

Challenges and needs of students in the EMI (English as a medium of instruction) classroom

Merve Yıldız

Sakarya University, Turkey
merveyildiz@sakarya.edu.tr

Adem Soruç

Sakarya University, Turkey
adamsoruc@gmail.com

Carol Griffiths

Auckland Institute of Studies, Auckland, New Zealand
carolgriffiths5@gmail.com

Abstract

Although English as a medium of instruction (EMI) has grown exponentially in recent years, many perceived needs and challenges remain unaddressed. The present study investigated what kinds of challenges students experience when trying to study in an EMI context, and how they view their needs, gathering qualitative data from open-ended questions. The participants were attending one private and two state universities in Turkey. The students (N = 83, from 5 different departments, studying from freshman to senior levels) described various challenges and needs in their responses, including challenges with understanding technical vocabulary, lecturers' inadequate use of English, code switching, the English preparatory-year curriculum, English language skills and the lack of language support in EMI programs. Results are discussed, suggestions made for further research, and implications for the teaching and learning context are suggested.

Keywords: higher education; English as medium of instruction; EMI; challenges; needs

1. Introduction

EMI (English-medium instruction) is defined by Dearden and Macaro (2016) as providing instruction in English in contexts where English is not the language commonly spoken. Although there are some who lament the spread of English as a form of “linguistic imperialism” (e.g., Canagarajah, 1999; Phillipson, 1992), the demand for EMI seems to have spread throughout the world, including Europe (e.g., Aguilar, 2015; Dearden & Macaro, 2016), the Middle East (e.g., Belhiah & Elhami, 2015; Inan, Yuksel & Gurkan, 2012), Asia (e.g., Byun, Chu, Kim, Park, Kim & Jung, 2011; Chapple, 2015; Lei & Hu, 2014) and Africa (e.g., Viriri & Viriri, 2013). When Dearden (2014) invited one British Council representative from each of 55 countries to report public opinions of EMI in their home countries, the results indicated that although the public does not support EMI “wholeheartedly” (p. 2), there has been a rapid increase in the number of EMI institutions in those countries. Reasons given for this spread vary, but in the United Arab Emirates (UAE), Rogier (2012) concluded that „EMI (...) is necessary for students to be able to compete in a global world” (p. 122), while according to Dearden and Macaro (2016), two of the most prominent reasons relate to the desire for international status and the desire to attract the revenue associated with international students.

But these benefits are accompanied by substantial challenges, perhaps the most notable of which relates to students’ language proficiency, as Belhiah and Elhami (2015) report. After all, they need to read materials, listen to lectures, and write often lengthy essays or theses in what they originally learned as a foreign language (English) in a context where there is no intention to give further instruction on the language itself. This is quite a daunting task, given that just learning the course content itself at the university level can be quite challenging (Hellekjær, 2010; Mulligan & Kirkpatrick, 2000; Smit, 2008). Indeed, operating at a high academic level can be challenging even for native speakers of a language, so it should not be considered surprising that those who are trying to do it in a language other than their first (L1) often do not find it easy. In addition, the English level of teachers (who may be specialists in subjects other than English, such as science, maths, medicine, engineering, or other languages) is also often problematic (e.g., Byun et al., 2011).

2. Previous research

A review of the literature reveals that English as a medium of instruction (EMI) is a relatively new phenomenon. In their systematic review, Macaro, Curle, Pun, An and Dearden (2018) found only one EMI study from before the year 2000: a

doctoral thesis by Vinke (1995), who found that lecture comprehension was significantly lower for students taught using EMI compared with those who were taught in their own language. As early as the turn of the millennium, concern was being expressed about the effect of EMI on the L1 (termed *linguistic genocide*, Skutnabb-Kangas, 2000), and the impact of EMI on non-native course lecturers was discussed by Klaassen and De Graaff (2001). As a result of a study conducted in Hong Kong, Hoare (2003) emphasized the need for teachers to have language awareness as well as subject knowledge. Kırkgöz's (2005) study of 203 university students found "detrimental effects of learning subjects through another language such as a feeling of being distanced from their native language and culture" (p. 101). Kılıçkaya (2006) compared 100 lecturers' approaches to EMI and Turkish-medium instruction (TMI), finding that they supported the adoption of their L1 as an instructional medium. When Sert (2008) surveyed 527 fourth-year students and 87 teaching staff, asking them to evaluate EMI and TMI, the study concluded that "EMI fails to provide the academic content effectively" (p. 156).

Publication on the subject of EMI has increased considerably in the current decade. Taşkıran (2010), for instance, examined 158 preparatory-year students and found that 58% of them considered their language proficiency inadequate. In Korea, Byun et al. (2011) argued that EMI serves as „a major instrument for innovation in terms of internationalization" (p. 432), despite the growing concern that EMI may hinder acquisition of the subject matter. Evans and Morrison (2011) conducted a study involving 3,009 students in Hong Kong, finding that EMI students encountered a range of challenges, including „understanding technical vocabulary, comprehending lectures, achieving an appropriate academic style and meeting institutional and disciplinary requirements" (p. 198). When Kırkgöz (2013) explored 151 first-year and final-year students' perceptions regarding EMI, the results showed that both groups of students viewed EMI as „an obstacle to learning disciplinary knowledge" (p. 36) and to understanding their lectures. Similarly, Coşkun, Köksal, and Tuğlu's (2014) study involving 90 pre-service teachers from three language teaching departments (Turkish, English and German) revealed that the participants achieved higher comprehension scores at the levels of both basic and deep understanding of a reading text when they received it in Turkish rather than in their foreign languages. Kırkgöz (2014) conducted a systematic comparative study of 130 final-year undergraduate engineering students (66 TMI and 64 EMI) at a Turkish institution of higher education, seeking their perceptions of the two modes of instruction; the results indicated that TMI students gained academic knowledge more easily, learned in a more detailed way, and were more likely to sustain the learned information. At Alfred Nobel University in Ukraine, Tarnopolsky and

Goodman (2014) found that the participants considered continuing to use their mother tongue important, especially „for the purposes of aiding comprehension” (p. 393). Belhiah and Elhami (2015, p. 3) described the current EMI situation in the UAE as „leaving much to be desired with students struggling to learn the subject matter due to their low proficiency in English”. Huang (2015), at the Southern Taiwan University of Science and Technology, found that many students were eager to take EMI courses, but that they also felt anxious because of their low level of English proficiency. And when Soruç and Griffiths (2018) investigated EMI students’ difficulties and strategies at a Turkish university, the results showed that although the students used a variety of cognitive and metacognitive strategies to cope with their difficulties during lectures, they had few strategies to manage their emotional reactions, such as shyness and embarrassment, or speaking strategies when they struggled with „being able to produce what I want to say” (p. 9).

From the studies described above, it is apparent that there exist many challenges with regard to the implementation of EMI programs, and most of the conclusions are negative with regard to the effects of EMI. One of the few to conclude on a partially positive note is Collins (2010), who investigated the attitudes towards EMI of 1,011 Turkish students and 117 instructors at a private university. Although students reported feeling “disadvantaged during their college years, due to a self-perceived low language proficiency” (p. 97), both students and teachers believed that EMI had great potential once the system is improved. Given that EMI continues to be widespread (e.g., Dearden & Macaro, 2016) in spite of the multiple problems noted in the literature above, it would seem that there is a clear need for research to investigate EMI students’ perceived difficulties and needs when attempting to complete courses in classes where English is the medium of instruction. The research questions for this study were therefore as follows:

1. What are the challenges faced by students in the EMI classroom?
2. How do students view their needs in order to study successfully in an EMI environment?

3. Methodology

3.1. Setting and participants

This study was conducted using a convenience sampling method to recruit participants at three higher education institutions (2 state and 1 private) offering EMI in Turkey. A total of 83 students (46 male and 37 female) from all levels of study (i.e., freshman, sophomore, junior and senior) participated. Their ages

ranged from 18 to 23 (average = 20). The participants were recruited from five academic departments: business administration ($N = 33$), international trade ($N = 10$), political science and international relations ($N = 6$), electrical electronics engineering ($N = 21$), civil engineering ($N = 9$) and industrial engineering ($N = 4$), with permission from the relevant university authorities. After the main aim of the study was explained to the students, confidentiality was assured and participation was described as voluntary, the students were asked to sign a consent form indicating their agreement to participate and concurring that their results may be used for research purposes and possible publication. All the students agreed and signed.

3.2. Data collection instrument

The data collection instrument was an open-ended questionnaire consisting of two main questions, asking the students to write:

- (1) what kinds of difficulties they experience in their EMI courses;
- (2) what support they need to follow their lectures.

Students were invited to respond in either Turkish (their mother tongue) or English, so that they would feel more comfortable when responding to the items.

3.3. Data analyses

For the initial step, after some statements written in the students' mother tongue were translated into English, all the statements were listed to facilitate exploration of salient common themes. There were 167 statements related to challenges and 152 about needs.

In the second step of the analysis, the authors consolidated the salient themes around central concepts. At this stage, the first author initially identified eight themes to describe the students' challenges. By negotiation between the authors, the set was reduced to six concepts, representing a 75% level of inter-rater reliability:

- difficulties related to technical terms or vocabulary;
- lecturer language;
- L1 use/frequent code-switching;
- inadequate preparatory-year program;
- listening and speaking;
- listening and writing.

With regard to students' needs, the authors identified the following six topics:

- learning vocabulary;
- lecturers' proficiency in English;
- consistent and regular use of English in lectures;
- adequate English preparatory-year curriculum;
- ongoing production-based instruction;
- language support system.

As the themes and concepts regarding needs were quite clearly defined, it was not difficult to achieve a total agreement between the coders (100% inter-rater reliability).

4. Results

According to the analysis of the qualitative data, six main concepts were explored related to students' challenges in the EMI classroom, while another six themes emerged for their needs (numbered in brackets below). To keep something of the original voice, where possible, students' comments are provided verbatim, including occasional "infelicities".

4.1. Challenges

1. *Difficulty with technical terms in the lecture:* The students faced difficulties understanding the EMI course content when they did not know the necessary technical terms or academic vocabulary.

I had great difficulty understanding the differences between English business words and general English words.

I cannot grasp anything from the subject when I do not know the key word or term related to topic.

2. *Difficulty understanding lecturer language:* Lecturers' language proficiency caused hardship as well.

Taking an EMI course is sometimes difficult because some lecturers' English level is not enough to give EMI class. That's why some teachers give some classes as Turkish yet they ask questions as English.

I studied like two times harder than the normal to keep up with the lecturers. Sometimes it was caused by the instructor's level of English.

Main problem is that lecturers can not speak English very well. So, it creates a simplicity in courses because of using simple words instead of academic ones. This is really sad in this level of education, Universities.

3. *Difficulty following frequent and lengthy code-switching:* When the language of the lecture was not regular or, in other words, when lecturers used English or mother tongue inconsistently as the medium of instruction, students were confused.

During the EMI course when one of our friends asks a question in Turkish, the lecturer talks in the rest of the course for a long time in Turkish, rather than English, which makes it really hard for us.

A few of our lecturers cannot speak English well; it is a great nonsense that the lecturers teach in Turkish, but prepare exams in English.

Understanding the lectures are not problem for me. The problem is, some of our teachers suddenly switch their language from English to Turkish. So it disconnects me from the lecture and I cannot follow the rest of it once I disconnect.

4. *Difficulty following subject courses after prep year program:* Although many of the students had participated in a one-year English preparation program (which is compulsory unless they can demonstrate an already adequate level of English), many of them felt that such a course did not meet their needs, which further caused them to have difficulties following their subject courses in their major.

The English prep year program is not adequate for us to follow courses in EMI. I got it in the first grade when I started my major after the prep year program.

English Prep year curriculum or its coverage is not relevant to the level and coverage of English in our subject courses. We encounter great hardship with technical or discipline related words.

Although throughout the prep year program we were forced to a series of IELTS classes or exam-based education, and I completed the program successfully, I see now we did not do much in the prep year to survive in the subject courses.

Colloquial language taught at prep schools does not match with the academic language in EMI classes.

5. *Difficulty listening and speaking:* Students could not talk or express themselves comfortably; when they could not participate in discussions made in the EMI course, they lost their confidence.

I cannot say what I want to, so I feel isolated.

Sometimes when instructor speaks quickly, I cannot understand very well.

We don't join lecture. Because, I think I can't speak.

I feel shy or embarrassed enough when I can't pronounce words correctly.

6. *Difficulty listening and writing simultaneously:* Some students stated they could not listen to the lecture on the one hand and take notes on the other.

I can't listen when I am taking notes.

I can't catch up with the lecturer again when I miss the main point while taking notes.

Understanding the lecture is hard while taking notes.

4.2. Needs

Interestingly in a similar vein, the analysis of needs revealed that students' challenges in the EMI classroom were very similar to their perceived needs to keep up with the course in English. Put simply, what students reported about their perceived challenges was consistent with their needs. Students' needs were likewise consolidated around six main categories as given in brackets below:

1. *Learning technical vocabulary*: Students stated they needed to improve their vocabulary knowledge continuously.

You need a good word knowledge.

Because there is a lot of technical and theoretical information that you cannot understand if you have basic English skills.

It is hard to learn all of the terms and I can't understand the lessons without learning terms. And, teachers should explain the terms.

2. *Lecturers' proficient use of English*: As with the reported difficulty with understanding lecturer language, students argued that they needed both foreign lecturers and local instructors speaking English in the courses proficiently.

Some teachers need to improve their English level.

The school should hire EMI lecturers, who can teach such EMI courses.

I think departments should at least have two or three foreign subject lecturers.

Lecturers should pay attention to their knowledge of pronunciation; some lecturers' pronunciation is not intelligible.

3. *Regular use of English in the EMI course*: Students wanted their lecturers to use English consistently throughout the course.

It is important for lecturers to start and to complete their lecture in English, but it does not happen.

Our lecturers generally talk in Turkish more than English in an EMI classroom.

4. *English prep year curriculum*: Students stated they needed to improve all their skills in the prep year program to be able to keep up with EMI subject courses.

English prep year curriculum is weak and is not sufficient for me in my major. Speaking part must be given very well by preparatory teachers.

5. *Ongoing production-based instruction:* As with the demand for a kind of practice-based instruction at prep year program, students likewise wanted their subject teachers/EMI instructors to provide opportunities them to use their English in EMI courses by scheduling discussions and presentations more than that they usually did.

In an EMI course, we need more practice.

Our subject teachers should force or at least encourage us to speak English in the EMI classroom.

6. *Language support system:* students expressed a need for a curriculum specifically based on English for a specific academic purpose in an attempt to support their language level throughout four years.

We can take some classes for upgrade or support our skills.

English lessons should be sustained and even be compulsory when we are taking EMI courses.

Our language proficiency level should be improved and supported.

5. Discussion

EMI has been mushrooming within tertiary education in recent years, including in Turkey, where the current study took place. This study therefore investigated the challenges and needs of students (not majoring in English) at three higher education institutions. At the open coding stage, a total of 167 explicit statements describing challenges and 152 statements about needs were identified. The two groups of statements were both categorized around six axial themes.

Understanding technical terms is a well-recognized challenge among EMI students (e.g., Evans & Morrison, 2011; Sert, 2008; Kırkgöz, 2013), and lecturers' inadequate professional use of English has become widely recognized as one of the main factors producing negative outcomes in many EMI settings (e.g., Chang, 2010; Mellion, 2008). For instance, according to Ibrahim's (2001) review of the Indonesian context, lack of teacher proficiency posed a "threat", leading to communication breakdowns, loss of rapport and lack of discussion in the classroom. Manh's (2012) review study in Vietnam revealed that many of the lecturers lacked adequate oral skills, and according to Williams' (2015) review study of published articles and book chapters written since 2000, there is inadequate support for instructors' linguistic academic needs. Frequent code-switching

due to inadequate command of English is another difficulty noted by Kırkgöz (2014). Despite the recognized opportunities presented by EMI, such as internationalization (Macaro, 2015) or potential to share academic books and articles in English (Zare-ee & Gholami, 2013), such difficulties have resulted in some teachers having serious doubts about the benefits. For instance, Kim (2011) found that Korean instructors did not favor EMI as it hindered students' depth of learning or understanding, and they therefore supported the use of the mother tongue. According to Jensen and Thøgersen (2011), although young instructors in Denmark seemed to favor EMI, they still expressed concerns that it could present an obstacle for instructors when they attempt to transmit content knowledge.

As for needs, according to students' statements in the present study, development of an English preparatory-year program in view of EMI students' academic needs and their typical English language skills could yield positive outcomes in EMI contexts. Students suggest that the curriculum at the preparatory-year program should be more production-based; that is, it should promote speaking and writing about academic subjects. Kırkgöz (2007) also reported that students expressed the need for more challenging materials, more productive learning and more autonomy. Another theme that emerged from the qualitative analysis was that language support should be viewed as a basic need for EMI students, and indeed as a basic right. Support for EMI programs by the university authorities may not necessarily be only language-related; it could also be in the form of economic support to help the program to employ competent teaching staff (Doiz, Lasagabaster, & Sierra, 2012), teaching general English rather than or in addition to academic English to help EMI students gain general communication skills (Evans & Morrison, 2011), or assisting them in developing their oral presentation skills in English (Chang, 2010) and speaking strategies (Soruç & Griffiths, 2018).

6. Conclusion with implications and suggestions for further research

Although the challenges that EMI students face and what they need are apparent enough, their situation is often ignored. Based on the main findings of the present study, we propose a number of implications.

First, strategy training should be given to EMI students (e.g., Soruç, Dinler & Griffiths, 2018). For instance, students can be taught how to use language skills effectively (e.g. listening and taking notes simultaneously). In Chapple's (2015) study, students trained in learning strategies reported higher levels of satisfaction and greater feelings of improvement and self-confidence.

Second, as argued by earlier studies (e.g., Kırkgöz, 2009a; Karakaş, 2017), preparatory-year curricula should be revised to integrate a programme on English for specific academic purposes, to teach technical terms or vocabulary related to

EMI courses. According to Kırkgöz (2009a), because of the problems with an English for academic purposes (EAP) focused curriculum, an English for specific purposes (ESP) learning approach could be more appropriate as it encompasses a „discourse community driven philosophy” (p. 92). Put another way, an English for specific purposes (ESP) curriculum should be adopted for EMI programs, since „increasing access to ESP provision that is fine-tuned to the language issues in genuine EMI classrooms is crucial” (Jiang, Zhang, & May, 2016, p. 1). In addition, a collaboration between subject teachers and English instructors before and after lectures seems absolutely necessary. According to Macaro, Akıncioğlu and Dearden (2016), such a collaboration between subject teachers or lecturers and English instructors was found „highly beneficial” (p. 51). Perhaps, to facilitate this collaboration, as argued by Kırkgöz (2009b), “university teacher education programmes need to be revised and updated” (p. 680).

Finally, sustainable language support for EMI students is essential. Students should not be left alone to manage their own challenges, given that English is not their first language. Because there is no universal language benchmark for admission to EMI studies (Macaro, 2015), Kirkpatrick (2014) proposed that „all universities which insist on EMI programs must ensure that they also provide systematic ongoing English development courses which are integral to a student’s degree” (p. 7). Chapple (2015) likewise concluded that unless adequate language support is given, „EMI alone appears to lack the ability to confer linguistic benefits” (p. 5).

The area of EMI still has a number of unanswered questions. Given how rapidly the phenomenon is spreading, these questions assume some urgency, since the answers have the potential to affect large numbers of students and their futures. These questions include:

- A useful follow-up to this study might be to administer the questionnaire to a greater number of students from a larger range of disciplines.
- The study reported in this article was conducted in a university environment in Turkey, but it would be interesting to know whether EMI students in different contexts encounter similar or different challenges and needs.
- Future studies could investigate the difficulties and needs of students learning in an EFL context (where English is the foreign language) and those learning in a context where English is used as the mother tongue (e.g., UK, USA, etc.).
- Another useful line of further inquiry could focus on the perceived difficulties and needs of EMI lecturers, since English may not be necessarily their mother tongue.
- Future studies could also conduct interviews to gather more in-depth data from both students and lecturers.

- Studies might be conducted to investigate whether learner variables (e.g., gender, age) affect the findings of the present study.
- A dynamic approach might investigate whether learners' challenges or needs vary over time.

The EMI phenomenon has expanded exponentially in recent years, driven by the desire for inclusion in the global scene, and for a share in the financial benefits. The potential benefits, however, have also been accompanied by serious challenges, leaving both students and teachers struggling to cope. An examination of the challenges and needs expressed by the students in this study leads to a number of potentially helpful suggestions. Students suggest modifications to their preparation programs to better equip them with the vocabulary and skills they will need for what they will meet when they begin their major subject courses. They also express a need for ongoing language support, since, although EMI courses tend to operate on the assumption that the students' language proficiency level is adequate for the needs of their chosen course without further language input, the reality often is that students underestimate the challenges they will meet, and they may need further support if they are to complete their courses successfully.

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