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Implementing English-medium instruction: Comparing policy to practice at a Turkish university

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As part of the trend toward internationalization of higher education, governments and universities have introduced policies to encourage the expansion of English-medium instruction (EMI). However, top-down policies do not necessarily translate to teaching and learning practices. This article provides a case study examining the implementation of undergraduate EMI engineering programs at a state university in Turkey to explore the gaps that exist between national- and institutional-level EMI policies and classroom-level practices. Data were collected through policy documents, classroom observations, semi-structured interviews with teachers, and focus group discussions with students. The findings suggest that the implementation of EMI varies across classrooms, even within the same university department. Despite policies that envision one-language-at-a-time instruction, the EMI lecturers in this study varied in terms of language preference and teaching practice in their EMI lectures. Implications are discussed with respect to policy planning, teacher training, and the expansion of EMI across university contexts.

Keywords
English medium instruction (EMI), higher education, Turkey, L1 use, language policy

1. Introduction

English-medium instruction (EMI) has become a global phenomenon, with the number of English-taught programs at higher education institutions (HEIs) increasing worldwide (Dearden, 2014; Kirkpatrick, 2014; Wächter & Maiworm, 2015). The growth of EMI has been attributed to the internationalization of higher education (HE) (Galloway & Ruegg, 2020; Macaro et al., 2018) and the use of English as an academic lingua franca (Galloway & Rose, 2015). In the context of internationalization, EMI is often perceived as a means through which HEIs can attract international staff and students, prepare local students for the international job market, and improve university rankings (Galloway et al., 2017; Wächter & Maiworm, 2015). Because of these motivations, EMI has been linked to neoliberal discourses on global competitiveness (De Costa et al., 2019; Piller & Cho, 2013), regarding both institutional benefits and the supposed professional gains for students. Scholars have criticized the predominance of English in HE, raising concerns that internationalization has become conflated with ‘Englishization’ (Galloway et al., 2020; Moncada-Comas & Block, 2019). Nonetheless, discourses on global competitiveness are evident in many governmental
Turkey is no exception in the trend toward the expansion of EMI, which has occurred alongside an expansion of the HE sector. The number of HEIs in Turkey doubled between 2005-2010 (Günay & Günay, 2011) through a government-led effort to increase participation in HE (Cin et al., 2020). Many of these newly established universities in Turkey offer EMI programs. Although the history of EMI in Turkish HE dates to the 1950s (Selvi, 2014), the expansion of EMI programs, particularly at state universities and outside major urban areas, represents a shift in the availability and accessibility of EMI programs. EMI in Turkey has typically been limited to elite institutions, including Middle East Technical University and Bilkent University, which were the first public and private HEIs, respectively, to offer EMI programs. The connection between EMI and top-ranked universities in Turkey has led scholars to argue that EMI “exacerbates socioeconomics inequalities in the country” (Selvi, 2014, p. 143). However, the expansion of EMI in the HE system has broadened access to EMI programs to students from more diverse backgrounds (Cin, Gümüş, & Weiss, 2020). Given the growing number of HEIs offering EMI programs, research is needed to evaluate how a change in language of instruction may affect teaching and learning.

The expansion of HE in Turkey has been coordinated by government-led efforts and, in part, made possible by the centralized system through which HE is governed. The Council of Higher Education (Yükseköğretim Kurulu, YÖK) regulates policy and oversees HEIs in Turkey. Both public and private universities are bound by the regulations of YÖK and must seek approval from YÖK before opening graduate or undergraduate programs, including EMI programs. As such, Turkey provides a compelling case study for the investigation of EMI policy implementation, since policy is regulated centrally but carried out by teachers and students in classrooms. Despite the relatively long history of EMI in Turkish HE, little research has evaluated the processes through which EMI policy is implemented in practice, including contextualized challenges at the classroom level. This study investigates how EMI policy is enacted at a case university in order to understand how macro-policies are interpreted at the micro-level and explore what gaps, if any, exist between EMI policy and practice. In doing so, this study aims to contribute to more effective policy planning and implementation in support of EMI teachers and students.

2. Literature review

2.1 EMI aims and implementation

EMI is commonly defined as “[t]he use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language (L1) of the majority of the population is not English” (Macaro, 2018, p. 19). According to Macaro’s definition, EMI does not include explicit language learning aims: English is the means through which academic content is delivered, but the primary objective of EMI programs is content learning. This definition distinguishes EMI from other forms of English education such as Content and Language Integrated Learning (CLIL) or Content Based Instruction (CBI), both of which include more explicit language learning aims. CLIL is “a dual focused educational approach in which an additional language is used for the learning and teaching of content and language” (Coyle et al., 2010, p.1). As such, a CLIL curriculum aims to achieve the integration of both content and language teaching. CBI typically incorporates content
instruction to enhance language learning, its primary educational aim. In contrast, EMI curricula more commonly focus solely on content learning outcomes.

Other definitions of EMI, however, have included more explicit language learning aims, including Taguchi’s (2014) definition that describes EMI programs as “curricula using English as a medium of instruction for basic and advanced courses to improve students’ academic English proficiency” (p. 89). Researchers have suggested that language learning is, or may be, an implicit learning aim of EMI programs. A “widely purported benefit of EMI is that it kills two birds with one stone… [and] students simultaneously acquire both English and content knowledge” (Rose et al., 2019, p. 2). Similarly, empirical research (Galloway et al., 2017; Galloway & Ruegg, 2020) has suggested that students consider English language development as a primary motivation for enrolling into EMI programs. Galloway et al. (2017) found that EMI university students in China and Japan ranked English language learning as their top reason for choosing EMI programs and believed that EMI was more effective for improving students’ English proficiency than developing content knowledge.

The growing perception that EMI incorporates (implicit) language learning aims has led some researchers to argue that EMI has become ‘CLILised’ (Moncada-Comas & Block, 2019). However, despite the perceived linguistic benefits of EMI, a recent systematic review determined that there was inconclusive evidence concerning the effectiveness of EMI for language learning (Macaro et al., 2018). Researchers have suggested that EMI often falls short of its supposed dual aims (Chapple, 2015; Lei & Hu, 2014), in part because assumptions about language learning in EMI are “based on a naïve theory of second language acquisition, according to which language learning takes place by osmosis, simply via exposure to content in English” (Moncada-Comas & Block, 2019, p. 2). Empirical evidence has suggested that EMI content lecturers do not consider themselves as language teachers (Airey, 2012; Block & Moncada-Comas, 2019), nor do they incorporate language teaching into their classes (Costa, 2012; Moncada-Comas & Block, 2019). Jiang et al. (2019) investigated instances of focus-on-form (FonF) instruction, or instances in which attention is turned to language items within the lesson, in EMI classes at a university in China. FonF instruction can be planned or incidental. In total, the researchers identified five instances of FonF instruction in the data, which included nine classroom observations. Each of the FonF instances was initiated by the teacher, with two categorized as “reactive FonF on grammar” and the other three as “pre-emptive FonF on lexis” (p. 113). From these findings, the researchers concluded that FonF instruction or other instances of language teaching rarely occurred in EMI classes. Although language learning might be an (implicit) aim of EMI, empirical evidence has suggested that language teaching is not realized in practice. These findings have led to calls among researchers to promote the integration of content and language in EMI university teaching (Dimova & Kling, 2020).

In part, the disconnect between ‘CLILised’ aims and classroom practices may be attributed to the nature of EMI policymaking. In many contexts, the driving force behind the introduction of EMI is top-down. However, if policy expectations are not communicated clearly to teachers, students, and program administrators—including with respect to language proficiency—gaps may result between macro-level policy and micro-level practice (Hu et al., 2014; Ali, 2013). Aizawa and Rose (2019) examined the implementation of EMI programs at a Japanese university, focusing on the gap between meso-level university policies and micro-level practices. The study found that teachers and students reported linguistic challenges in EMI classes, despite policy measures for language proficiency and support. Aizawa and Rose also found that teachers lacked information concerning EMI policy, which resulted in inconsistent implementation. In another study on EMI policy in Japan, Rose and McKinley (2018) found that the interpretation of national policy at the institutional level was not always
straightforward or explicit. Similarly, Ali (2013) found that EMI university lecturers in Malaysia were unaware that macro-level policy framed EMI as a means through which to improve students’ proficiency. These studies suggest that macro-level policy aims are not necessarily translated into micro-level practice.

2.2 Language use and challenges in EMI

Concerns around EMI implementation have often focused on teachers’ and students’ low proficiency as an impediment to effective teaching and learning. Research on EMI has repeatedly demonstrated that students and teachers experience language-related challenges in EMI contexts (Galloway & Ruegg, 2020; Hu & Lei, 2014; Jiang et al., 2019). Students in EMI programs have reported difficulty asking and answering questions (Sert, 2008), understanding lectures in English (Hellekjær, 2010), and understanding discipline-specific vocabulary (Evans & Green, 2007; Kirkgöz, 2009). Moreover, studies have found that EMI lecturers simplify content (Hu et al., 2014; Sert, 2008) and use the L1 (Costa, 2012; Sahan, 2020a) to support student comprehension.

In the Turkish context, language support is provided through a preparatory support model (see Macaro, 2018), by which students enroll in a one-year, intensive English language program before commencing their EMI studies. The aim of the English preparatory program (EPP) in Turkey is to prepare students for academic study in English, particularly students who enter university with low levels of English proficiency. A benefit of the EPP system is that it provides an opportunity for students to develop their language skills before enrolling in EMI programs, thereby addressing criticism that scholars in other contexts (e.g. Hu et al., 2014) have raised concerning the social inequalities resulting from English as a gatekeeper to EMI programs. However, EPPs in Turkey have been criticized for not adequately preparing students for EMI study (Ekoç, 2020; Kirkgöz, 2009). While these studies have investigated the language challenges that EMI students face, there remains a lack of research investigating how macro- and meso-level language policies are implemented at the micro-level. It is important to examine how EMI is implemented at the micro-level in order to understand patterns of language use, teaching practices, and challenges that might affect the quality of education. This study aims to address that gap by investigating the implementation of undergraduate EMI engineering programs at a state university in Turkey.

3. Methodology

3.1 Research questions and framework

This study addresses the following research questions:

1. How are national EMI policies interpreted and negotiated as institutional policies at the case university?
2. How are institutional EMI policies implemented by teachers and students at this university?
3. What gaps, if any, exist between national and institutional EMI policies and classroom practices?

To investigate EMI implementation, this study adapted the framework developed by Aizawa and Rose (2019), illustrated in Figure 1. The framework divides policy implementation into
three levels: the macro- (national), meso- (institutional), and micro- (classroom) level. The framework was developed for research on EMI in Japan, and this study makes a contribution by applying it to the Turkish HE context.

**Figure 1.** Framework adapted from Aizawa and Rose (2019)

Theoretical frameworks that examine policy along macro-, meso-, and micro-levels have been criticized by researchers who prefer a more fluid approach to policy analysis (e.g., Barakos & Unger, 2016; Johnson, 2011). Criticisms include characterizations of the framework as a narrow or static model that attempts to sort policy and policy actors neatly into three boxes. However, the rationale for employing a more structural framework to analyze EMI policy (e.g., macro-level texts and micro-level practices) was to examine the relationship between the layers of proverbial language policy onion (Ricento & Hornberger, 1996) and explore “the way that top-down policy and planning impacts on the local” (Baldauf, 2006, p. 155)—or is resisted by individual actors. In using a macro-, meso-, and micro-level framework, the present study does not assume that policy is static or linear; rather, it seeks to highlight the ways in which top-down policy processes are interpreted, negotiated, and resisted by institutional- and classroom-level actors.

3.2 Setting: The case university

This study uses a single case study approach to investigate EMI policy implementation, in line with calls for policy-oriented research to incorporate fieldwork (Rose & McKinley, 2018) and qualitative methods for multilayered analysis (Hu et al., 2014). The case university is a large state university in a major city in Turkey. At the time of data collection (March-April 2018), it enrolled more than 40,000 undergraduate students. It was chosen as the research site because it is a prominent university, which offers EMI programs in several disciplines and has a well-established School of Foreign Languages, through which the EPP
is administered. In addition to EMI, the university offers Turkish-medium instruction (TMI), which is common among Turkish universities with EMI programs. As such, it offers a case study of a bilingual university with transferability to other HEIs in Turkey and abroad. Table 1 provides information on the engineering departments included in this study. Neither department offered a TMI undergraduate program.

Table 1. Engineering departments in this study

<table>
<thead>
<tr>
<th>Engineering department</th>
<th>Number of teaching staff</th>
<th>Number of undergraduate students</th>
<th>Type of EMI programs offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>20-30</td>
<td>750-800</td>
<td>Full &amp; partial</td>
</tr>
<tr>
<td>Electrical</td>
<td>10-20</td>
<td>550-600</td>
<td>Partial</td>
</tr>
</tbody>
</table>

Demographic information for the participant teachers—Taha, Ismail, Firat, and Turgay—is provided in Table 2, and focus group information is provided in Table 3. To protect the identity of participants, pseudonyms are used in this study. All teachers were male and had experience teaching through English and Turkish. They reported the same amount of EMI teaching experience as total teaching experience. None of the teachers had received any form of pedagogical or teacher training. Focus groups ranged in size from 4 to 8 students and were primarily comprised of male students. This unequal gender distribution reflected the composition of the engineering departments at the case university, which were predominantly male. Teachers and students voluntarily participated in this study.

Table 2. Demographics for EMI lecturers

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Engineering Department</th>
<th>Title</th>
<th>Teaching experience (years)</th>
<th>PhD</th>
<th>Subject taught</th>
<th>Class size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Taha</td>
<td>Mechanical</td>
<td>Lecturer</td>
<td>4</td>
<td>TR</td>
<td>Strength of Materials</td>
<td>75</td>
</tr>
<tr>
<td>2 Ismail</td>
<td>Mechanical</td>
<td>Professor</td>
<td>10+</td>
<td>UK</td>
<td>Energy engineering</td>
<td>30-40</td>
</tr>
<tr>
<td>3 Firat</td>
<td>Mechanical</td>
<td>Lecturer</td>
<td>3.5</td>
<td>TR</td>
<td>Thermodynamics</td>
<td>11</td>
</tr>
<tr>
<td>4 Turgay</td>
<td>Electrical</td>
<td>Professor</td>
<td>10+</td>
<td>USA</td>
<td>Circuit Analysis</td>
<td>40-60</td>
</tr>
</tbody>
</table>

Table 3. Demographics for student focus groups

<table>
<thead>
<tr>
<th>FG &amp; Teacher</th>
<th>Number of students</th>
<th>Male</th>
<th>Female</th>
<th>Year of Study</th>
<th>Engineering Department</th>
<th>EMI program type</th>
</tr>
</thead>
<tbody>
<tr>
<td>FG1-Taha</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>Mechanical</td>
<td>Partial</td>
</tr>
<tr>
<td>FG2-Ismail</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Mechanical</td>
<td>Partial</td>
</tr>
<tr>
<td>FG3-Firat</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>Mechanical</td>
<td>Full</td>
</tr>
<tr>
<td>FG4-Turgay</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>Electrical</td>
<td>Partial</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>25</td>
<td>2</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
3.3 Data collection

Four data sources were included in this study: policy documents, classroom observations, semi-structured interviews with lecturers, and focus group (FG) discussions with students. Data were collected as part of a larger study investigating EMI implementation in Turkey (Sahan, 2020b). The study reported in this article offers an in-depth examination of EMI policy and practice at a single university.

Policy data were collected from national and institutional policy documents. A total of 96 policy documents were examined for this study, including 89 national policy documents and 7 institutional policy documents. National policy documents were accessed through YÖK’s website (https://www.yok.gov.tr/) and the National Gazette1 (https://www.resmigazete.gov.tr/). The main policy document regulating EMI at Turkish universities was identified as Law No. 29662, published in the National Gazette on 23 March 2016. The institutional policy documents were primarily accessed through the university’s website and consisted of:

1. The Directive for Undergraduate Education
2. The Promotion and Hiring Directive for Academic Staff
3. Annual Activity Reports
4. The University’s Strategic Plan
5. The University’s Introductory Catalogue

Additionally, departmental websites were reviewed for information pertaining to EMI curricula. All documents were publicly available and written in Turkish.

In addition, data were collected through classroom observations (n=13) with four EMI content lecturers in the Engineering Faculty of the case university. Observations were audio-recorded using two nonobtrusive recorders. Each lecturer’s class was observed twice over a two-week period. Classes were scheduled in multi-hour blocks (typically three-hour blocks) with breaks dividing individual ‘lessons.’ As a result, 13 lessons were observed for a total of 9 hours and 15 minutes of audio-recorded data, or an average of about 43 minutes per lesson and 3-4 lessons per teacher.

Semi-structured interviews were conducted with the lecturers after each set of observations for a total of eight interviews, or two per lecturer. Each interview was approximately 35 minutes long. Focus groups discussions (n=4) were conducted with students from each of the observed classes following the second set of observations. Focus groups were scheduled in between classes, according to students’ availability, and were approximately 30 minutes in length. The aim of the interviews and focus groups was to triangulate the findings from classroom observations and incorporate teachers’ and students’ perspectives into the analysis.

Interviews and focus groups were conducted in the participants’ language(s) of choice. All focus groups were conducted in Turkish, while the interviews were conducted in both Turkish and English according to teachers’ preferences. The interview schedule was piloted with a different group of EMI teachers and students at a mechanical engineering department in Turkey (Sahan, 2020a) prior to data collection.

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1 The National Gazette is an official government publication in which legal notices, new laws, decrees, and regulations are published.
3.4 Data analysis

Policy documents were analyzed using the ROADMAPPING framework (Dafouz & Smit, 2016), which was developed by Dafouz and Smit (2016) to examine the dynamics of EMI in university settings. The framework includes six dimensions: the role of English (RO), academic discipline (AD), language management (M), agents (A), practices and processes (PP), and internationalization and glocalization (ING). In the analysis of policy documents, the ROADMAPPING framework was applied as a deductive analytical framework to situate the analysis, and the six dimensions of the framework were used as codes for analysis with sub-themes emerging under each dimension. Due to space limitations, the study reported in this article focuses only on the RO dimension of the framework, which refers to the function and status of English in relation to other languages at the university site, including the position of English as a foreign language and a lingua franca. Other studies (e.g., Baker & Hüttner, 2017; Dafouz & Smit, 2017) have similarly focused their analyses on the RO dimension of the ROADMAPPING framework in order to highlight the complex role of English in university settings. The focus on the RO dimension and emergent sub-themes helped guide the policy analysis with respect to the research questions. The classroom observations were transcribed and analyzed in NVivo (https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software) using a structured coding scheme adapted from Tsui (1985) to investigate language choice, codeswitching, and teacher-student interaction. The transcription conventions are available in the Appendix.

The interviews and focus groups were also audio-recorded, transcribed in full, and analyzed in NVivo using qualitative content analysis (Kuckartz, 2014) for recurring themes. The data analysis procedures were similar to those used in other studies to investigate EMI policy implementation (Aizawa & Rose, 2019; Hu et al., 2014). The analysis of interview and focus group data consisted of two rounds. An initial round of inductive coding was conducted to generate themes from the data. This initial coding framework was evaluated with respect to the research questions, and a final coding framework was produced, which was then applied deductively to the data in a second round of coding.

As a final step of data analysis, the results from the different data sources were compared. Four themes emerged from the analysis of policy documents using the RO dimension of the ROADMAPPING framework. These four themes also emerged in the analysis of interview and focus group data, and they were evident in the analysis of classroom observations. The findings with respect to these four themes are presented in the following section.

4. Results

The four themes which emerged from the analysis of data were:

1. Language of instruction in EMI programs
2. Students’ English proficiency requirements and support
3. Teachers’ English proficiency requirements and support
4. Language development as an aim of EMI

These themes were found with respect to macro-level policy interpretation in institutional policy documents (RQ1) and in micro-level classroom practices (RQ2); they also suggested gaps between EMI policy and practice (RQ3). In this section, findings are organized around
these four themes to address the research questions and explore EMI policy implementation at the case university.

4.1 Language of instruction in EMI programs

National language education policies provide for two types of EMI programs in Turkey: full EMI programs, in which 100% of the course curriculum is delivered through English; and partial EMI programs, in which a minimum of 30% of course credits must be taught through English. HEIs can increase the portion of English-taught courses in partial EMI programs, as was seen at the case study university, where department heads were responsible for arranging the academic program. This included deciding which courses would be taught through English, how many courses would be taught through English, and how these courses would be distributed throughout the students’ four years of study. Thus, at the meso-level, departments determined the format of their partial EMI programs.

At both the Mechanical and Electrical Engineering Departments, EMI classes were evenly distributed throughout the students’ four years of study, meaning that students took approximately four to six EMI courses per semester. The partial EMI program in the Electrical Engineering Department exceeded the 30% minimum threshold: the Department website reported that approximately 80% of courses were delivered through EMI, and this was confirmed through interviews with Turgay and students (FG4-Turgay).

By quantifying the language of instruction with respect to course credits, national and institutional EMI policies appeared to imply that each class should be conducted in (only) one language. However, policy documents did not provide explicit guidelines on language use for teaching and learning in EMI courses; nor did they state how languages should be used for lectures or discussions. With respect to assessment, national policy stated: “In programs in which classes are given in a particular foreign language, exams must be conducted in this foreign language, and homework and dissertations must be written in this foreign language” (Law No. 29662, Article 6, Clause 14). Although guidelines on classroom language use were absent, by characterizing EMI classes as those ‘given in a particular foreign language,’ national policy appeared to envision an implicit one-language-at-a-time model of instruction. Further guidelines with respect to language use in EMI classes were not found in institutional policy documents.

Although policy appeared to envision a one-language-at-a-time model of instruction, classroom observations and interviews with teachers and students revealed that language use in EMI classes was flexible and fluid. Both English and Turkish were used in all four teachers’ classes for pedagogical purposes, although in various capacities. Table 4 summarizes the proportion and purpose of English and Turkish used in each teacher’s class.

<table>
<thead>
<tr>
<th>Table 4. Language use in EMI classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avera</td>
</tr>
<tr>
<td>ge proportion</td>
</tr>
<tr>
<td>spoken</td>
</tr>
<tr>
<td>language (%)</td>
</tr>
<tr>
<td>Turkish</td>
</tr>
<tr>
<td>Pauses</td>
</tr>
</tbody>
</table>
Ismail was the only lecturer in whose class English was used as the primary language of instruction. Although English was used to lecture, Ismail used Turkish in class discussions and to provide instructions or short summaries. He also encouraged students to ask and answer questions in Turkish because, as he stated in a follow-up interview, it was better for students to participate in Turkish than not participate at all (Ismail, interview 1). In contrast, Turkish was the primary language of instruction in Fırat and Turgay’s classes. Although Fırat lectured in Turkish, he commonly used English terms, such as in Extract 1.

**Extract 1**


[Steam enters at t-one. From here, the steam or the mixture or, uh, either of them enters. These two are mixed. After mixing, this one that’s come in gets warmer, it mixes with this one that’s come in and it gets warmer and then it cools and it leaves as t-three. Saturated liquid or compressed liquid leaves from here.]

(Fırat, Observation 1)

Here, Fırat explained a concept involving feedwater heaters in Turkish but used English terminology such as steam, mixture, and saturated liquid. In Fırat’s classes, full-sentence utterances or explanations in English were rare, although this form of codeswitching was common in explanations and discussions. English technical terminology was occasionally used in Turgay’s class, although less than in Fırat’s class. However, Turgay wrote on the board exclusively in English, often writing English terminology pertaining to the concepts he explained in Turkish.

Fırat and Turgay provided different explanations for why they primarily taught in Turkish. Fırat recognized that his lectures were, on paper, EMI courses and acknowledged that he was deviating from official policy. However, he stated that he was teaching (primarily) in Turkish for the benefit of his students, whom he described as having low levels of English proficiency. In contrast, Turgay explained his language use in terms of students’ preference rather than proficiency. Turgay stated that he was teaching this particular EMI
class in Turkish “because the students asked me to. There are no foreign students, so I said okay” (Turgay, Interview 1). In their focus group, students from Turgay’s class confirmed that they had asked him to teach in Turkish, with one student adding: “Last semester, he taught a class and it was all in English, but this one is all in Turkish” (Student 4, FG4-Turgay).

Taha’s class was unique compared to others in the sample in that his class consisted of a higher proportion of pauses. Taha also differed in how he used Turkish and English. In Taha’s class, English was used for prepared materials, slides, and lecture notes, from which Taha read or copied onto the board—a process which contributed to the high proportion of pauses. After reading from English slides or notes, Taha used Turkish for discussions and summaries to supplement what he had prepared in English. When asked about the language of instruction in his class, Taha described his language proficiency as insufficient to teach entirely in English, making him the only teacher in the sample to do so (discussed later).

Although teachers described official policy as stipulating the use of one language at a time, they acknowledged that this policy was not followed in practice. Firat explained, “the classes are supposed to be either English or Turkish but in practice we use both” (Firat, interview 1). Turgay stated that students could choose whether they preferred to attend classes in English or Turkish, explaining that the “the schedules have to work” but students could “come to whichever section [they] want” (Turgay, Interview 1). These findings with respect to flexible policy implementation were confirmed by students in focus groups, who reported no clear division between their EMI and TMI classes (FG2-Ismail). Students stated that teachers used Turkish to explain concepts during EMI lectures and “use[d] a lot of English terms in Turkish classes” (Student 1, FG2-Ismail). Thus, EMI classes were taught bilingually despite policy provisions for one-language-at-a-time instruction.

The flexible language practices observed in classrooms were defended by teachers as beneficial for students’ content learning. Ismail, in whose class the highest proportion of English use was found, stated, “you can use only English in class, but if the students do not understand you, this is not teaching; this is talking” (Ismail, interview 1). In order to teach students with low English proficiency, many teachers believed that “sometimes Turkish support is necessary to make sure they understand why and what’s happening” (Taha, interview 2). Many students also shared their teachers’ perception that using Turkish made lectures easier to understand (FG1-Taha; FG2-Ismail), and students in all four focus groups responded positively to their teachers’ L1 use.

4.2 Students’ English proficiency requirements and support

Implicit in teachers’ and students’ comments about L1 use was the assumption that students experience language-related challenges in EMI classes. National policy regulates students’ English proficiency through the EPP, an intensive English language program and a prerequisite for students enrolled in full and partial EMI programs. According to national policy, students must take an English proficiency exam prepared by their university before beginning their EMI departmental classes. Students who pass the proficiency exam are exempt from the EPP, while students who do not pass are required to complete the EPP or pass a proficiency exam before beginning their EMI classes. National policy allows students to submit scores from language exams recognized by YÖK, with HEIs setting the minimum standard for passing grades.

National policy establishes the EPP as the model of language support that universities in Turkey must follow (see Macaro, 2018). According to national policy, every university in Turkey with at least one full or partial EMI program must establish an EPP to support its
students’ English development. Although current national policy requires students to complete the EPP before enrolling in EMI classes, it does not establish specific guidelines with respect to:

- the number of English classes offered per week/semester in the EPP;
- the proficiency requirements for passing the EPP;
- the organization of the EPP curricula, including whether the EPP should offer General English, EAP, or ESP courses.

In other words, national policy outlines the procedures for testing L2 proficiency but does not set a minimum proficiency requirement for EMI programs; instead, proficiency standards are determined by the HEI. At the case university, students were required to obtain scores of 60 on the in-house exam, 79 on the TOEFL exam, or 6.5 on the IELTS exam. National policies also do not require students to enroll in additional English support classes after completing the EPP; however, at the meso-level, EMI departments could require additional English courses as part of their EMI curricula. Both departments in this study required students to take two advanced English and two EAP courses during their first four semesters.

Despite the language support provided through macro- and meso-level policies, teachers reported problems with students’ English proficiency stemming from issues with the EPP. Taha and Ismail stated that the EPP’s emphasis on grammar teaching limited effective language learning, and Firat and Turgay stated that the passing grade was too low for EMI study. Turgay stated that, although B2 was the target level of proficiency, the EPP “get[s students] to B1 and assume[s] they’ll learn the rest here” (Turgay, interview 2). Students also reported difficulty understanding concepts (FG4-Turgay) and asking questions in English (FG2-Ismail; FG3-Firat).

Moreover, the teachers reported a lack of collaboration with language teachers in the EPP. Turgay stated he had wanted to work with language teachers to improve the quality of the EPP but was unable to do so because “they have their own problems, you know, with class sizes or desks or teaching hours…. so we can’t just tell them to change it” (Turgay, interview 2). As such, Turgay perceived logistical barriers to collaboration as an obstacle to improving students’ language support.

4.3 Teachers’ English proficiency requirements and support

In addition to students’ proficiency, national policies also establish English proficiency requirements for lecturers on EMI programs. According to the regulations, EMI classes “should be given in this language [English] and by teaching staff who have command of this language” (No. 29662, Article 8, Clause 7). However, the regulations do not specify the competencies needed for ‘command of’ English. Instead, national policy outlines the criteria that lecturers must meet in order to teach in English. Lecturers must either have completed their doctoral degrees abroad in English or received a minimum score of 80 points on a national language exam, or the equivalent score on an international exam recognized by YÖK. The English proficiency standards for EMI lecturers are the same for both full and partial EMI programs, the only policy distinction being the number of qualified teaching staff required for each program. For partial EMI programs, at least four lecturers must meet the proficiency standards, while all teaching staff members must meet these requirements for full EMI programs.

National policies were reflected in institutional policy documents at the case university, which codified the language proficiency requirements for EMI teachers in its
hiring and promotion criteria. The Engineering Faculty at the case university required English exam scores meeting the national requirements for EMI teaching (80 points on a national exam) from prospective applicants and teaching staff applying for tenure. The policy appeared to ensure that all teaching staff members were qualified to teach through English.

Despite these policy requirements, teachers expressed concerns with how proficiency was assessed for EMI programs. They stated that the national exam focused on grammar and did not evaluate the oral skills needed for EMI teaching. Ismail explained that the exam “says nothing about how well you can teach. Solving grammar on a test is not like teaching [in English]” (Ismail, interview 1). Furthermore, Turgay noted that teaching skills and pedagogical training were absent from policy requirements and that language proficiency alone did not qualify one as a competent teacher (Turgay, interview 1). None of the teachers in this study had received any kind of pedagogical training. Moreover, the teachers were unaware of any language support available to them as EMI lecturers, which was confirmed by the absence of language support for teachers in national and institutional policy documents.

While they criticized the English proficiency requirements for EMI teaching, only one teacher in this study (Taha) reported concerns with his English proficiency. Taha stated that he was “not ready yet” to teach entirely through English and worried about making language mistakes in front of his students (Taha, interview 1). As previously stated, Taha relied heavily on lecture notes and prepared texts in English, which he supplemented with Turkish summaries, as illustrated in Extract 2.

Extract 2:
T: This is the relative displacement. B to C. With respect to C.

Taha spent nearly one minute copying a sentence from his notes in English and then provided a Turkish explanation of what he had written. By doing so, Taha could be sure that his English explanations were grammatically correct. Taha’s strategy of using lecture notes echoes the findings of Hu et al. (2014), in which teachers “stay[ed] close to the textbook” (p. 35) to overcome language challenges.

4.4 Language learning as an aim of EMI

The fourth theme to emerge from the analysis was the extent to which language learning was an aim of EMI. According to national policy documents, the aim of EMI was “to ensure that graduates… gain foreign language competences related to their fields” (Article 5, Law No. 29662). As such, language learning was found to be an explicit policy aim of EMI programs at Turkish universities—or, at a minimum, language learning was a policy justification for EMI.

Although language learning aims were found in macro-level documents, these aims were not reiterated in institutional policies at the case university. In fact, institutional documents did not provide an aim or justification for EMI programs; they simply stated that programs could be taught through English with the approval of the University Senate.
At the micro-level, students generally perceived an improvement in their language skills through EMI study (FG2-Ismail; FG3-Firat). One student stated that he improved his English because “you get used to [English] terms whether or not you want to, because every day or twice a week, you’re taking that class and you’re always hearing those terms” (Student 1, FG2-Ismail). Teachers described similar, implicit language learning benefits because students “learn by seeing and practicing” English in their engineering classes (Taha, interview 2).

Only one teacher (Taha) was found to incorporate FonF practices, or any form of instruction with an explicit language focus, in his classes. The FonF practices identified in Taha’s class included defining specific words and drawing attention to the grammar of a particular part of the lesson, as illustrated in Extract 3.

Extract 3:
<T writes: ‘If f-b were a negative quantity, the problem would be statically determinate.’>
T: Were a negative quantity. Olsaydı gibi. [Like ‘if it were’]
<pause, 4 seconds>
T: The problem would be statically determinate. Not indeterminate.
(Taha, Observation 3)

Extract 3 demonstrates how Taha used Turkish, English, and written material to teach. While solving a problem, the teacher noted the grammatical structure of the sentence he was copying from his notes (‘If f-b were a negative quantity…’). Taha then explained the meaning of the sentence in Turkish (‘Olsaydı gibi’), emphasizing that it was a conditional clause. In a follow-up interview, Taha stated that he focused on this aspect of English grammar because “it was something important, and I felt I had to explain it” in order for students to understand the solution (Taha, interview 2). As such, although Taha incorporated FonF instruction in his lessons, he did so in order to promote content learning; he did not necessarily consider language learning to be an objective of his course. However, his statement alludes to the intertwined relationship between language and content in EMI classes (see Baker & Hüttner, 2017). No examples of FonF instruction were observed in the other three teachers’ classes. The lack of language-focused teaching in these EMI classes, coupled with Taha’s explanation for his own practices, suggests that the teachers in this study did not consider language learning to be an (explicit) aim of their EMI classes.

5. Discussion and conclusion

This study investigated EMI policy implementation in undergraduate engineering classes. Despite national and institutional guidelines, EMI practices varied across classrooms at the case university. Unlike previous studies suggesting that teachers were unaware of policy regulations (e.g., Aizawa & Rose, 2019; Ali, 2013), this study found that teachers were largely aware of EMI policy and recognized that their language practices deviated from language of instruction guidelines. An exception to the teachers’ general awareness of macro-level policy concerned language learning as an aim of EMI programs. The teachers perceived themselves as responsible for content—not language—teaching (Airey, 2012; Block & Moncada-Comas, 2019) and considered language learning to be an implicit benefit of EMI.

Table 5 summarizes the findings of this study.

Table 5. Summary of findings
<table>
<thead>
<tr>
<th>Language of instruction</th>
<th>Students’ English proficiency &amp; support</th>
<th>Teachers’ English proficiency &amp; support</th>
<th>English learning through EMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macro-level policy</td>
<td>Defines EMI programs at the curricular level</td>
<td>Establishes the EPP to develop students’ proficiency</td>
<td>Establishes English proficiency requirements</td>
</tr>
<tr>
<td>Meso-level policy</td>
<td>Determines the proportion of English-taught classes in partial EMI programs</td>
<td>Establishes proficiency standards; requires additional English support courses</td>
<td>Includes English proficiency requirements in its hiring and promotion criteria</td>
</tr>
<tr>
<td>Micro-level practice</td>
<td>Flexible and bilingual language use in EMI classes</td>
<td>Reported difficulty understanding content in English</td>
<td>English skills assessed on exam do not match the competencies needed to teach; one teacher felt unprepared to teach in English</td>
</tr>
</tbody>
</table>

A key finding of this study is the role that content teachers play in implementing EMI policy at the classroom-level. Although teachers lacked agency with respect to macro- or meso-level policymaking, they were found to shape the practices that characterize EMI teaching and learning. Given the key role that teachers play in EMI implementation, it is imperative that they are provided with the support mechanisms and training needed to work effectively in EMI contexts. Requirements for EMI teachers, including English proficiency requirements, should be revisited to reflect the linguistic and pedagogical competencies needed to teach through an L2, and the experiences of EMI teachers should be considered by macro-level policymakers in order to support their classroom level needs. This study joins others (e.g., Hu et al., 2014) in finding that the English proficiency required by policy did not reflect the competencies needed to teach through English. Moreover, language support and professional development opportunities were not available to EMI lecturers, which may have contributed to the diversity of teaching practices observed in classrooms.

Although language learning was found to be an aim of national EMI policies, the directives did not outline practices to support language teaching and learning in EMI courses, nor did national policy provide for ongoing language support to promote students’ English development after the EPP. FonF instruction was not found to be a common pedagogical practice in the observed EMI classes, reflecting the findings of previous studies (e.g., Costa, 2012; Jiang et al., 2019) and suggesting that EMI may not provide an educational environment to support language learning. Moreover, L1 use was common in the observed
EMI classes (Sahan, 2020a), with Turkish serving as the de facto language of instruction in two of the four teachers’ classes. This finding casts further doubt on the effectiveness of EMI to improve students’ proficiency. Given the high levels of L1 use observed in this study, EMI classes at the case university are unlikely to achieve the immersion setting envisioned by stakeholders for ‘CLILised’ EMI programs (Moncada-Comas & Block, 2019). Instead, these findings highlight the bilingual or multilingual nature of EMI classrooms and suggest that bilingual practices, rather than monolingual norms, should be the “central object of inquiry” (Ortega, 2019) in EMI research.

Without micro-level support for language development, macro- and meso-level policies seemed to assume that language learning would occur implicitly through EMI programs, an assumption shared by teachers and students (Kırkgöz, 2014). However, the findings of this study and others (e.g., Lei & Hu, 2014) have challenged that assumption. Rather than assume that students’ English skills will improve through EMI programs, clear policy mechanisms are needed to support language development through and alongside EMI coursework (Galloway et al., 2020). Support systems could include pedagogical training to equip EMI teachers with the skills needed to integrate content and language teaching (Galloway & Ruegg, 2020; Dimova & Kling, 2020) as well as ongoing language support classes for students with a focus on discipline-specific language needs (Aizawa & Rose, 2019; Jiang et al., 2019). Rather than follow a General English curriculum with a focus on grammar teaching, the EPP and other language support courses could be revised to support the academic and technical English needs of students (Ekoç, 2020; Galloway & Ruegg, 2020). While some ongoing language support courses were offered through the department’s curriculum, these classes did not appear to address students’ needs. To update the English language curriculum most effectively, meso-level policies should be revised to promote collaboration between content and language teachers, thereby removing institutional barriers found in this study and others (Galloway et al., 2017; Galloway & Ruegg, 2020). For example, input from content teachers regarding students’ discipline-specific language needs could be used to revise the EPP curriculum.

EMI programs are increasingly promoted through government-supported policies in countries around the world. However, as the findings of this study have indicated, macro-level policies are not necessarily implemented consistently or uniformly at the classroom level. This study offered a single-case analysis of an Engineering Faculty. Further research is needed to assess the transferability of these findings to other contexts, both in Turkey and globally. While other case studies have found similar results with respect to gaps between policy and practice (Aizawa & Rose, 2019; Ali, 2013; Hu & Lei, 2014), comparative research is needed to understand how EMI programs are implemented across contexts and disciplines.

Furthermore, this study was conducted in a setting in which the majority of teachers and students were local L1 Turkish speakers. These demographics may have contributed to findings with respect to language use in EMI classrooms. Language policies can work to promote or restrain multilingual practices (Liddicoat & Taylor-Leech, 2015), and the findings of this study suggest that national and institutional policies are underpinned by a monolingual ideology discouraging language mixing or bilingual instruction. Nonetheless, bilingual language practices appeared to be a common feature of the EMI classes in this study, and the L1 was used to facilitate content learning. These findings suggest that teachers and students resisted the monolingual ideology of official EMI policies by incorporating the L1 in their classroom practices, although languages other than English and the L1 were not found in this study. While further research is needed to understand EMI implementation in a context where teachers and students do not or are less likely to share an L1 or L2 other than English,
policymakers may consider adopting more bilingual or multilingual models of EMI that embrace the use of teachers’ and students’ full linguistic resources (Kirkpatrick, 2014). The current study approached policy implementation from a macro-, meso-, and micro-level perspective. A more dynamic theoretical approach grounded in the discourse analysis of policy (e.g., Barakos & Unger, 2011) may further illuminate the role of individual teachers and students as policy actors who interpret, negotiate, and appropriate policy.

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Appendix 1. Transcription conventions

T = teacher; indicates that the teacher is speaking
S = student; indicates that a student is speaking
< > = indicates non-verbal direction or clarifies an action; for instance, writing, reading, pause
<pause, 3 seconds> = indicates pause and length of pause
<T writes, ‘words’> = indicates what the teacher wrote on the board
italics = indicates the utterance occurred in Turkish and is transcribed in the original Turkish
[italics] = translation of Turkish text to English; translation indicated by italics; any words kept in the original (e.g., original in English) are not italicized

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