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The content lecturer and English-medium instruction (EMI): epilogue to the special issue on EMI in higher education

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Introduction

In this article, I summarise and comment on the work presented by the authors of the six papers in the special issue of the *International Journal of Bilingual Education and Bilingualism* on English-medium instruction (EMI) in higher education, edited by Aintzane Doiz and David Lasagabaster. First, I would like to own up about my background – I am not a linguist. I am a Senior Lecturer in Science Education and a Reader in University Physics Education. In my work, I adopt a social semiotic approach to investigate disciplinary learning in the academy. First introduced by Halliday (1978) social semiotics was later given a critical flavour by Hodge and Kress (1988). Following Airey and Linder (2017), I define social semiotics as *the study of the development and reproduction of specialised systems of meaning making in particular sections of society*. In my work then, I use social semiotics to make sense of undergraduate teaching and learning. In this approach, EMI is viewed as one component of a complex system of disciplinary meaning-making that can include multiple languages, mathematics, diagrams, graphs, hands-on work in the laboratory, etc. I will return to this multimodal, disciplinary literacy aspect towards the end of this article.

There has been a lot of work in the field of EMI since I first became interested in the area. As a PhD student, I attended the first conference on Integrating Content and Language in Higher Education (ICLHE) in Maastricht in 2003. At that conference, there were a number of university lecturers from a range of disciplines. Most of the contributions discussed the participants' practical experiences of running EMI courses. The submissions were neither particularly theoretical nor research-oriented, rather, people were simply interested in sharing their experiences of doing EMI. Since then, EMI has become much more mainstream and the field has been widely theorised and researched. In particular, applied linguists have become deeply interested in the phenomenon of EMI. Given this rapid expansion, I would like to congratulate the editors of this special issue for selecting a range of contributions that showcase the wide diversity of research themes that are now part of the EMI landscape in higher education.

The articles

Building on his earlier work with reflective language teaching, Farrell addresses the professional development of EMI lecturers. This is clearly an important and underdeveloped area in EMI. Farrell describes a five-stage framework for reflecting on practice, grounded in the work of Donald Schön. The framework starts with *Philosophy* – essentially the professional identity of the teacher.

It is suggested that this aspect can be made visible by teachers telling and retelling their own stories. The second stage of the framework, *Principles*, deals with the teacher's own tacit beliefs about EMI teaching and learning. Here, Farrell proposes accessing these beliefs by attempting to answer the question: 'An EMI teacher is ___?'. *Theory*, deals, not as one might think with formal theories of language learning, but rather examines the basis for the lecturer's choices about what skills should be taught. Farrell suggests such an examination may lead to a reframing of theory, where assumptions about what is necessary can be challenged. *Practice* involves teachers reflecting on their actual classroom practices. This is perhaps the most difficult stage of the framework to implement as teachers rarely have insight into their own classroom practices. Here, Farrell sensibly suggests peer observation and video recording as useful sources of information. The final stage, *Beyond practice*, involves lecturers critically examining the external ramifications of their work.

Having presented his framework, Farrell goes on to examine the ways in which EMI lecturers can reflect on their language practices. Here, he proposes a number of approaches – discussions with other lecturers, writing, classroom observation, action research, narratives and team teaching – all of which can function as potential catalysts to reflection. I did find it surprising that there is no mention of feedback from students here. In my experience, interactions with students and the need to report on formalised student course evaluations have been a rich source of material for reflection – particularly if one has the possibility to adapt the questions asked. This point aside, Farrell's paper resonates with my own experiences working on language courses with content lecturers. The only issue I have found is the difficulty in getting lecturers to reflect in the first place. Content lecturers are busy professionals, and it is unlikely that they will have the motivation to reflect on their language practices unless time is set aside for this. This presents a major challenge to an otherwise well-grounded and important set of proposals.

Inbar-Lourie and Donitsa-Schmidt administered a questionnaire probing student perceptions of the desirable qualities for EMI lecturers. They find that more advanced students tend to be more positive to native speaker norms, but that on the whole, students value a range of qualities such as language proficiency, subject-matter expertise, international experience, pedagogical expertise (both in terms of teaching content and language) and an understanding of the local language and culture. These are clearly important findings. The authors go on to claim that together these attributes form a new construct for defining aspects of the ideal EMI teacher. Whilst this may be true for EMI researchers, for me, it is clear that the attributes mentioned are important *even in monolingual L1 situations*. I would suggest that the introduction of the EMI setting simply heightens student awareness of desirable teacher qualities regardless of the medium of instruction.

One aspect that I think the authors appear to have overlooked is a possible explanation for the preference for non-native speakers of English that they identified in teacher education colleges. In their future work, these students will probably be teaching in either Arabic or Hebrew, not English. As such, EMI can be expected to offer little of value for these trainee teachers. The prospect of being taught subject matter for school in English by a native speaker who may not understand the local education system/culture suggests a course that is disconnected from the reality these students will be facing in their day-to-day work. Any content these students might learn in such a course would need to be both translated (linguistically) and transformed (pedagogically) for use in schools. This emphasises the situatedness of EMI – what may be deemed excellent practice in one setting may be viewed as unhelpful in another.

Following on from the Israeli study, Kuteeva also examined students' native speaker expectations. There is a widely-accepted view in research circles that monolingual, native speaker standards in EMI courses should be abandoned in favour of translanguaging and English as a lingua franca (ELF). Here, Kuteeva notes that there have been very few studies of the views of students on this issue. In her study, she interviewed a small sample of five Swedish students about their conceptions of English in their EMI programme. She found that despite research showing the suitability of ELF for student learning, students nevertheless saw certain varieties of native speaker English as more prestigious. I found it interesting that the generally accepted shift away from native-speaker norms in the

research community appears to be neither understood nor valued in the same way by student stakeholders. Whilst ELF is clearly a useful functional language form, there may still be strong preferences among non-native speakers for language competence similar to certain native speaker norms. Students not only assigned different values to different forms of English – in this study British English was seen as the most prestigious – they also expressed a need for some sort of agreed, standardised language for exams and in particular hand-in tasks where students from different linguistic backgrounds collaborate. In such situations, one can understand students who might feel exasperated with an EMI teacher who insists that clear communication of any kind is more important than any particular language model. In the literature, translanguaging is often framed as a useful practice for teachers and students. In this study, however, translanguaging was reported as functioning as a means for elite translinguals to exert power over their fellow students who may not have access to the same linguistic resources. This is an important finding and food for thought for any EMI teacher.

In their contribution to the special issue, Dafouz, Haines and Pagèze discuss the work of educational developers with respect to internationalisation. They point out that whilst EMI has expanded rapidly, support for those involved has lagged behind. Addressing this issue was the main goal of the Erasmus+ project Educational Quality at Universities for Inclusive International Education (EQUiiP). The project has developed five modules for use in the training of educational developers. One of the modules deals with the role of language (English) in teaching and learning. The main issue highlighted by the authors is that support – when it does exist – has up to now focused almost exclusively on language proficiency, neglecting other pedagogical aspects. This echoes the early EMI recommendations of Klaassen (2001, 176) who suggested a TOEFL 580 threshold above which *pedagogical* rather than language training would be a more worthwhile for EMI lecturers. Interestingly, this language/pedagogy split can also be seen in the profiles of the educational developers in the project, where the British, Danish and Dutch developers had backgrounds in education, whilst those in France, Germany and Spain had backgrounds in language training. In explaining this division, the authors note that EMI may not yet be seen as mainstream in France, Germany and Spain and thus language support could be seen as more important in those settings. Given the focus of this special issue, perhaps the most surprising aspect of this interesting international study is the lack of any real EMI findings or proposals. The paper is clearly about internationalisation and a course of professional development modules for educational developers. In this respect, I might have expected to read this paper in a journal such as *Studies in Higher Education* rather than a special issue dealing with EMI in the *International Journal of Bilingual Education and Bilingualism*.

Macaro starts out with a simple but extremely important question for EMI: can theories of second language acquisition be transferred to content learning classes? The main thrust of Macaro's argument is that EMI research is dominated by applied linguists and there is, therefore, a risk that theories pertaining to language learning are introduced to EMI in an unproblematised manner. This risk arises because the goals of an EMI classroom are quite different to the goals of a language classroom. Macaro demonstrates the potential issues by presenting a few simple cases. Take teacher talk for example. Often linguists will claim that students need to practice the target language – thus the less the teacher talks the better. On the other hand, content lecturers are experts in disciplinary discourse and often the only models that students have of this discourse, thus one could also argue for *more* teacher talk. Then there is vocabulary. Here again, Macaro demonstrates the very different issues that can arise in vocabulary learning in EMI settings. Macaro also addresses the vogue for translanguaging, pointing out the difficulties of implementing this in an EMI setting.

Despite his scepticism to the general applicability of linguistic theory, Macaro finishes by suggesting that EMI lecturers may well need to learn some applied linguistics. This he points out would take time, time that the content lecturer may not have. Whilst I am generally in agreement with Macaro's sentiments, I think the suggestion that content lecturers might benefit from developing linguistic skills is somewhat impractical. It is difficult enough to convince content lecturers that they need to develop pedagogical content knowledge in their L1 teaching. To suggest that lecturers also need to learn some applied linguistics seems pretty far-fetched. Imagine, if you will, that the 'boot was on the

other foot' and physicists were suggesting that language teachers needed to learn fluid dynamics in order to teach physics students English for academic purposes! But, as I said, I am in broad agreement with Macaro's ideas. At the end of this article, I make some suggestions about how content lecturers might be enticed to spend at least some time reflecting on linguistic goals for their students.

Helm, examined the relationships between internationalisation, professional development digital technologies and EMI. To do this she looked at two types of technology enhanced education – MOOCs and online collaboration between students in different geographical locations, so-called virtual exchange. In both of these instances, English is often seen as the natural language to use, thus EMI becomes a default choice. Helm demonstrates how EMI and digital technologies often lead to a one-size-fits-all approach, where Western universities benefit from their spread of knowledge around the globe at the expense of local forms of knowledge. Helm suggests that this state of affairs is far from a given outcome. There is the potential, she argues, for technology to facilitate *exchange* of knowledge between culturally diverse areas. In terms of professional development Helm argues that locally-sourced solutions are seen as more relevant than global solutions. Here virtual exchange is put forward as a possible candidate for more equitable courses. In this arrangement, knowledge is co-constructed by educators and course participants who are located in different geographical contexts.

Having summarised the six articles, I will now move on to a discussion of how we can potentially get content lecturers to reflect on their linguistic goals for their students.

EMI and the content lecturer

Recently there has been a great deal of debate about the definition of EMI. This debate is referred to in some of the papers in this special issue (see for example, Macaro). I myself have been part of this development to some extent, attempting to map out the boundaries between EMI, EAP and CLIL (Airey 2016). Essentially, this interest in defining EMI can be interpreted in terms of the linguistic community attempting to reach a consensus in terms of what does and does not constitute an EMI context. Whilst such definitions offer sensible delimitation for linguists, I suggest that in one sense they may, in fact, be unintentionally counterproductive in educational terms. This is because these definitions – and indeed the very term EMI – all suggest that there is something very special about teaching and learning in a second language. At the most basic level, I do not believe this is the case. One of the earliest conclusions from my own work is that EMI – however, one defines it – simply exacerbates communicative issues that already exist in monolingual L1 settings (Airey and Linder 2006). The problem is that content lecturers tend to underestimate the role of languages and other semiotic resources in the teaching and learning of their discipline. In the words of Halliday and Martin (1993, 8):

> Language is not passively reflecting some pre-existing conceptual structure, on the contrary, it is actively engaged in bringing such structures into being.

Disciplines have their own specialist discourses that students need to master. In this respect, I have claimed that all content lecturers are language lecturers, even in monolingual L1 settings (Airey 2012). In my dealings with physics lecturers, I struggle to convince them that they should view themselves as teachers of disciplinary discourse. However, for content lecturers, content is king. EMI is simply seen as a pragmatic means to a content-related end. In such situations, it is not surprising that content lecturers have been reported as insisting that they do not teach language (Airey 2012). In my experience, content lecturers tend not to see language or other semiotic resource systems as problematic until they are forced to deal with a second language in some constellation (for example, when teaching on an international master programme or dealing with a single Erasmus exchange student in a class of home students). Then, I believe there is a window of opportunity that can be leveraged to get content lecturers to reflect on the linguistic goals they have for their students. To do this, I appeal to the concept of *disciplinary literacy*.
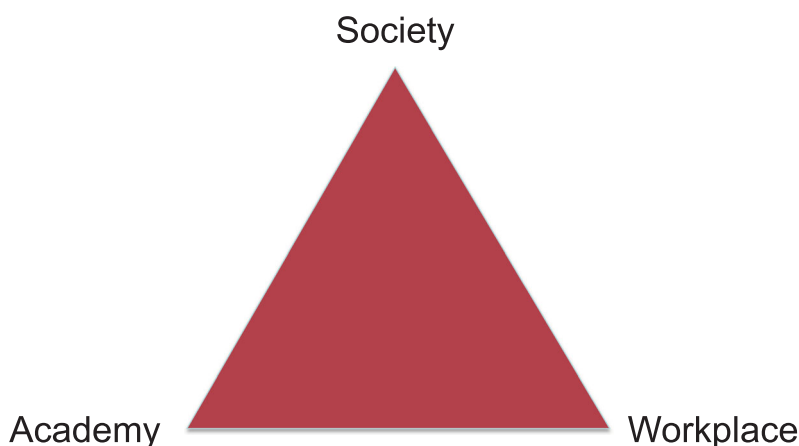
Figure 1. The disciplinary literacy triangle (Airey 2011). Disciplinary literacy entails developing communicative competence for three specific sites: society, the workplace and the academy.

Disciplinary literacy

I suggest that the role of content lecturers is to create disciplinary literate graduates. Here, I conceptualise disciplinary literacy as

> The ability to appropriately participate in the communicative practices of a discipline. (Airey 2011, 3)

I further suggest that disciplinary literacy is developed for three sites: Academy, Society and Workplace. This relationship can be visualised using the disciplinary literacy triangle (Figure 1). The positioning of a given discipline within the triangle is dependent on the relative emphasis placed on developing communicative competence for each of the three settings.

Different disciplines emphasise the development of disciplinary literacy for different sites. Physicists, for example, often position their disciplinary literacy goals firmly within the academy – placing them in the bottom left-hand corner of the triangle. One can imagine that lecturers in other disciplines will probably have quite different priorities. Nursing lecturers might well position their goals along the society/workplace edge of the triangle, whereas the lack of a defined workplace for historians might encourage history lecturers to choose the academy/society edge of the triangle. In my dealings with engineers, however, lecturers tend to place their discipline in the centre of the diagram emphasising the importance of all three sites. See (Airey and Larsson 2018) for a discussion of the potential clash of disciplinary literacy goals when physics students train to become teachers.

When it comes to EMI, it is unlikely that students will need to do exactly the same things in both English and the local language(s). Here, we can envisage different disciplinary literacy triangles for the different languages present in the society as a whole (see Figure 2.)

Operationalising disciplinary literacy

In my work with physics lecturers, I have used a Disciplinary Literacy Discussion Matrix (Figure 3) to initiate a dialogue about the different disciplinary literacy goals that lecturers have for their students. The matrix has columns for each of the three sites – academy, workplace and society, whilst languages and other semiotic resource systems are listed down the left-hand side. Lecturers tick the cells they think their students need and the filled in matrix then forms the basis of a discussion about their disciplinary literacy goals. Here, Jacobs (2007) has claimed that language lecturers can
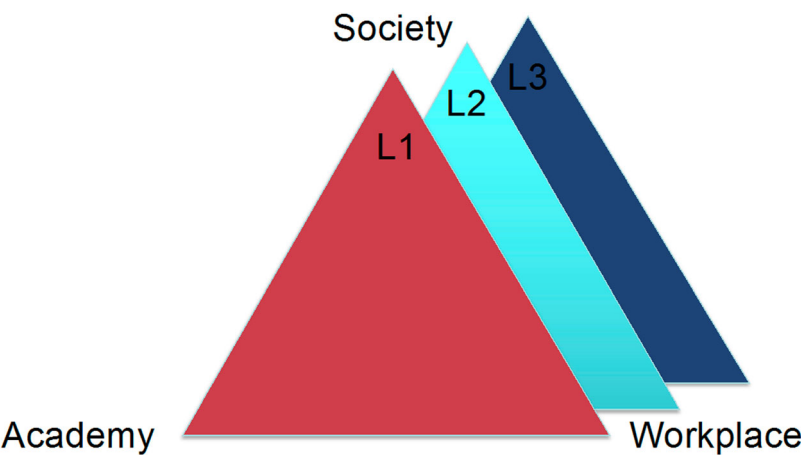
Figure 2. Each language has its own disciplinary literacy triangle. Students will usually be expected to be able to perform different functions in different languages.

help content lecturers uncover the tacit rules that govern their disciplinary discourse by asking the type of questions a novice would.

I have had some success in using this matrix with physics lecturers. Below is a quote from one such lecturer at the end of a session with the matrix:

> Something like this shows you huge gaps in what you do that you don't think about how you teach at all – you know having an interview like this – and you suddenly think 'I never thought of that'. (Head of a university physics department)

Figure 3. The disciplinary literacy discussion matrix (Airey 2011). Content lecturers tick those cells they believe students need to master with for their course. Each cell of the matrix is then discussed in turn (including those cells lecturers left unchecked).

Where next for EMI?

Given the wide range of interests reflected in this special issue, the future for EMI looks promising. There is much to do. However, there is only so far one can go as a linguist before running into issues that require disciplinary expertise. If linguists wish to remain relevant and continue to gain access to EMI contexts then they will need to take the interests of content lecturers into account. We need these content lecturers to take language seriously and for this to happen the topics we choose to research need to be seen as relevant – that is, they need to be driven by disciplinary rather than linguistic interests.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributor

John Airey is a Senior Lecturer in Science Education and a Reader in Physics Education. His research interests focus on disciplinary learning and its relationship to language and other semiotic resources.

References

Airey, J. 2011. "The Disciplinary Literacy Discussion Matrix: A Heuristic Tool for Initiating Collaboration in Higher Education." *Across the Disciplines* 8 (3). https://wac.colostate.edu/docs/atd/clil/airey.cfm.

Airey, J. 2012. "I Don't Teach Language." The Linguistic Attitudes of Physics Lecturers in Sweden." *AILA Review* 25: 64–79.

Airey, J. 2016. "EAP, EMI or CLIL?". In *The Routledge Handbook of English for Academic Purposes*, edited by K. Hyland and P. Shaw, 71–83. London: Routledge.

Airey, J., and J. Larsson. 2018. "Developing Students' Disciplinary Literacy? The Case of University Physics." In *Global Developments in Literacy Research for Science Education*, edited by K.-S. Tang and K. Danielsson, 357–376. Cham: Springer.

Airey, J., and C. Linder. 2006. "Language and the Experience of Learning University Physics in Sweden." *European Journal of Physics* 27 (3): 553–560.

Airey, J., and C. Linder. 2017. "Social Semiotics in University Physics Education." In *Multiple Representations in Physics Education*, edited by D. F. Treagust, R. Duit, and H. E. Fischer, 95–122. Cham: Springer.

Halliday, M. A. K. 1978. *Language as a Social Semiotic: The Social Interpretation of Language and Meaning*. London: Arnold.

Halliday, M. A. K., and J. R. Martin. 1993. *Writing Science: Literacy and Discursive Power*. London: The Falmer Press.

Hodge, R., and G. Kress. 1988. *Social Semiotics*. Cambridge: Polity.Jacobs, C. 2007. "Towards a Critical Understanding of the Teaching of Discipline-Specific Academic Literacies: Making the Tacit Explicit." *Journal of Education* 41: 59–81.

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.