? In other words, what parameters affect the techniques and the outcome of teaching in a language that is not the students' or teacher's first? The purpose of this article is to suggest what should be done.

2. A conceptual framework

A number of studies are relevant for someone attempting English-medium education in a country like France.

The Bologna process of standardizing EU higher education (Bologna Secretariat 2010) has led to increased mobility and thus to one of the major drivers of instruction in non-local languages. It has also included demands for explicit and transparent course aims and evaluation procedures. A key concept here is constructive alignment (Biggs & Tang 2011). Intended course outcomes should specify what learners are supposed to be able to do after the course and course design should be oriented to achieving these outcomes. Before designing a course taught in a language other than the students' L1, therefore, we should decide what outcome we expect from the choice of medium. Those responsible for course development may expect no development of proficiency – the choice of medium is simply required by the situation, and in that case they only need to find the most efficient means of communication. But often they expect development of active or passive L2 proficiency and if these outcomes are expected, the course must be designed to maximize language learning opportunities.

One commonly expressed expected outcome of English-medium instruction (Pecorari *et al* 2011, 2012) is incidental learning of English. That is, by attending to the content, participants will ‘pick up’ the medium. However, although this is how we learn our first language so that incidental learning is a real phenomenon, it has become clear that for adults increased attention paid to the medium, up to a certain point, yields more efficient learning. For successful incidental learning repeated exposures are required, and transfer from passive knowledge (recognition) to active use is uncertain. (Schmidt 1994, Laufer & Hulstijn 2001). The research on incidental learning thus suggests the need for some planning and intervention by the teachers if an expected learning outcome of this sort is to be achieved.

Specifically, one possible aim of a university course in English taught in France would be for learners to approach academic biliteracy (Airey 2009). That is, they should acquire the ability to use disciplinary discourse in two languages – to be able to produce and understand the language of the discipline in English and in French. As we know, a proportion of what is learnt at school and university is the elaborated language of the academic register of L1. The language of the university in general and the discourse of the discipline in particular are notoriously “[...] never the mother tongue of anyone, not even the children of the educated class”¹ (Bourdieu & Passeron 1965:18; my translation). Consequently a university education aims partly to teach the L1 academic register. An aim of a bilingual course would be to continue the development of this register in L1, and to provide access to its forms in L2. Given that the difficult cognitive work of acquisition in L1 has mainly been done, ‘conversion’ to L2 is not an insurmountable task (Cummins 1986). Nevertheless the course designer must be aware that studying in a second language may lead to shallow or simplistic L2 academic discourse, and inadequate L1 academic discourse in the relevant field. Planning must allow for elaboration in both languages – which means productive use.

Recent studies of bilingual education have made use of the concept or technique of translanguaging (e.g. Creese & Blackledge 2010). The argument is that in bilingual or multilingual classrooms two or more languages are always present, and it is commonly the case that learners need to acquire academic literacy in at least two languages. Therefore, it is argued, it makes sense for the classroom to make use of both languages and for tasks to be encouraged which, for example, involve active use of one medium for processing material acquired through the other. Thus the course taught in English in France need not be a French-free zone. In fact, given the right constellation of proficiencies (see below), use of L1 could be a valuable resource for focusing attention on differences in terminology and discourse between the languages and thus improving incidental learning.

¹ “[...] *jamais une langue maternelle pour personne, pas même pour les enfants des classes cultivées*”

A common expected learning outcome may be that students should be able to communicate internationally in English in their field of study. Alternatively there may be no language-acquisition target. In either case, the notion of English as a **Lingua Franca** (ELF) may be relevant. That is the notion that English may be needed as an international medium among speakers of other languages, rather than the national medium of a particular group of countries. Lingua-franca practices, those that occur when a group of people are forced to communicate in a language which is not the native language of the majority have recently been described, and advocated as valuable, by an influential group of researchers (Mauranen 2012, Seidlhofer 2001, Jenkins 2000). Their message is that what is important is that everyone understands accurately, not that grammar is correct or the word choice native-like. ELF advocates regard practices like the following as helpful to maximize the efficiency of communication in ELF situations, and research (e.g. Björkman 2013, 2011, Hyninen 2011) tends to show that speakers make use of them:

- being sensitive to other accents and varieties (what does an Indian mean by *the in-charge is not here?*);
- correspondingly, trying to avoid expressions not widely used in the English-speaking world (British *fortnight*, Swedish *it would be nice with a cup of coffee*);
- using any unambiguous pronunciation, (so that an equal-stress version of *photography* would be as good as one with strongly-reduced unstressed vowels);
- adopting strategies for comprehensibility, (*these people you saw, what were they wearing?*).

3. Dimensions of teaching in a second language

In planning a course of this type, attention has to be paid to (a) its social context, including the maturity and stage of education of the learners, all participants' proficiency in the target language (here, English) and the community language (here, French), and the mutual relatedness of these two languages and (b) its learning objectives or expected learning outcomes.

3.1. The social context: student, teacher and language characteristics

The social context varies on several dimensions. First might be the learners' age and maturity, which affect possible methods and perhaps the effectiveness of exposure as a source of incidental learning. Related to this is their knowledge of disciplinary content and L1 discourse. A master's level course can take a firm basis in L1 terminology and discourse, while a first-year undergraduate course would have to pay much more attention to development in this area. Indeed if a first-year course has to be taught in L2, it may well be necessary to accompany it with some kind of L1 support.

A second dimension is the L2 proficiency of teachers and learners, both of whom will vary in terms of language knowledge and fluency, and of willingness to use

the language. Even highly proficient learners are likely to be less active class participants in L2 than in L1, and where learners lack confidence and productive proficiency is an expected outcome, courses will have to be designed carefully to maximize 'safe' practice opportunities. Similarly the proficiency and confidence of teachers must be taken into account in determining realistic goals and task-types. Another aspect is the extent of learners' naturalistic exposure to L2 in speech or writing. In some North European environments learners will have spent many years exposed to English in films, leisure reading, television, and on-line activities in the second language, so that their difficulties are mainly with academic discourse. In other environments learners may hardly have heard or read English outside the classroom, and the basic processes of L2 comprehension, perhaps especially listening, may be slow and laborious. In the first case listening skills are a given; in the second they are an expected outcome that needs planning for.

A third dimension would be more purely linguistic: the nature of disciplinary terminology. Learners with Romance mother tongues might find that technical terms in English were often cognate with those in L1, while Chinese learners (to take the opposite extreme) might have a much larger burden. Again courses aiming at academic biliteracy would have to take account of these factors in their treatment of terminology learning.

3.2. Constraints and aims: why is L2 being used in this university teaching?

In Europe in general four situations can be imagined in which L2 English rather than L1, the unmarked language choice, is chosen as the medium of instruction. In three of them, the choice is based on force of circumstance. Quite simply the instructor may not know L1; he or she may be a visiting L2 speaker (an American, for example) or an L3 speaker who uses L2 as lingua franca (a visiting Chinese or Russian, for example). Or (some of) the students do not know L1 and use L2 as a **lingua franca** or as their L1 (exchange students typically).

A third possibility which is very common in smaller language communities is that while all participants know L1 and oral interaction takes place in this language, some course elements, like the textbook, are in L2. In the fourth case, students and instructor know L1 but choose to use L2. In the first three cases language development may or may not be an intended outcome; in the fourth it must be.

Figure 1: The EMI-LSP continuum

A course whose aims (explicit and implicit) are entirely related to acquisition of content could be called ‘second-language medium instruction’. Here the second language is being used for external practical reasons, or possibly because (as has been claimed for Information Technology) because it is the default language for the discipline. In such cases the instructor and students need only to consider how ELF attitudes and practices can be adopted to maximize the efficiency of communication.

At the opposite extreme, courses whose aims are entirely linguistic are LSP courses of a limited type, which focus on the language forms and rhetoric needed by the learners. Somewhere in between the two extremes are courses which have implicit or explicit language-improvement aims alongside content-mastery aims, and consequently practices (Coyle, Hood & Marsh 2010). These courses are called CLIL (Content and language Integrated Learning) or *EMILE* (Marsh & Nikula 1999).

CLIL is a teaching approach in which language and disciplinary content are equally targets of the learning process. Learning outcomes are specified for both targets, both types of learning product are tested, and teaching is adapted to the demands of both learning processes. Language support may be provided by language teachers or tasks may be jointly defined and assessed by language specialists and content specialists. Many courses called CLIL/*EMILE* lack well-defined language-learning aims, and many do not have practices or tasks explicitly directed to language improvement, but the argument here is that the absence of these features limit the courses’ effectiveness and makes them merely English-Medium Instruction (EMI) courses whose outcomes cannot be fairly assessed.

Figure 2. Links between social context and teaching practices

Figure 2 summarizes the ideas discussed above and proposes some of the decisions that have to be made. In the rest of the paper I first exemplify the types of result that might be found for content learning and language learning in courses of this type, and then consider some methodological implications. The research reported is from two different social contexts: Spain, where English is usually little heard or read by young people outside school, and Germanic North West Europe, where most young people have had extensive exposure to several varieties of spoken English through mass media and the internet.

4. Examples of research findings on CLIL

Not surprisingly, uncontextualized tests of proficiency and learning show that, other things being equal, L2 is a less effective medium than L1. In an empirical investigation, British students read English and understood spoken English better than their Swedish peers (Shaw & McMillion 2008, 2011), though a quarter of the Swedes read and understood within the native-speaker range. In the Netherlands Klaassen (2001) taught an experimental group of engineers in Dutch, in English (testing in English) and in English (testing in Dutch). Those taught in Dutch scored significantly better than either English-medium group. There was no significant difference due to testing language. In the absence of compelling circumstances or language-learning aims, L1 is the obvious choice, even in Germanic Northern Europe.

Contextualized investigations (allowing for situational adaptation of language practices) show more complex patterns. Airey (2008) investigated students taught physics either in English or in Swedish (in each case with textbooks in English, as is usual in Scandinavia). When asked, the students said ‘Language makes no difference’, an extremely common trope in the local discourse on English. In fact the students asked fewer questions during the class and their notes were of worse quality after the lecture in English than after its Swedish equivalent. However, because they prepared better and read more for the lecture in English, learning results were similar. (It seems to be a common finding that L2 teaching leads to compensatory harder work.) Furthermore, although first-year students could not retell in English what they had learnt in Swedish, second-years could, and all informants could retell in Swedish what they had learnt in English. Airey (2008) argues that in the Swedish context scientific biliteracy should be an expected learning outcome, so that the course should be adapted to achieve it.

Similarly, Klaassen (2001) looked at Dutch engineering students in the Netherlands studying in English and Dutch. Like Airey, she found no difference in exam results due to the language of instruction, and she remarks that students make sure they pass, whatever their background or other potential obstacles. Again like Airey, she found some evidence of more superficial learning in the first EMI year, not in the second. However like many who have attempted comparative examinations of CLIL and/or EMI, she found that the comparison was difficult to make because students who choose EMI are often better motivated.

Other research in Sweden has looked, in context, at the way English is used in English-medium instruction. Söderlund (2010) showed that in an ostensibly English-medium course set up because some participants were exchange students who did not know Swedish, English was used when non-Swedish speakers were present, that is in all whole-group teaching. Otherwise Swedish predominated in small-group activity, in teacher-student interaction, and in off-task interaction, because Swedes were the majority. Swedish was occasionally used as an unofficial instructional language, and regularly as a study language, for social and interactional functions, and for some stylistic effects. Swedish served to mark and unite the community. Thus in this relatively heavily Anglicized social context, but in a course where language improvement was not even an implicit aim, Swedish was the default language.

Björkman (2013, 2011), by contrast, looked at group work aimed at solving a specific engineering course task, in groups of local and exchange students with several different L1s. Because they came from different education systems, the participants had different types of expertise, and patterns of dominance tended to be based on subject knowledge rather than on language proficiency, in these highly goal-directed groups without native speakers of English. Björkman found that in this EMI context English functions effectively as a *lingua franca*. Formal errors in interactive speech caused few problems (except questions not formally marked by

inversion). Casual conversational topics were abandoned for linguistic reasons, but the group had clearly defined goals to be achieved, and these were not abandoned, because they were important, and because they were clearly defined in writing.

In Germanic Northern Europe courses in English tend in practice to be EMI because there are no explicit language-improvement aims, and no systematic language-improvement practices. In Spain corresponding courses are more likely to be conceived of as CLIL, and therefore there is more systematic information on language improvement. Aguilar and Munoz (2013) gave pre- and post-tests to post-graduate engineering students on a CLIL course at a Spanish university. They found improvement overall in listening but not in grammar. The main advantage of the course could therefore be said to be increased exposure to spoken disciplinary English, entirely in line with social context in which it was carried out. Less proficient students improved more in listening and grammar skills than more proficient peers, and this is a very robust finding from studies of CLIL at all levels (Kjellén Simes 2008).

Vallbona and Khan (2012) report the reactions of Spanish university teachers after a CLIL teaching experience. Their informants said they had over-estimated the amount of content that could be handled. Students' attention span in CLIL classes was much shorter, requiring them to break down their lectures (reflecting the reduced efficiency and slower pace of L2 discourse as shown in Hincks 2010, and Thøgersen & Airey 2011). They noted they needed to set aside time for language support particularly for productive written or oral tasks. This reflects both the general thrust of this article that incidental learning is not enough, and the specific finding of Aguilar and Munoz that receptive skills (listening) improve more than productive skills (grammar). They also found that teachers who were initially concerned about their own proficiency seem no longer to be worried after experience in the **lingua-franca** environment.

5. Adapting teaching to EMI or CLIL

5.1. Language of course components

The above glance at a few examples of the findings of research into CLIL and EMI in practice provides motivation for considering how teaching and objectives might have to be adapted to the use of a new language medium. There is an interaction between the language of course components and the potential objectives. The widespread practice in Scandinavia of using an English-language textbook alongside teaching and testing in L1 makes acquisition of the English-language discourse of the discipline an inexplicit aim for many participants. Correspondingly adoption of an explicit aim of improved productive accuracy in this English language environment would require components, probably more than one, which require free written or spoken production by students, with feedback. Thus a policy decision about the language of course components limits potential objectives and vice-versa.

Common patterns in a variety of social contexts are: (a) textbooks in L2, teaching and testing in L1; (b) lectures and reading in L2, but administration, discussion and testing consistently in L1; (c) consistent L2 use by the instructor, with learners free to choose which language to use actively; (d) all participants encouraged not to use L1 at all. The popularity of the notion of translanguaging and the common goal for undergraduates of biliteracy, mastering the target discourse in both languages, might suggest a further pattern in which undergraduate level courses should be consistently bilingual. This would mean using a specified language for a given task, but varying choice to give balanced exposure.

Once the objectives and the course language components have been established, consideration can be given to teaching practices. The decisions at this level concern: (a) how the language level can or should be adapted; (b) the choice of written and spoken tasks; (c) how and whether focus on form is to be introduced; and (d) the extent to which translanguaging or other bilingual practices can be adopted.

5.2. English-medium instruction

One aim would be English-medium instruction, that is disciplinary learning with an international group of students, some of whom do not know French. Although this will result in incidental language improvement for at least some participants, that is not an intended learning outcome.

Many recommendations for EMI are simply good practice, made more important by the cognitive overload of L2 instruction. Seven general recommendations for effective L2 lecturing are given by Airey 2012:

1. Discuss the fact that there are differences when lectures are in a second language.
2. Create more opportunities for students to ask and answer questions in lectures.
3. Allow time after the lecture for students to ask questions.
4. Ask students to read material before the lecture.
5. Give out lecture notes in advance or follow the book
6. Exercise caution when introducing new material in lectures
7. Give as much multi-representational support as possible.

(Airey 2012: 6)

Some further recommendations might be the following. Lectures should be structured very explicitly. Transitions to new sections or functions should be marked with phrases like *Now, next, I have three points, the reason is, this is an example of, So that was..., now let's move on to...* Oral presentations should refer explicitly to relevant passages in textbooks, etc. – it is more difficult to scan in L2. Power-point or the whiteboard should be used to ensure that the written and spoken forms of technical terms are introduced together. Visual back up for spoken language of all sorts is desirable. It is a useful practice to pause every few minutes for small-group or pair discussion on specific comprehension-check questions. On-line forums provide an opportunity for discussion without the pressure of producing spoken language in a limited time. Reading comprehension could be checked by re-

quiring answers to specified questions on reading, perhaps in an on-line forum. EMI in France is usually a **lingua-franca** situation in which appropriate communication practices should be adopted. Instructors with very high proficiency in English should avoid native-speakerisms (complexity, slang, fast presentation, wide vocabulary, references to Anglo-American culture, and an excessively Anglo lecturing style). Correspondingly, instructors with L1 French should avoid gallicisms (accent, false friends, presuppositions about local knowledge, presuppositions about learning style). If writing or speaking tasks are in L2, language support may have to be provided.

The multilingual environment should be explicitly recognized. For example, students can be asked to supply relevant L1 web sites. Potential cross-linguistic terminology problems can be addressed (*'What do you call this in Chinese?'* 'sodium, which is called natrium in many languages'). Where there are several substantial groups with the same L1, use should be made of their knowledge, allowing them, for example, to negotiate the L1 equivalents of terms. As Söderlund has shown, the local language will also be used, but in a multilingual classroom using English, care may have to be taken, translations provided, etc. for writing and/or speaking tasks if in L2. The course must be designed to ensure that the students are developing disciplinary discourse in some language (that is, there must be some productive tasks which are not knowledge reproduction).

5.3. Content and language integrated learning

In section 5.2 above we discussed courses which aim at disciplinary learning but have for practical reasons to be taught in L2. In other cases the course aim may be more or less explicitly language learning along with disciplinary learning (CLIL). That is, the course may be arranged in English not merely for practical reasons but because there is a demand or perceived need for students to acquire disciplinary discourse in L2 English. In this case not only many of the above suggestions are applicable, but also tasks more reminiscent of language teaching, perhaps specifically EAP work. Thus Ortigosa *et al* (2011) suggest the pre- and post-tasks listed in Table 1.

Table 1: pre and post lecture tasks recommended by Ortigosa *et al* 2011

Pre-tasks:	Post-tasks:
Brainstorming	Multiple choice test
Key vocabulary or Glossary	Sequencing paragraphs
Mental maps	Sentence-making
Gap filling	Summarizing
Matching	Find the wrong bits and rewrite
Watching videos	Finding errors about learned contents
	Writing a report
	Oral production

More generally, CLIL implies the objective of active mastery of disciplinary discourse in L2, that is the transfer of Cummins' cognitive-academic language proficiency (CALP) to a new language. Hence it is essential that students write original work in L2, focusing on deep as well as replicative learning. In fact they should have the opportunity to write several reports in well-defined genres (such as exam answer, report, scientific article, instructional material) using a professional register with appropriate style, tense usage, nominalizations, etc. and format. Similarly there will need to be active student oral use of language. Learners can make presentations to groups or the whole class with credit for form and content, with focus on professional register and format. Problem-solving tasks for credit need to be arranged, with maximal interaction among students in multilingual groups where possible. Alongside these tasks there needs to be focus on form, as in EAP, induced perhaps by attention to key words. These would be so-called 'General Academic' vocabulary, perhaps especially focusing on false friends, that is words with similar forms in English and French but different meaning or usage (*important, qualify*); the technical terms of the discipline, where not transparent (*momentum, moment, torque, force, power*); connectors (*similarly, by contrast, therefore, thus* and false friend *indeed* and *in effect*); and genre/register-specific phraseology and usage (*it has been found that* vs *it was found that*).

6. Conclusion

If a content course has to be taught in L2, it is likely that neither teacher nor learners are using the most efficient code they control. Therefore both have to adopt improved communication practices to ensure successful acquisition of the content. If in addition one of the aims of the course is that learners should acquire skills in L2, the target skills need to be specified and teaching practices and tasks have to be adjusted to ensure successful acquisition of the target language and discourse. Following the same practices and tasks as last year in a new language is inefficient, however simple it seems to the Head of Department.

References

- Aguilar, M. & C. Muñoz. 2013. "The effect of proficiency on CLIL benefits in Engineering students in Spain." *International Journal of Applied Linguistics*. doi: 10.1111/ijal.12006.
- Airey, J. 2009. *Science, language and literacy: Case studies of learning in Swedish university physics*. (Doctoral dissertation). Acta Universitatis Upsaliensis. Uppsala Dissertations from the Faculty of Science and Technology 81, Uppsala.
- Airey, J. 2012 *The Impact of English- Medium Instruction in Higher Education*. Lecture at Universitat Pompeu Fabra, Barcelona 22 November 2012. Available <http://www.upf.edu/lengues/_pdf/Presentacix_J.Airey.pdf>.
- Airey, J. & C. Linder. 2006. "Language and the experience of learning university physics in Sweden." *European Journal of Physics*, 27:553-560.

- Biggs J. & C. Tang. 2011. *Teaching for Quality Learning at University*, Buckingham: Open University Press/McGraw Hill.
- Björkman, B. 2011. "Pragmatic strategies in English as an academic lingua franca: ways of achieving communicative effectiveness?" *Journal of Pragmatics* 43:950-964.
- Björkman, B. 2013. *English as an academic lingua franca*. Berlin: De Gruyter Mouton.
- Bologna Secretariat. Benelux Bologna Secretariat. 2009.
<<http://www.ond.vlaanderen.be/hogeronderwijs/bologna/>>. Retrieved 21 June 2010.
- Bourdieu, P. & J.-C. Passeron. 1965. "Introduction: Langage et rapport au langage dans la situation pédagogique." In Bourdieu, P., J.-C. Passeron & M. de Saint Martin (Eds.). *Rapport pédagogique et communication*. Paris: Mouton.
- Costa, F. & J.A. Coleman. 2010. "Integrating content and language in higher education in Italy: ongoing research." *International CLIL Research Journal*, 1/3:19-29.
- Coyle, D., P. Hood & D. Marsh. 2010. *CLIL Content and Language Integrated Learning*. Cambridge: Cambridge University Press.
- Creese, A. & A. Blackledge. 2010. "Translanguaging in the bilingual classroom: a pedagogy for learning and teaching?" *The Modern Language Journal*, 94:103-115. doi: 10.1111/j.1540-4781.2009.00986.x.
- Cummins, J. 1986. "Linguistic interdependence: a central principle of bilingual education." In Cummins, J. & M. Swain (Eds.). *Bilingualism in education: aspects of theory, research, and practice*. London: Longman, 80-96.
- Frath, P. 2008. "Une alternative au tout anglais en Europe : pourquoi et comment." *Cahiers de l'Institut de Linguistique de Louvain, CILL* 32/1-4 (2006):237-250.
- Hincks, R. 2010. "Speaking rate and information content in English lingua franca oral presentations." *English for Specific Purposes* 29/1:4-18.
- Huang, F. 2006. "Internationalization of curricula in higher education institutions in comparative perspectives: Case studies of China, Japan and the Netherlands." *Higher Education*, 51/4:521-539.
- Hynninen, N. 2011. "The practice of 'mediation' in English as a lingua franca interaction." *Journal of Pragmatics* 43: 965-977.
- Jenkins, J. 2000. *The Phonology of English as an International Language*. Oxford: OUP.
- Josephson, O. 2004. "Engelskan i 200-talets Sverige." In Josephson, O. (Ed). *Engelskan i Sverige. Språkval i utbildning, arbete och kulturliv*. Stockholm: Svenska språknämnden, 7-24.
- Kjellén Simes, M. 2008. *Room for Improvement? A comparative study of Swedish learners' free written English in the foreign language classroom and in immersion education*. Karlstad: Karlstad University Studies.

- Klaassen, R.G. 2001. *The international university curriculum: Challenges in English-medium engineering education*. (Doctoral dissertation). Delft, The Netherlands: Delft University of Technology.
- Kuteeva, M. 2011. "Teaching and learning in English in parallel-language and ELF settings: Debates, concerns and realities in higher education". *Ibérica*, 22:5-12.
- Laufer, B. & J. Hulstijn. 2001. "Incidental vocabulary acquisition in a second language: the construct of task-induced involvement". *Applied Linguistics* 22/1:1-26.
- Llinares, A. & E. Dafouz. 2010. "Content and Language Integrated Programmes in the Madrid Region: Overview and research findings". In Lasagabaster, D. & Y. Ruiz de Zarobe (Eds.). *CLIL in Spain: Implementation, Results and Teacher Training*. Newcastle: Cambridge Scholars Publishing, 95-114.
- Marsh, D. & T. Nikula. 1999. "Terminology, approach and raison d'être." In D. Marsh & G. Langé (Eds.). *Implementing Content and Language Integrated Learning*. Jyväskylä, Finland: TIE-CLIL, 9-16.
- Mauranen, A. 2012. *Exploring ELF: Academic English Shaped by Non-native Speakers*. Cambridge : Cambridge University Press.
- Ortigosa, P., J. Redondo, S. Salaberri-Ramiro & E. Garzón. 2011. "Design of CLIL activities for computer engineering courses at the university." *EDULEARN11 Proceedings (3rd International Conference on Education and New Learning Technologies)*, 2311-2319.
- Pecorari, D., P. Shaw, H. Malmström & A. Irvine. 2011. "English textbooks in parallel-language tertiary education." *TESOL Quarterly*, 45: 313-333.
- Pecorari, D., P. Shaw, A. Irvine, H. Malmström & Š. Mežek. 2012. "Reading in tertiary education: Undergraduate student practices and attitudes." *Quality in Higher Education*, 18/2: 235-256.
- Phillipson, R. 2003. *English-Only Europe? Challenging Language Policy*. London: Routledge.
- Schmidt, R. 1994. "Deconstructing consciousness in search of useful definitions for applied linguistics." *AILA Review*, 11:11-26.
- Seidlhofer, B. 2001. "Closing a conceptual gap: the case for a description of English as a lingua franca." *International Journal of Applied Linguistics*, 11/2:133-158.
- Sert, N. 2008. "The language of instruction dilemma in the Turkish context." *System*, 36:156-171.
- Shaw, P. & A. MacMillan. 2008. "Proficiency effects and compensation in advanced second-language reading." *Nordic Journal of English Studies*, 7(3):123-143.
- Shaw, P. & A. MacMillan. 2011. "Components of success in academic reading tasks for Swedish students." *Ibérica*, 22:141-162.
- Söderlundh, H. 2010. *Internationella universitet – lokala språkval: Om bruket av talad svenska i engelskspråkiga kursmiljöer*. University of Uppsala: Skrifter utgivna av Institutionen för nordiska språk.

- Tatzl, D. 2011. "English-medium masters' programmes at an Austrian university of applied sciences: Attitudes, experiences and challenges." *Journal of English for Academic Purposes*, 10:252-270.
- Thøgersen, J. & J. Airey. 2011. "Lecturing undergraduate science in Danish and in English: A comparison of speaking rate and rhetorical style." *English for Specific Purposes*, 30/3:209-221.
- Vallbona, A. & S. Khan. 2012. "First steps towards CLIL: Perceptions and training at a Catalan university." In *TRICLIL 2012 Proceedings: Better CLIL: More Opportunities in Primary, Secondary and Higher Education*. Barcelona: UAB, 132-137.
- Wächter, B. & F. Maiworm. 2008. *English-taught programmes in European higher education: The picture in 2007*. Bonn: Lemmens.

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