

English Medium Instruction: Time to start asking some difficult questions

Ernesto Macaro considers some of the implications of this growing global phenomenon.

There is now irrefutable evidence that the world is experiencing a rapid increase in the teaching of academic subjects through the medium of English in countries where the first language of the majority of the population is not English. English Medium Instruction (EMI) is a growing global phenomenon taking place primarily in tertiary education. However, it is also already being established as a potential engine for change in the secondary sector and is not escaping the attention of those concerned with the primary sector.

In Europe reliable estimates put the number of postgraduate courses currently being delivered through EMI at over 60%. Its introduction and expansion has been so pervasive and precipitous that it has led to controversies in the national media (France) and outright legal action to attempt to curtail its growth (Italy).

In the non-anglophone world more generally a recent 55 country survey¹ found that in both the tertiary and secondary phases of education the trend was for an increase in EMI courses, with the private education sector leading the way and the public sector being forced to 'play catch up'.



So why this increase and why particularly should it have accelerated so rapidly in recent years?

Of course we can easily refer to the current position of English as a global language and its deployment as a *lingua franca*. We can cite quite astonishing educational statistics: billions learning English as a foreign language (EFL) in primary and secondary; hundreds of millions studying EFL in universities alongside their chosen academic

subject; an EFL teacher supply side running into the tens of millions; countless millions of students of all ages studying in Anglophone countries whether on short stay residential or on undergraduate or postgraduate courses.

These figures, colossal as they are, do not however entirely explain the rapidly growing phenomenon of EMI. Why are governments, educational policy makers and university principals driving this aspect of the educational

agenda and particularly in recent years? Why is it that EFL or 'general English' is no longer seen as sufficient to ensure a country's national competence in English? Is it the case that, what Keith Harding (in this journal, October 2014) calls, 'Teaching English for No Obvious Reason', plus the learning of English for very obvious and carefully targeted reasons (English for Academic Purposes, English for Specific Purposes, English for Examination Purposes), is still not enough to satisfy national demands for English competence? Why should it be necessary to additionally teach, say, geography or biology through the medium of a language that is not the first language (L1) of the learners?

There is no definitive piece of research that will give us the answer to these questions. However, the recently established EMI Oxford Centre² at the University of Oxford, has as its mission to, among other things, begin to find answers to them. It carried out the 55 country survey (above) and has additionally conducted interviews with university teachers in a number of countries to try to establish the driving forces behind EMI and its potential consequences. The insights that we have gathered thus far are that EMI is being introduced at the tertiary level (and potentially supplanting EFL) for a number of reasons which we will now consider in some detail alongside the implications and potential challenges.

Why EMI?

Globally, 4.5 million students study outside their country of citizenship³ and it is estimated that the number of internationally mobile students could reach 7 million by 2020⁴. There is consequently an unshakeable belief held by university managers that their institution has to 'internationalise' in order to progress in the world rankings or, at the very least, to survive financially. In order to become an international university the institution has to attract students from other countries, countries which do not speak the language of the host country, and therefore the language of instruction has to be the only one that all students will (in theory) understand.

In order to internationalise, the institution has also to demonstrate that its teaching and research force, its faculty, is multinational, presupposing that multinational is synonymous with better quality than mono-national. Neither of these market-forces driven tendencies are proven by research evidence. There is as yet no conclusive evidence that internationalising student intake raises learning achievement any more than internationalising the faculty raises the quality of teaching and research. It may do so for some universities but, as is always the case with market-forces, through which there are winners and losers, it almost certainly does not do so for all universities.

There is a growing belief that learning an academic subject through EMI will enhance or facilitate the learning of that subject by the home students. The argument is put forward with particular emphasis in the sciences where it is claimed (almost certainly correctly) that the majority of important and influential research is published through the medium of English. Thus if the students are reading large quantities of material in English for their course then the oral input and interaction in the classroom or the lecture room should be in English – and, as a consequence, so should the assessment system be in English. This shift to EMI therefore presupposes that English for Academic Purposes courses in the home country are not sufficient to enable the students to read and (possibly) write in English. Again, the evidence for this presupposition is not easily accumulated. It also presupposes that the input and interaction carried out in English as an L2, in a science classroom or lecture room, is of sufficient quality to assure sound learning – more of this in a moment. The centripetal effect of EMI on the language of publishing in specific subjects is also not to be ignored. If an entire science course (comprising reading material, classroom interaction and written assessment) is now in English, how long will it be before home country publishers stop publishing completely science material in the home language – and for primary and secondary as well as tertiary? Lastly, in the case of subjects which have a clear vocational trajectory, is it the case that

the best (or the most comprehensive) learning will take place in the global language rather than the local one? Take the case of medicine. Whilst it is beyond doubt that would-be doctors have to read much academic material published in English, the majority are likely to be practising their profession with 'home patients' who will undoubtedly want to hear explanations of, and resolutions to their ailments, in the home language.

Linked to the above argument regarding home students is a belief that without EMI provision on their undergraduate programme the home students will not be able to compete in a world market in the long term, or operate effectively in the short term should they wish to undertake postgraduate study in another country where the medium of instruction is English (either an Anglophone or non-Anglophone country). At face value this would seem to have some mileage in that the transition, from undergraduate to postgraduate level, to world of work, would be facilitated. However, there are questions to be asked about the reliability of the exit qualification/competence in English from an EMI undergraduate course. Currently for entry to postgraduate education in many Anglophone countries there are two widely used linguistic measurements: an international qualification such as the IELTS or an institutionally justified 'language waiver'. Both have their problems. Firstly, some would question whether the IELTS is sufficiently academically oriented to be able to confidently predict success on a postgraduate course⁵. If not, then this would suggest that having successfully graduated from an EMI undergraduate course might be the better predictor of sufficient proficiency at postgraduate level than the IELTS. On the other hand, variability on EMI undergraduate courses might be considerable. To my knowledge there is currently no language benchmark for EMI undergraduate courses – you simply get your degree in the subject and a grade average. Moreover, the receiving institution has no information about the applicant's English language proficiency at the start of the undergraduate EMI course, little knowledge of the

amount of input and interaction that the EMI course had actually delivered through English (we have anecdotal evidence that not all EMI courses are taught through English!) and little or no information about how English proficiency at exit is established.

Also linked to the issue of benefits to home students, is what happens when the class increasingly has an intake of students with other L1s; here we have at least three possible scenarios. First, if the latter are few in number then there may be a temptation (possibly justified) for the teacher to provide some small amounts of information in the L1 of the home language students, to the detriment of international students who do not share that L1. Second, if the international students are in the majority, then the teacher clearly would find it hard to justify information in the L1 of the home students, and would moreover have to be both pedagogically expert and linguistically highly competent to cater for the needs of all students as well as maintain English-only input and interaction. Third, if internationalisation takes off to the extent (as is indeed already happening in China) that English L1 students are present in an EMI class where nevertheless the majority of students speak the home language, then the teacher is faced with the question of who to cater for: all students? And if not all students, what rationale could they use to address the needs of some and not all; that the international students might be bringing in more cash than the home students? Thus who benefits in EMI classes is an important aspect to explore and to continue to explore as EMI provision develops.

Another argument put forward in favour of EMI is that it is an authentic way to learn a language and more authentic than EFL with its concentration on topics and situations (e.g. travelling abroad, socializing), situations which may or may not be encountered in reality. Second language educators have been struggling for decades to decide what is authentic and what is not authentic in terms of language teaching, which are authentic materials for the classroom and which are not. Surely then, learning an academic subject through EMI is

“To my knowledge there is currently no language benchmark for EMI undergraduate courses – you simply get your degree in the subject and a grade average.”

an authentic way to learn a language? The reading material is ‘authentic’ in the sense that it is not ‘doctored’ for the language learner market; the classroom tasks are ‘authentic’ in that they are there to help the learner acquire precisely the knowledge, understanding and skills needed for that subject. Surely the learner will be motivated to learn through English an academic subject they want to learn whilst improving their English at the same time? This is of course one of the main CLIL (Content and Language Integrated Learning) arguments and the ‘integration’ is embedded in its title – unlike EMI. CLIL openly declares its educational intentions even if the evidence thus far does not wholeheartedly demonstrate that those intentions have been fulfilled. EMI does not declare its intentions – it simply describes the vehicle of delivery of the academic subject and improved language proficiency may be a bi-product rather than an actual goal. Now it may be that an EMI teacher of physics walks into his/her classroom thinking ‘I must improve my students’ speaking skills in English’ – but we just do not know that unless we ask them and importantly then monitor their lesson. As one of the respondents in our interviews admitted:

‘I’m not interested in their English, I’m interested in their comprehension of micro-biogenetics’

The last of the ‘why EMI?’ arguments that I want to explore is the pedagogy one and this clearly links to the difference between CLIL (as it is intended to be taught) and EMI. Any learning situation which involves the understanding of academic content through the medium of a second language must surely involve consideration of the pedagogy that is being adopted by the teacher. Of course this is true of learning through a first language too – any science or mathematics teacher will tell you that you have to think about the way you use language even with a first language class so that they will understand the concepts being taught. However, the big difference is in the level of proficiency and particularly the level of vocabulary knowledge. In the first language class the percentage of new vocabulary being introduced in any lesson is relatively small and usually consists of technical terms unfamiliar to the student (‘oxidization’, in chemistry) or terms which are used in different ways from everyday language (e.g. ‘function’ in mathematics). The rest of the language, the language the teacher uses to explain the concept, should be largely known to the students. This is usually not the case for the EMI student. They will be faced with a relatively large number of lexical items which will be unfamiliar or unknown to them as the teacher speaks. As most EFL teachers will tell you, not only the new word being explained in the L2 will be unknown but also the language used in the explanation will not always be known to the students, or at least some of the students – hence the ‘concept check’. However, checking the understanding of a concept has a quite different meaning in an EFL class to an EMI class. Checking that students have understood the meaning of ‘force eight gale’ (in an ELT class, explained by a short paraphrase) and ‘the force at the point of the fulcrum’ (in a physics class, explained by a long exposition) takes on a quite different character. Given the reduced linguistic knowledge in an EMI class, a different pedagogical approach is needed to explain ‘force’ in a physics class conducted in L1 as opposed to L2. So the point I am trying to make here is that one of the arguments often put forward for EMI (and for that matter CLIL) is that the pedagogy

has to become much more learner-centred, in the sense that the teacher or lecturer has to be much more aware of the students' linguistic limitations. It certainly has to become more interactive ensuring similar types of 'meaning negotiation techniques' that ELT teachers are so accustomed to adopting. Some commentators have argued that changing higher education pedagogy in Europe to make it become less 'professor-centred' is as much part of the Bologna Declaration⁶ as harmonising the Higher Education of the European Union.

Challenges facing EMI

The issues and challenges facing any institution adopting EMI are considerable as I have tried to indicate above. Nevertheless my understanding of the current situation is that it is an unstoppable train. Better therefore that we do everything we can to keep it on the rails and allow its passengers to reach their destination safely than try to block its progress. To ensure even its limited success I believe that we have to start asking some very difficult questions rather than brushing them under the carpet or as I have tried to illustrate graphically elsewhere, by educationalists burying their heads in the sand like ostriches. I believe that in order to then answer those difficult questions we have to undertake quality research involving all stake-holders (teachers, students, parents, policy makers, the world of business) associated with the education venture. The difficult (and here elaborated) questions that research should try to answer are:

Of the current different ways of introducing EMI provision, which are the most effective? For example some countries have a transitional (or preparatory year) in between secondary and tertiary EMI education. Is this more effective than providing intensive support during the EMI years, with some sort of adaptation of an EAP programme? A third alternative structure operating in some countries is selection by English language proficiency. Is this alternative creating an unacceptable elite form of education based on the ability to pay for private English language tutoring?

Are there some academic subjects which lend themselves more to EMI than others or, alternatively, that need fewer resources to overcome the challenges that teaching through EMI brings? Linked to this question is whether some academic subjects might be introduced earlier than others.

What levels of English language proficiency enable EMI teachers to ensure that they teach at least as effectively as through their first language? What genre of language should they be assessed in to ascertain whether they are competent to teach their subject? Our investigations to date suggest that rather than the technical language of their subject, it is the day to day English that some EMI teachers lack and the classroom language to effectively set up tasks, provide meaningful explanations, interact with their students, and generally make their lessons interesting. Research needs to establish whether interaction changes as a result of introducing EMI – does the teaching become less or more interactive? Current research suggests that it becomes less interactive⁷.

How would we actually measure the success of an EMI initiative in a university? Would we want to examine the depth of learning of the academic subject? Would we want to measure at different time points the impact the EMI was having on the English proficiency of the students? Would it then be fair to compare that progress with EFL provision? And would we expect there to be differential benefits to home students as opposed to international students? In general do language assessment systems have to change as a result of learning through EMI as opposed to EFL?

What are the teacher training and professional development implications resulting from the introduction of EMI? Our 55 country survey suggests there is little or no EMI-specific content in teacher preparation courses. Might the best form of teacher development come from collaborating in lesson planning with an expert EFL teacher and, indeed, what might eventually become the role and status of the EFL teacher when the

majority of courses in a university or a high school are being taught by content teachers through the medium of English?

I am aware that I have raised more questions than given answers but given that EMI is such a rapidly developing phenomenon, and the implications are so numerous, then these questions urgently need to be explored otherwise we will experience yet another top-down initiative introduced without adequate preparation and without adequate resources.

References

- 1 Dearden, J. (2014) English as medium of instruction – a growing global phenomenon (Interim Report). The British Council. http://www.britishcouncil.org/sites/britishcouncil.uk2/files/english_as_a_medium_of_instruction.pdf
- 2 Centre for Research and Development in English Medium Instruction, <http://www.education.ox.ac.uk/research/applied-linguistics/emii/>
- 3 UNESCO Institute for Statistics, <http://data.uis.unesco.org/index.aspx?queryid=163&lang=en>
- 4 Altbach, P.G., Reisberg, L., & Rumbley, L. (2009) *Trends in Global Higher Education: Tracking an Academic Revolution* (A Report Prepared for the UNESCO 2009 World Conference on Higher Education).
- 5 See: Henneby, M., Lo, Y.Y. & Macaro, E. (2012) Differing perspectives of non-native speaker students' linguistic experiences on higher degree courses. *Oxford Review of Education*, 38/2, 209–230.
- 6 See: http://www.magna-charta.org/resources/files/BOLOGNA_DECLARATION.pdf
- 7 Lo, Y.Y. and Macaro E. (2012). The medium of instruction and classroom interaction: evidence from Hong Kong secondary schools. *International Journal of Bilingual Education and Bilingualism*, 15, 1, 29–52.



Ernesto Macaro is Professor of Applied Linguistics and Director of the Centre for Research and Development in English Medium Instruction, University of Oxford.