

**This is an electronic reprint of the original article.  
This reprint *may differ* from the original in pagination and typographic detail.**

**Author(s):** Airey, John; Lauridsen, Karen M.; Räsänen, Anne; Salö, Linus; Schwach, Vera

**Title:** The expansion of English-medium instruction in the Nordic countries : Can top-down university language policies encourage bottom-up disciplinary literacy goals?

**Year:** 2017

**Version:**

**Please cite the original version:**

Airey, J., Lauridsen, K. M., Räsänen, A., Salö, L., & Schwach, V. (2017). The expansion of English-medium instruction in the Nordic countries : Can top-down university language policies encourage bottom-up disciplinary literacy goals?. *Higher Education*, 73(4), 561-576. <https://doi.org/10.1007/s10734-015-9950-2>

All material supplied via JYX is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of the repository collections is not permitted, except that material may be duplicated by you for your research use or educational purposes in electronic or print form. You must obtain permission for any other use. Electronic or print copies may not be offered, whether for sale or otherwise to anyone who is not an authorised user.

*Higher Education.*

*The International Journal of Higher Education Research*

ISSN 0018-1560

High Educ

DOI 10.1007/s10734-015-9950-2

Published online: 23 October 2015

**The Expansion of English-medium Instruction in the Nordic Countries.  
Can Top-down University Language Policies Encourage Bottom-up  
Disciplinary Literacy Goals?**

John Airey,<sup>1,2\*</sup> Karen M. Lauridsen,<sup>3</sup> Anne Räsänen,<sup>4</sup> Linus Salö<sup>5</sup>, Vera Schwach<sup>6</sup>

---

<sup>1</sup> John Airey, Department of Languages, Linnaeus University, Kalmar Sweden, \*john.airey@physics.uu.se.

<sup>2</sup> University Physics Education Research Group, Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden.

<sup>3</sup> Centre for Teaching and Learning (CTL), School of Business and Social Sciences, Aarhus University, Aarhus, Denmark.

<sup>4</sup> University of Jyväskylä Language Centre, Jyväskylä. Finland.

<sup>5</sup> Centre for Reserach on Bilingualism, Stockholm University, Stockholm, Sweden.

<sup>6</sup> The Nordic Institute for Studies in Innovation, Research and Education, Oslo, Norway.

## **Introduction**

At the time of writing, many countries in Europe are in the process of introducing courses and programmes offered in English into their higher education systems. This trend towards increased English-medium instruction (EMI) in higher education has been shown to be accelerating over the last 15-20 years (Maiworm and Wächter 2002; Wächter and Maiworm 2008; Wächter and Maiworm 2014). There are a number of questions that this rapid increase in EMI raises, for example: What are the critical issues involved in the expansion of EMI in higher education? What might this expansion of EMI mean for language policies in higher education? Do policy needs change as the proportion of EMI in a country's higher education system grows? Do different disciplines have different policy needs? In this respect, we argue that there is much to be learned by studying the experiences of those countries where EMI has already been expanded in higher education. As an illustration of the wider policy trends that may be at work, this special issue of *Higher Education* examines language policy in the Nordic countries. In this particular article we introduce the setting of Nordic higher education as a backdrop for the special issue and present some of the themes that have surfaced in the Nordic countries during the process of introduction and expansion of EMI. To do this, the article brings together researchers with an intimate knowledge of the development of EMI in higher education in four of the Nordic countries—Denmark, Finland, Norway and Sweden—each of whom have contributed information on the university language environment in their respective countries. We finish the article with a number of conclusions about the introduction of university language policies, and suggest the concept of disciplinary literacy as a possible catalyst for the bottom-up development and implementation of such policies.

## **Language in higher education in the Nordic countries**

The four Nordic countries that are the focus of this article have relatively small populations: Denmark 5.6 million, Finland 5.4 million, Norway 5.1 million, and Sweden 9.5 million. Linguistically, Danish, Norwegian, and Swedish, belong to the Northern-Germanic language group and are broadly mutually intelligible, whilst Finnish belongs to the Finno-Ugric language group. Of these Nordic languages, only Swedish—an official language in both Sweden and Finland—manages to register on the list of the 100 largest languages at position 94 with 8.5

million native speakers<sup>7</sup> (Nationalencyklopedin 2013). Thus, although the number of students in Nordic higher education has increased dramatically since the eighties, with 50% of the population now generally expected to attend higher education during their lifetime, the absolute numbers of speakers of the four languages actively involved in Nordic higher education remains low. With such a small number of first language speakers—and hence very small markets—it is therefore a difficult and costly enterprise for the Nordic countries to maintain and develop the status of their national languages in all of the specialist areas within the higher education domain. It is therefore perhaps unsurprising that the Nordic countries have been shown to be at the forefront of the introduction of EMI in their higher education systems (Wächter and Maiworm 2014).

Whilst the motivations for the introduction of EMI in the Nordic countries may be somewhat different and more pressing than the motivation in countries with larger markets, we argue that there is much to be learned from the Nordic experience. Hence, in this article we present the developments seen in the Nordic countries as a possible antecedent of what the future may hold for other parts of Europe where the use of English in higher education has only recently begun to expand. In what follows then, we will first present descriptions<sup>8</sup> of the language situation in higher education in each of the four countries, before addressing some general themes that can be drawn out from the rise of EMI in the Nordic countries.

## **Denmark**

Denmark has seen a steady rise in the number of EMI programmes since the 1990s. At the time when Denmark signed the Bologna Declaration in 1999, Danish higher education already had a 3+2 year bachelor/master structure, which probably made it less cumbersome for the universities to fairly quickly develop EMI programmes that would attract Danish and international students together.

Figures from the Danish Ministry of Higher Education and Science reveal that, in 2013, 28 per cent of all full-time programmes at Danish universities were offered as EMI. However, this

---

<sup>7</sup> Note that there are also a number of minority languages in the Nordic countries that account for the discrepancy between population and numbers of native speakers.

<sup>8</sup> Note that since it was not possible to obtain similar data for the four countries, the data presented here should not be seen as comparative but rather as a description of the situation in Nordic Higher Education.

average percentage covers a great diversity among the eight Danish universities, and among the main academic areas or faculties. The universities offer between 12 and 61 per cent of their programmes in English; the Technical University of Denmark tops the list with three out of five programmes in English, a fact that is also reflected in the distribution of EMI programmes across main academic areas. The technical (54 per cent) and natural sciences (42 per cent) have the highest percentage of EMI programmes, whereas only 10 per cent of programmes in the humanities and 12 per cent of programmes within health are offered as EMI. In the social sciences (26 per cent), EMI business programmes seem to dominate the picture.

EMI programmes are typically seen as an indication of the internationalisation of higher education, and it is at least true that offering such programmes has allowed Danish higher education institutions to attract a growing number of international full-degree students in the past twenty years (Uddannelses- og Forskningsministeriet 2013; Wächter and Maiworm 2014). The eight Danish universities and a growing number of other higher education institutions all still seem to have internationalisation as a strategic priority with the intention of developing more EMI programmes that will attract more international students to the country.

More often than not, it is taken for granted that lecturers and students are able to seamlessly switch into English in higher education teaching and learning without any problems (Tange 2010). Most recently, the Danish government (2013) explicitly states that – on average – the Danes have a high level of competence in English, and that focus should be on individual multilingualism and on students maintaining and developing their other foreign language(s) during their higher education programme of study. Slightly contrary to this another report with recommendations regarding the teaching and learning of languages in Denmark (Arbejdsgruppen for uddannelse i fremmedsprog 2011) claims that the Danes often overestimate their own proficiency in English, and that – in addition to learning other languages – Danes also need to strengthen their English so that it becomes a functional second language. However, despite the fact that it was the original idea behind establishing the working group, a coherent national language policy has not yet been developed.

## **Finland**

The Finnish higher education system comprises two complementary state-funded sectors: universities and universities of applied sciences (UAS). Both have their own profiles: research and science orientation vs. practical, professional orientation. The national guidelines for Higher Education are provided by the Ministry of Education and Culture, according to which internationalization is needed for societal renewal, for promoting diversity and networking, and for national competitiveness and innovativeness in general. Needless to say, the number of EMI degree programmes is high and a rapid upward trend has been seen since the Bologna reform and EHEA guidelines.

All international degree programmes (IDPs) were evaluated in 2012 by the Finnish Higher Education Evaluation Council, and the statistics that follow are from its final report (Välimaa et al. 2013). There were 399 IDPs in Finnish HEIs, 257 at universities and 142 at UAS. Some 35 % of them were organized within international consortia as joint or double degree programmes. Of the university EMI programmes, 98 % were at the master level, whereas 75 % of the UAS programmes were at the bachelor level. Practically all fields of study were represented, with technology and business as the predominant fields in both (covering some 74 % at the UAS and 50 % at the universities). Some 13,000 students (22 % Finns at the universities, 40 % at the UAS) were studying in these programmes, and the number of teachers involved was over 5,000 and c. 70 % of them were Finns.

The Finnish HEIs are obliged to implement the measures suggested in the national guidelines and to report on them in the annual budget negotiations with the ministry. As regards EMI-related issues directly, the present strategy (Finnish Ministry of Education 2009) addresses the quality of teaching and counselling, demonstration of skills in the language of instruction, and promotion of national languages and culture. These are then specified in institutional language policies, which are in place at most HEIs. In general, teacher competences in English and pedagogy, as well as entry level language requirements of students, are among the quality criteria to be followed and systematically supported. As all HE degrees for Finnish students include compulsory studies in academic Finnish, Swedish, and in one or two foreign language(s), the entry level requirement mostly concerns international students. In addition, the institutional language policy usually provides that both Finnish/Swedish and English scientific communication are to be supported systematically to ensure the quality of theses and assignments and the competence to communicate disciplinary expertise to various audiences

(See for example University of Helsinki 2007; University of Jyväskylä 2012). Moreover, non-Finnish speaking Finns must have opportunities to acquire sufficient Finnish skills for social integration and potential employment in Finland. It should also be mentioned here that all staff members with teaching duties at the Universities of Jyväskylä and Helsinki are required obligatory studies in university pedagogy, regardless of the language of instruction. The UAS also require pedagogical qualifications.

Although internationalization is generally accepted as a necessity, there are also public debates that emerge occasionally about EMI. They relate to language issues, e.g. Finnish students' right to complete their degree in Finnish and/or Swedish, to tuition-free higher education available for all, and to the employability of international graduates in Finland.

### **Norway**

In Norway, higher education is organised in around fifty public sector, state-funded universities and other institutions. The use of EMI in Norwegian higher education was first mapped around 2000 within broader European studies (Ammon and Mc Connell 2002; Maiworm and Wächter 2002). The results suggested low levels of EMI; however, given the nature of these surveys underreporting may be a methodological problem (Schwach 2009). The frequency of EMI programmes at undergraduate and doctoral levels has not yet been thoroughly mapped, however, extrapolating from single case studies, the frequency of EMI seems likely to be considerably lower at the undergraduate level (Brandt and Schwach 2005; Schwach 2009; Schwach et al. 2012) At the master level, Schwach (2009) reports the following data on EMI in Norwegian higher education:

- 27% of master students were enrolled in nominally EMI programmes.
- 50% of students enrolled in EMI-master programmes studied in one of three broad areas; technology, business/economic or medicine.
- 85% of EMI students held Norwegian citizenship.
- International students were divided fifty-fifty between EMI and programmes with Norwegian as the medium of instruction.

It is easy to assume that these EMI figures relate to a situation where all programme-related activities take place in English, however, a random check of larger EMI programmes revealed extensive use of Norwegian. Teaching through English, it seems, does not necessarily mean

that Norwegian disappears from a programme altogether—a finding confirmed by other studies in Norway and elsewhere (Lehtonen et al. 2003; Ljosland 2008; Schwach 2009; Söderlundh 2010)

The increase in EMI programmes is a function of disciplinary, institutional and politically motivated changes. The process had already begun before the Bologna Declaration (1999), and continued with the introduction of new academic degrees in 2003 that empowered students to move across national borders. Since then EMI programmes appear to have grown from a small, specialized segment to a more mainstream activity (Schwach, 2009). In the white paper *The Internationalization of Education (St. meld. nr. 14, 2008–2009)* the Norwegian government proclaimed a twofold strategy to realize its ambitions for internationalization in higher education: by encouraging Norwegian students to study abroad, and through internationalization at home (Nilsson 1999). One result of this policy has been the establishment of EMI programmes. An increase in EMI was also enabled through a structural change, which gave higher education establishments more autonomy to design new programmes. Financing is partly based on the amount of credits taken (ECTS). Here, no distinction is made between credits taken by international students and those taken by home students. The Government also provides an additional grant for international students (Wiers-Jensen 2013). Consequently, universities have become more interested in attracting international students to their bachelor- and master programmes. In this respect, the politics of higher education is at odds with the general national language policy to promote the use of Norwegian, as reflected in the white paper from 2008 St. meld. nr. 35, (2007–2008).

## **Sweden**

According to the Swedish Higher Education Authority some 50 universities and other institutions organize higher education in Sweden. The majority of these, and those enrolling most students, are public sector, state-funded universities. In Sweden, EMI in higher education first attracted attention in a survey of the language situation at Uppsala University (Gunnarsson and Öhman 1997). This study showed that, in 1994, the frequency of EMI was around 15% at the undergraduate level and 70% at the doctoral level, and that EMI was most frequently implemented in science faculties. Reproducing this study ten years later, Melander (2005) showed that EMI had increased in almost every faculty. The ratification of the Bologna Declaration in 2007 introduced the Master level, thus dividing the national higher educational



system into three cycles – undergraduate, Master and doctoral – each of which comprises programmes and independent courses. Moreover, the implementation of the charter coincided with great efforts on the part of Swedish universities in launching EMI Master programmes (Swedish National Agency for Higher Education 2008). Accordingly, quantitative mappings by Salö (2010) and (Dalberg 2013) have pointed to an unprecedented expansion of EMI in higher education since 2007.

As of 2014, the most recent figures suggest that 28% of all programmes are offered in English (Salö and Josephson 2014). All in all, the following trends can be observed. Firstly, EMI is used most extensively in Master programmes, and less at the undergraduate level. For example, in 2008–2009, 65% of the Master programmes were advertised as EMI (Salö 2010). Secondly, EMI frequency is subject to distinct disciplinary differences. In 2008, it was reported that 46% of all advanced EMI programmes were given within the field of technology (Högskoleverket 2008). Correspondingly, while EMI is fairly uncommon in disciplines such as history and law, it occurs more often in physics and computer science (Salö and Josephson 2014). Thirdly, the frequency of EMI appears to correlate with the extent to which educational programmes are connected to specific professions. On this point, Salö and Josephson (2014) point out that EMI is less common in programmes that result in professional qualifications such as psychologist or engineer.

Recently, the Swedish debate on EMI has focused on pedagogical issues connected to students' ability to learn and teachers' ability to teach in a foreign language (e.g. Högskoleverket 2010). As a subject of contestation and controversy, however, EMI in Sweden feeds into the question of English in Swedish academia at large, which has been a central language political issue since the early 90's (e.g. Salö 2014). From this position, the rise of EMI in Sweden has been critiqued for being at odds with democratic ideals and language political aims, as EMI is alleged to have negative long-term effects on the Swedish language as well as to Sweden as a knowledge society<sup>9</sup> (e.g. Gunnarsson 2001). These concerns are reflected in the Swedish Language Act of 2009, section 5, which states that Swedish is to be usable in all areas of society. The Act, however, makes no attempts to regulate EMI. Instead, questions of EMI are referred to local language policies of individual universities.

---

<sup>9</sup> Note however, that other authors have taken a quite different view, suggesting that such issues are overstated (see for example Bolton and Kuteeva 2012; Björkman 2014; Kuteeva 2014; Kuteeva and McGrath 2014).

### **Themes in Nordic higher education**

Having given a brief overview of the language situation in higher education in four Nordic countries, we will now go on to describe some of the main research themes in the development of EMI in Nordic higher education, before moving on to a discussion of what may be learned from these experiences.

#### **Unreflected introduction**

With their small populations and limited internal markets, internationalisation has long been an essential economic necessity for the Nordic countries. Centrally, successive governments have encouraged the use of English in Nordic higher education but have offered little guidance or reflection about how English should be introduced or where it may (or may not) be appropriate—the simple premise seems to be ‘more English is better’. By and large, this laissez-faire attitude can be traced to the underlying reasons universities organise EMI in the first place. On this point, some commentators (e.g. Börjesson 2005; Dalberg 2013) have argued that the internationalisation of higher education should be viewed as an attempt by universities to strengthen their position at home. Such a strategy relies more on the university being associated with an international approach than participating in a tug-of-war over the best incoming students.

#### **Growing criticism - domain loss**

The expansion of EMI was not without its critics. As early as 1989 Teleman predicted that, “[...] the universities of the smaller countries will shift towards Anglo-American, in connection with their striving to create education programmes that sell within the whole market” (Teleman 1989 :18-19) Here, Gunnarsson (2001) for example warned that the Nordic academic community ran the risk of diglossia—a division of functions between languages—with English as the academic language and the Nordic languages relegated to being used in administration and everyday social interactions. Teleman’s paper triggered a discussion that continues to this day in the Nordic countries about *domain loss*. As the debate unfolded over the years to come, the number of domains alleged to be threatened was narrowed down until English as a language of education stood out as the most crucial area for exercising defence of the Nordic languages (Salö 2014).

#### **Pragmatic protectionism—parallel language use**

Initially limited to an internal debate amongst linguists, the rhetoric of domain loss quickly entered the political sphere. Here the Nordic Council of Ministers played a major role. The council is a forum for Nordic inter-governmental cooperation, where the Nordic governments and the ministers for specific policy areas discuss and agree on issues of mutual interest.<sup>10</sup> The preservation and promotion of the Nordic languages is naturally one such issue dealt with in this forum. In 2006, the Nordic ministers for education and culture met to discuss language policies. The resulting declaration on Nordic language policy recommended the adoption of *parallel language use*, which is explained as follows: ‘the concurrent use of several languages within one or more areas. None of the languages abolishes or replaces the other; they are used in parallel’ (Nordic Council of Ministers 2007: 93). The notion of *several* languages in use at Nordic universities is partly based on the desire for mutual intelligibility between the Nordic languages, and partly on the fact that Finland is officially bilingual (Swedish/Finnish). However, there can be no doubt that the promotion of parallel language use was mainly a pragmatic solution constructed in order to deal with the rapid expansion of English in Nordic higher education. The term quickly became the established consensus<sup>11</sup>. In the words of Gregersen and Josephson (2014: 45) ‘parallel language use is a necessity—only its implementation can be discussed’ (our translation). However, as Phillipson (2006: 25) observed, although parallel language use may be ‘an intuitively appealing idea’, it is also a ‘somewhat fuzzy and probably unrealistic target’. Kuteeva and Airey (2014: 536) went further in their critique, questioning the practical implementation of parallel language use, suggesting it was an ‘unoperationalised political slogan’. In this respect, Airey and Linder (2008) take a bottom-up, pedagogical perspective, and suggest that the introduction of languages other than the local language(s) into university courses should have a definite purpose defined in the syllabus. Thus, instead of focusing on university-wide parallel language use, they insist that the debate should rather be played out at the level of individual courses and programmes. In this vision, concepts such as disciplinary discourse (Airey 2009; Northedge 2003) and disciplinary literacy (Airey 2011a; Airey 2013; Geisler 1994) become important since they problematise the issue of *which disciplinary skills* students need to master in *which languages*. We return to this argument later in our conclusions.

---

<sup>10</sup> [www.norden.org](http://www.norden.org).

<sup>11</sup> See Mežek 2013 for a more detailed discussion of the introduction and expansion of parallel language use. See also Källkvist and Hult (2014) for an ethnographic discourse analysis of a Swedish university language policy committee, mapping the introduction of the term parallel language use and the committee’s subsequent negotiation of its meaning.

## **Research into teaching and learning in English**

As the proportion of EMI in Nordic higher education increased, questions about the dominance of English and the future role of the Nordic languages in higher education began to be raised by non-linguists and mainstream actors within the disciplines themselves. These questions led to a large number of surveys and interviews with students and teachers that attempted to document the linguistic landscape in higher education—a focus that continues to the present day. These studies examine two areas; lecturer and student attitudes to the use of English and the prevalence of EMI in higher education (e.g. Brandt and Schwach 2005; Bolton and Kuteeva 2012; Cozart and Lauridsen 2012; Dalberg 2013; Falk 2001; Gregersen and Josephson 2014; Gunnarsson and Öhman 1997; Jensen et al. 2009; Lahtonen and Pyykkö 2005; Melander 2005; Pecorari et al. 2011; Salö 2010; Schwach 2009; Schwach et al. 2012; Tella et al. 1999; Werther et al. 2014).

This research confirmed the increasing trend towards EMI documented by Wächter and Maiworm (2014) across a wide spectrum of disciplines. However, growth in EMI in the Nordic countries has not been evenly distributed across disciplines. Research shows high levels of EMI in for example Natural sciences and engineering, but much lower levels in humanities, arts and vocational courses, with the social sciences somewhere in between. Bolton and Kuteeva (2012) link these disciplinary differences to different attitudes to EMI in the various disciplines. Building on this work, Kuteeva and Airey (2014) show that these attitudes to EMI are not arbitrary, but rather appear to be related to the type of knowledge structure favoured by the discipline (Bernstein 1999). Besides surveys, research into the educational viability of EMI can be divided into two themes namely; “Do students need support in order to learn in English?” and “Do teachers need support in order to teach in English?” We summarize the Nordic research in this area below.

### **Do students need support in order to cope with EMI?**

Internationally the feasibility of EMI has been questioned by a number of researchers who postulate that limitations in English language skills may inhibit student ability to explore abstract disciplinary concepts (Duff 1997; Met and Lorenz 1997).

Working at a technical university in the Netherlands, Klaassen (2001) found a drop in test results when changing from L1 and EMI programmes. Interestingly, this difference disappeared

after one year. Klaassen suggests that the students in her study had adapted to EMI. Building on this work, Airey and Linder (2006) found decreased interaction in EMI lectures (students asked and answered fewer questions) and a focus on the process of notetaking rather than content. Similarly, in Norway, Hellekjær (2010) found the majority of students could cope with EMI lectures though a considerable number did have comprehension difficulties in EMI and many reported problems with notetaking.

In Sweden, Hincks (2010) demonstrated that students speak more slowly in English L2 presentations, however Airey (2010) showed that although speech rate in disciplinary explanations was indeed much slower in English, the disciplinary accuracy of the student descriptions was roughly the same in English and in Swedish.

In terms of reading, Karlgren and Hansen (2003) and Söderlundh (2004) show that Swedish students adopt a more surface approach to reading material in English. However, Shaw and McMillion (2008) claim that the reading comprehension of Swedish students in their study was comparable to that of British students provided they were given extra time.

In summary, research seems to suggest that many Nordic students do appear to be able to cope with EMI, but more time may be needed to achieve similar disciplinary results as L1 programmes. However, more research is needed. For example, the situation is slightly more demanding in the case of international two-year master's programmes. According to some Finnish studies and surveys, students have problems in conceptual level language use, research writing, and intercultural issues involved in a multilingual and multicultural classroom (Lehtonen et al. 2003; Räsänen 2000; Räsänen 2007).

### **Do teachers need support in order to cope with EMI?**

Other research has considered the teaching aspect, asking whether lecturers are appropriately equipped for EMI. Internationally, early studies of EMI teaching were carried out in the Netherlands. Vinke (1998) reported reductions in redundancy, speech rate, expressiveness, clarity and accuracy of expression in EMI lecturers, however, Klaassen (2001:176) claimed that student-centred teaching was much more important than the language level of the teacher. Klaassen suggested a threshold level of TOEFL 580—approximately equal to level C1 on the Common European Framework—as the limit below which language training should be

necessary (Council of Europe 2001; Educational Testing Service 2004). Above this level Klaassen claims that pedagogical training will be more useful than further language training. The importance of teacher pedagogy has also been reported in Finland, where Suviniitty (2010) finds that students graded lectures that included interactive features as generally easier to understand, irrespective of the language competence of the lecturer. Also in Finland, Lehtonen and Lönnfors (2001) report similar findings to Vinke's. The lecturers in their study also mention problems in pronunciation and also suggest that they would feel uncomfortable correcting students' English. Similar findings have also been reported from Sweden by Airey (2011b). In Denmark, Thøgersen and Airey (2011) found the lecturer in their study spoke more slowly in EMI classes, taking 22% more time to cover the same material. The lecturer also adopted a more formal textbook style in EMI. As regards the evaluations of the international master's programmes in Finland (e.g. Räsänen 2007; Räsänen and Klaassen 2006; Välimaa et al. 2013) reports indicate that management of international classrooms, attending to diverse learning styles through flexible pedagogical approaches, and ensuring the clarity of instructions for, and guidance of, thesis writing are the key topics to be addressed in the teacher in-service development programmes in intercultural pedagogy.

### **Teacher certification for EMI**

Based on the above research, training and certification courses for teaching in EMI have been introduced by a number of Nordic universities. With few exceptions, the picture regarding support for EMI teachers and students is generally *ad hoc* and taken care of at faculty or departmental level (See Airey 2011b for an example of the training situation in Sweden). In Finland, for example, Tohtatun (2012) recently proposed a service portfolio that could be used for the documentation and systematic development EMI teacher competences for higher education. However, the most progress in this area has been made in Denmark. Here the University of Copenhagen is leading the way, having created the *Centre for Internationalisation and Parallel Language Use* (CIP) in 2008. The centre has developed the *Test of Oral English Proficiency for Academic Staff* (TOEPAS) (Kling and Stæhr 2011; Kling and Stæhr 2012). This test is used throughout the university for the certification of staff who plan to teach EMI courses. At the time of writing, 396 lecturers have been tested using the TOEPAS, eleven of whom were judged to have insufficient English language skills and did not receive certification.

## **Discussion and conclusions**

The main conclusion we draw from our analysis of the rise of EMI in the Nordic countries is that whilst the creation of university language policies may be a desirable goal, drafting such policies is fraught with difficulty. The need for a unified language policy becomes more pressing as EMI expands and becomes a mainstream activity but so too does the potential for disagreement about what should be included in such a policy.

The research available suggests that the movement from an ad hoc, piecemeal approach to EMI to a university-wide language policy will require careful handling if the resultant policy is not to be seen as divorced from the day-to-day reality of work in the disciplines. Drawing on Bernstein (1999), Kuteeva and Airey (2014) show clearly that disciplines with different knowledge structures have quite different language policy needs—what is appropriate for one discipline may be untenable for another. For example, suppose a university decided to measure research quality in terms of the number of publications in international, English-language peer-reviewed journals. This research policy would unfairly favour disciplines such as the natural sciences where there is a long tradition of such publication and a wide range of suitable journals available. However, there is a much more fundamental problem with such a research policy. In the sciences, language is often viewed as a passive bearer of meaning—an unproblematic means for reporting quantitative results (See for example Airey & Linder 2009:44). Clearly, this is not the case in the humanities and social sciences where language is conceived as integral to the thoughts and meanings being expressed. The same research policy, then, clearly places much higher linguistic demands on researchers in the humanities and social sciences. Here we can imagine that language policy and research policy may well be in conflict. Should the function of language policy be to further the goals of research policy? Or should research policy be modified to allow for different linguistic traditions?

Thus, Kuteeva and Airey (2014) conclude that from a disciplinary perspective, a one-size-fits-all university language policy is unlikely to correspond to the needs of all disciplines equally. Moreover, following Klaassen (2001) and Suviniitty (2010), such a language policy should be complemented with appropriate didactics in the international classroom.

Clearly, university language policy is about more than meeting the needs of the disciplines. There will always be an element of regulation encouraging disciplines to adopt a more global

rather than local perspective. However, we suggest that the day-to-day work of university lecturers is predominantly driven by disciplinary issues, rather than the desire to ameliorate longer-term societal and cultural trends (such as the perceived marginalisation of a national language). We should therefore not be surprised if centralized university language policies are often seen as something peripheral to the work carried out in the disciplines. From experience, language policies that are not seen as relevant/practicable within the disciplines risk being ignored or circumvented. We therefore agree with Kuteeva and Airey (2014) that university language policies must be flexible enough to allow for disciplinary differences.

Drawing on Spolsky (2004) Dafouz and Smit (2014) claim that ‘when dealing with the language policy of a particular higher educational institution, it is paramount to also consider the actual language practices that teachers and students are engaging in as well as the potentially different and conflicting communicative and academic aims agents might be pursuing’. How might this be achieved? Here Airey (2011a; 2013) suggests the concept of disciplinary literacy as a useful catalyst for the discussion of disciplinary language-learning goals. Airey (2011a) claims that the goal of university education is the production of disciplinary literate graduates, where disciplinary literacy is defined as *the ability to appropriately participate in the communicative practices of the discipline*. These disciplinary communicative practices are developed for use in three distinct, albeit intersecting, areas; the academy, the workplace and society at large. Clearly, communicating the discipline in these different areas places quite different demands on language(s). Thus, the appropriate disciplinary literacy mix varies from discipline to discipline<sup>12</sup>. Drawing on this work, we recommend that programme and course syllabuses should detail disciplinary literacy outcomes alongside more traditional learning outcomes. Here, we believe it is not enough to simply incorporate generalized references to the language of instruction of the form ‘*in this course students will practice the use of disciplinary English*’. Rather we suggest more specific references along the lines of ‘*in this course the following skills will be developed in the following language(s)*’. There are two consequences of including disciplinary literacy outcomes of this type in the syllabus: first, students will need to be taught these skills and second they must also be assessed.

---

<sup>12</sup> See Linder et al. (2014) for an empirical discussion of disciplinary literacy goals in undergraduate physics courses.



Following Airey (2012: 64) we believe that ‘all teachers are language teachers’ since their job is to introduce students to the discourse of their chosen discipline. As such, we claim that teachers should be able to motivate the language choice in the courses they teach, describe the (linguistic) skills that are cultivated and detail how these skills are developed and assessed. Moreover, there should be a clear understanding of how the skills developed in a particular course relate to the overall goal—the development of disciplinary literate graduates.

13

We therefore suggest that university language policies should:

1. Encourage the faculty discussion of disciplinary literacy goals.
2. Require disciplines to declare the language-learning outcomes of each course.

This includes detailing how these goals relate to the overarching disciplinary literacy goals of the curriculum and how these skills will be taught and assessed.

### **Summary**

In this paper we have discussed the development of EMI in Nordic higher education and attempted to draw some conclusions from this experience. We have described the expansion of EMI and the subsequent introduction of university language policies. We explain how the relationship between the local language and English has been problematized in terms of parallel language use and highlight the flaws in this seemingly appealing phrase. We identify a lack of research into teaching and learning outcomes of EMI, few formalised support mechanisms for teachers and students, and a lack of appreciation of disciplinary differences in the implementation of policy. We suggest that a focus on such issues would be advantageous and recommend a bottom-up approach to policy based on encouraging the grass-roots discussion of disciplinary literacy goals. We believe that as well as having a positive linguistic effect, such discussions have the distinct potential to reform learning within the disciplines themselves. Here there is an opportunity for the perception of university language policies to change from a bureaucratic document divorced from disciplinary reality, to an important tool with something relevant to say about the day-to-day task of creating disciplinary literate graduates.

### **References**

- Airey, J. (2009). "Science, Language and Literacy. Case Studies of Learning in Swedish University Physics. Acta Universitatis Upsaliensis. Uppsala Dissertations from the Faculty of Science and Technology 81. Uppsala".
- Airey, J. (2010). "The ability of students to explain science concepts in two languages." *Hermes - Journal of Language and Communication Studies*, 45, 35-49.
- Airey, J. (2011a). "The Disciplinary Literacy Discussion Matrix: A Heuristic Tool for Initiating Collaboration in Higher Education." *Across the disciplines*, 8(3), unpaginated.
- Airey, J. (2011b). "Talking about Teaching in English. Swedish university lecturers' experiences of changing their teaching language." *Ibérica*, 22(Fall), 35-54.
- Airey, J. (2012). "I don't teach language." The linguistic attitudes of physics lecturers in Sweden." *AILA Review*, 25(2012), 64-79.
- Airey, J. (2013). "Disciplinary Literacy", in E. Lundqvist, L. Östman, and R. Säljö, (eds.), *Scientific literacy – teori och praktik* Gleerups, pp. 41-58.
- Airey, J., and Linder, C. (2006). "Language and the experience of learning university physics in Sweden." *European Journal of Physics*, 27(3), 553-560.
- Airey, J., and Linder, C. (2008). "Bilingual scientific literacy? The use of English in Swedish university science programmes." *Nordic Journal of English Studies*, 7(3), 145-161.
- Airey, J., and Linder, C. (2009). "A disciplinary discourse perspective on university science learning: Achieving fluency in a critical constellation of modes." *Journal of Research in Science Teaching* 46(1): 27-49
- Ammon, U., and Mc Connell, G. (2002). "English as an Academic Language in Europe. A Survey of its Use in Teaching (Duisburg Papers on Research in Language and Culture), (Peter Lang), Frankfurt am Main. ." *Duisburg Papers on Research in Language and Culture*, Peter Lang Frankfurt am Main.
- Arbejdsgruppen for uddannelse i fremmedsprog. (2011). "Sprog er nøglen til verden." <http://fivu.dk/publikationer/2011/sprog-er-noglen-til-verden-2013-anbefalinger-fra-arbejdsgruppen-for-uddannelse-i-fremmedsprog>
- Bernstein, B. (1999). "Vertical and horizontal discourse: An essay." *British Journal of Sociology Education*, 20(2), 157-173.
- Björkman, B. 2014b. "Language ideology or language practice? An analysis of language policy documents at Swedish universities." *Multilingua* 33(3/4). 335-365.
- Bolton, K., and Kuteeva, M. (2012). "English as an academic language at a Swedish university: parallel language use and the 'threat' of English." *Journal of Multilingual and Multicultural Development*, 33(5), 429-447.
- Börjesson, M. (2005). "Transnationella utbildningsstrategier vid svenska lärosäten och bland svenska studenter i Paris och New York." *SEC Research Reports*. Uppsala: Uppsala University.
- Brandt, S. S., and Schwach, V. (2005). *Norsk, engelsk og tospråklighet i høyere utdanning En pilotstudie om bruk av engelsk i fem fagtilbud ved fire læresteder [Norwegian, English and bilingualism in higher education. A pilot study of the use of English in five courses at four institutions]*, Oslo.
- Council of Europe. (2001). "Common European Framework of Reference for Languages." *Cambridge University Press*, [http://www.coe.int/t/dg4/linguistic/Source/Framework\\_EN.pdf](http://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf).
- Cozart, S. M., and Lauridsen, K. M. (2012). "Internationaliseringens udfordringer afspejlet i Studiemiljø2011 på Aarhus Universitet: der er stadig plads til forbedringer!" *Dansk Universitetspædagogisk Tidsskrift*, 13.
- Dafouz, E., and Smit, U. (2014). "Towards a Dynamic Conceptual Framework for English-Medium Education in Multilingual University Settings." *Applied Linguistics*.
- Dalberg, T. (2013). "Engelskans utbredning i den svenska högskolan. En kartläggning av engelskspråkiga benämningar av program och kurser i svensk högre utbildning 1993-2009. ." *Rapporter från Forskningsgruppen för utbildnings- och kultursociologi* 52. Uppsala: SEC, Uppsala universitet, 2013.
- Danish government. (2013). "Øget indsigt gennem globalt udsyn – flere studerende på studieophold i udlandet, styrkede internationale læringsmiljøer og bedre fremmedsprogskompetencer." <http://fivu.dk/uddannelse-og-institutioner/internationalisering/temaer-under-internationalisering/oget-indsigt-gennem-globalt-udsyn>.
- Duff, P. A. (1997). "Immersion in Hungary: an ELF experiment", in R. K. Johnson and M. Swain, (eds.), *Immersion education: International perspectives*. Cambridge, UK: CUP, pp. 19-43.
- Educational Testing Service. (2004). "Mapping TOEFL, TSE, TWE, and TOEIC on the Common European Framework." <http://www.besig.org/events/iateflpce2005/ets/CEFSummaryMarch04.pdf>.

- Falk, M. L. (2001). *Domänförluster i svenskan [Domain losses in Swedish]*: Nordic Council of Ministers. Finnish Ministry of Education. (2009). "Strategy for the Internationalisation of Higher Education Institutions in Finland 2009–2015." 2009:23  
<http://www.okm.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/opm23.pdf>
- Geisler, C. (1994). *Academic literacy and the nature of expertise: Reading, writing, and knowing in academic philosophy*, Hillsdale, NJ: Erlbaum.
- Gregersen, F., and Josephson, O. (2014). "Språkpolitik och internationalisering på nordiska universitet [Language policy and internationalisation at Nordic universities]", in F. Gregersen, (ed.), *Hvor parallelt Om parallellspråkighet på Nordens universitet*. Copenhagen Denmark: TemaNord. Nordiska ministerrådet.
- Gunnarsson, B.-L. (2001). "Swedish, English, French or German – the Language Situation at Swedish Universities", in U. Ammon, (ed.), *The Dominance of English as a Language of Science. Effects on Other Languages and Language Communities*. Berlin/New York: Mouton de Gruyter, pp. 229–316. .
- Gunnarsson, B.-L., and Öhman, K. (1997). *Det internationaliserade universitetet. En studie av bruket av engelska och andra främmande språk vid Uppsala universitet [The Internationalized University. A Study of the Use of English and Other Foreign Languages at Uppsala University]*, TeFa No.16. Uppsala: Institutionen för nordiska språk, Uppsala universitet.
- Hellekjær, G. O. (2010). "Language Matters: Assessing Lecture Comprehension in Norwegian English-Medium Higher Education.", in C. Dalton-Puffer, T. Nikula, and U. J. B. Smit, (eds.), *Language Use and Language learning in CLIL Classrooms*. John Benjamins, pp. 233-258.
- Hincks, R. (2010). "Speaking rate and information content in English lingua franca oral presentations." *English for Specific Purposes*, 29(1), 4-18.
- Högskoleverket. (2010). *Om undervisning på engelska*, Stockholm: Högskoleverket Rapport 2010:15R.
- Jensen, C., Stæhr, L. S., and Thøgersen, J. (2009). *Underviseres holdninger til engelsk som undervisningsprog – en spørgeskemaundersøgelse på Københavns Universitet [Teacher attitudes to English as a teaching language a questionnaire administered at Copenhagen University]*. Center for Internationalisering og Parallelsproglighed Københavns Universitet, Copenhagen.
- Källkvist, M., and Hult, F. (2014). "Discursive mechanisms and human agency in language policy formation: negotiating bilingualism and parallel language use at a Swedish university." *International Journal of Bilingual Education and Bilingualism*, DOI: 10.1080/13670050.2014.956044.
- Karlgren, J., and Hansen, P. "Cross-language relevance assessment and task context." *Presented at Advances in Cross-Language Information Retrieval. Third Workshop of the Cross-Language Evaluation Forum, CLEF 2002.*, Rome, Italy.
- Klaassen, R. (2001). *The international university curriculum: Challenges in English-medium engineering education*. Doctoral Thesis, Department of Communication and Education, Delft University of Technology. Delft. The Netherlands.
- Kling, J., and Stæhr, L. (2011). "Assessment and assistance: Developing university lecturers' language skills through certification feedback", in K. R Cancino, K. Jæger, and L. Dam, (eds.), *Policies, Principles, Practices: New Directions in Foreign Language Education in the Era of Educational Globalization* Newcastle upon Tyne, UK Cambridge Scholars Press, pp. 213-245.
- Kling, J., and Stæhr, L. S. (2012). "The development of the Test of Oral English Proficiency for Academic Staff (TOEPAS) ."  
[http://cip.ku.dk/forskning/cip\\_publicationer/CIP\\_TOEPAS\\_Technical\\_Report.pdf](http://cip.ku.dk/forskning/cip_publicationer/CIP_TOEPAS_Technical_Report.pdf).
- Kuteeva, M. (2014). "The parallel language use of Swedish and English: The question of "nativeness" in university policies and practices." *Journal of Multilingual and Multicultural Development*, 35(4), 332-344.
- Kuteeva, M., and McGrath, L. (2014). "Taming Tyrannosaurus rex: English use in the research and publication practices of humanities scholars in Sweden." *Multilingua*, 33(3/4), 367-389.
- Kuteeva, M., and Airey, J. (2014). "Disciplinary Differences in the Use of English in Higher Education: Reflections on Recent Policy Developments " *Higher Education*, 67(5), 533-549.
- Lahtonen, S., and Pyykkö, R. (2005). "Korkeakoulujen vieraskielisen opetuksen arvioinnin seuranta [Follow-up study of foreign-language mediated instruction in Higher Education - publication in Finnish only]." [http://www.kka.fi/files/198/KKA\\_0605V.pdf](http://www.kka.fi/files/198/KKA_0605V.pdf)
- Lehtonen, T., and Lönnfors, P. (2001). "Teaching through English: A blessing or a damnation? Conference papers in the new millenium." University of Helsinki Language Centre.
- Lehtonen, T., Lönnfors, P., and Virkkunen-Fullenwider, A. (2003). "Teaching through English: a University Case Study", in C. van Leeuwen and R. Wilkinson, (eds.), *Multilingual Approaches in University Education*. Maastricht: Uitgeverij Valkhof Pers.

- Linder, A., Airey, J., Mayaba, N., and Webb, P. (2014). "Fostering Disciplinary Literacy? South African Physics Lecturers' Educational Responses to their Students' Lack of Representational Competence." *African Journal of Research in Mathematics, Science and Technology Education*, 18(3), DOI:10.1080/10288457.2014.953294.
- Ljosland, R. (2008). *Lingua franca, prestisjespråk og forestilt fellesskap: Om engelsk som akademisk språk i Norge. Et kasusstudium i bred kontekst*, Trondheim.
- Maiworm, F., and Wächter, B. (2002). "English-language-taught degree programmes in European higher education, Trends and success factors" *ACA papers on International Cooperation in Education*. Lemmens Verlags & Mediengesellschaft: Bonn.
- Melander, B. (2005). "Engelska och svenska vid Uppsala universitet - en uppföljning. [English and Swedish at Uppsala University - a follow-up report]", *Text i arbete/Text at work Festskrift till Britt-Louise Gunnarsson den 12 januari 2005*. Uppsala: Institutionen för nordiska språk, Uppsala universitet, pp. 135-143.
- Met, M., and Lorenz, E. B. (1997). "Lessons from U.S. immersion programs: Two decades of experience", in R. K. Johnson and M. Swain, (eds.), *Immersion education: International perspectives*. Cambridge, UK: CUP, pp. 243-264.
- Mežek, Š. (2013). *Advanced second-language reading and vocabulary learning in the parallel-language university*. PhD thesis. Department of English, Stockholm University.  
<http://su.divaportal.org/smash/record.jsf;jsessionid=ba4c7bb05901bcedf4accbaf169d?searchId=1&pid=diva2:655536>
- Nationalencyklopedin. (2013). "Världens 100 största språk 2010 [The World's 100 Largest Languages in 2010]". Stockholm: Bra Böcker.
- Nilsson, B. (1999). "Internationalisation at home - theory and praxis." *EAIE (European Association for International Education) Forum*, Spring 1999, unpaginated.
- Nordic Council of Ministers. (2007). *Deklaration om nordisk språkpolitik 2006 [Declaration on a Nordic language policy]*. Copenhagen.
- Northedge, A. (2003). "Enabling participation in academic discourse." *Teaching in Higher Education*, 8(2), 169-180.
- Pecorari, D., Shaw, P., Irvine, A., and Malmström, H. (2011). "English for academic purposes at Swedish universities: Teachers' objectives and practices." *Ibérica*, 22(Fall), 55-77.
- Phillipson, R. (2006). "English, a cuckoo in the European higher education nest of languages." *European Journal of English Studies*, 10(1), 13-32.
- Räsänen, A. (2000). *Learning and Teaching through English at the University of Jyväskylä: project report from Jyväskylä University Language Centre*. Jyväskylä.
- Räsänen, A. (2007). *Missä mennään maisteriohjelmassa? (How are the master's programmes doing?)*, Jyväskylä.: University of Jyväskylä Language Centre Working Paper 3.
- Räsänen, A., and Klaassen, R. G. (2006). "From learning outcomes to staff competencies in integrated content and language instruction at the higher education level", in R. Wilkinson, V. Zegers, and C. van Leeuwen, (eds.), *Bridging the Assessment Gap in English-Medium Higher Education*. Bochum: AKS-Verlag, pp. 256-278.
- Salö, L. (2010). *Engelska eller svenska? En kartläggning av språksituationen inom högre utbildning och forskning [English or Swedish? A survey of the language situation in higher education and research]*, Stockholm: Språkrådet.
- Salö, L. (2014). "Language ideology and shifting representations of linguistic threats: A Bourdieusian re-reading of the conceptual history of domain loss in Sweden's field of language planning", in A. K. Hultgren, F. Gregersen, and J. Thøgersen, (eds.), *English in Nordic Academia: Ideology and Practice*. Amsterdam/Philadelphia: John Benjamins, pp. 83-110.
- Salö, L., and Josephson, O. (2014). "Landrapport Sverige: Parallelspråkighet vid svenska universitet och högskolor", in F. Gregersen, (ed.), *Hvor parallelt. Om parallelspråkighet på Nordens universitet*. Copenhagen: TemaNord, Nordiska Ministerrådet, pp. 261-322.
- Schwach, V. (2009). "Masterprogrammer på engelsk i Norge. I bredde og nisjer." *NIFU STEP* 36.
- Schwach, V., Brandt, S. S., and Dalseng, C. F. (2012). "Det gikk på engelsk og norsk, engelsk og norsk?. En undersøkelse av språk i pensum på grunnnivå i høyere utdanning." *NIFU rapport 7/2012*.
- Shaw, P., and McMillion, A. (2008). "Proficiency effects and compensation in advanced second-language reading." *Nordic Journal of English Studies*, 7(3), 123-143.
- Söderlundh, H. (2004). "Lika bra på engelska? En undersökning av hur studenter i Sverige förstår kurslitteratur på svenska resp. engelska [Just as good in English? A study of Swedish students' understanding of course texts in Swedish and in English]." *Språk och stil*, 14, 137-165.

- Söderlundh, H. (2010). *Internationella universitet - lokala språkval [International University - local language choice]*, Uppsala universitet, Uppsala.
- Spolsky, B. (2004). *Language Policy*, Cambridge, UK: Cambridge University Press.
- Suviniitty, J. (2010). "Lecturers' questions and student perception of lecture comprehension." *Helsinki English Studies* 6, 44-57.
- Swedish National Agency for Higher Education. (2008). *En högskola i världen - internationaliseringen för kvalitet [Swedish universities and globalization - internationalization for quality]*, Stockholm: Högskoleverket.
- Tange, H. (2010). "Caught in the Tower of Babel: university lecturers' experiences with internationalisation." *Language and Intercultural Communication*, 10(2), 137-149.
- Teleman, U. (1989). "Det nordiska språksamarbetet. Idéer och framtidsuppgifter [Nordic language cooperation. Ideas and future challenges]." *Språk i Norden*, 14-32.
- Tella, S., Räsänen, A., and Vähäpassi, A. (1999). "Teaching through a foreign language: From tool to empowering mediator" *Publications of Higher Education Evaluation Council*. Edita: Helsinki.
- Thøgersen, J., and Airey, J. (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.
- Uddannelses- og Forskningsministeriet. (2013). *Internationale studerende på en hel uddannelse i Danmark*. <http://ufm.dk/uddannelse-og-institutioner/statistik-og-analyser/international-mobilitet/internationale-studerende-i-dk.pdf>
- Tohtatun, G. (2012). "Service for Teacher Competencies: Portfolio Proposal for Developing English-Medium Teaching in Higher Education." <https://publications.theseus.fi/handle/10024/29110>
- University of Helsinki. (2007). "University of Helsinki Language Policy." [http://www.ub.edu/slc/socio/Policy\\_Helsinki.pdf](http://www.ub.edu/slc/socio/Policy_Helsinki.pdf).
- University of Jyväskylä. (2012). "University of Jyväskylä Language Policy 2012." <https://http://www.jyu.fi/hallinto/strategia/en/university-of-jyvaskyla-language-policy-2012>.
- Välimaa, J., Fonteyn, K., Garam, I., van den Heuvel, E., Linza, C., Söderqvist, M., Wolff, J., and Kolhinen, J. (2013). "An Evaluation of International Degree Programmes in Finland." *Finnish Higher Education Evaluation Council 2:2013* [http://www.finheec.fi/index.phtml?C=1284&l=en&product\\_id=268&cs=4](http://www.finheec.fi/index.phtml?C=1284&l=en&product_id=268&cs=4).
- Vinke, A. A., Snippe, J., and Jochems, W. (1998). "English-medium content courses in Non-English higher education: A study of lecturer experiences and teaching behaviours." *Teaching in Higher Education*, 3(3), 383-394.
- Wächter, B., and Maiworm, F. (2008). *English-taught programmes in European higher education. The picture in 2007*, Bonn: Lemmens.
- Wächter, B., and Maiworm, F. (2014). "English-Taught Programmes in European Higher Education. The state of play in 2014". Bonn: Lemmens
- Werther, C., Denver, L., Jensen, C., and Mees, I. M. (2014). "Using English as a medium of instruction at university level in Denmark: the lecturer's perspective." *Journal of Multilingual and Multicultural Development.*, 35, .443-462.
- Wiers-Jenssen, J. (2013). "Utenlandske studenter i Norge." *NIFU Arbeidsnotat 12-2013*.