# Stakeholder Perspectives on the Use of English-Medium Instruction (EMI) in Turkish Universities


**Tijen Akşit and Alev Sezin Kahvecioğlu**

**Abstract** Today internalization of education has resulted in an almost exclusive dominance of the use of English as a medium of instruction (EMI) in many tertiary educational institutions across the globe. EMI is defined as using English in the teaching of academic subjects in contexts where the mother tongue is not English. A growing body of research exits on the debate regarding the need for EMI. While some studies establish the benefits, some others reveal the threats it constitutes. These inconclusive results call for more in-depth research on the subject, especially in terms of exploring immediate stakeholder perspectives. This survey study was conducted with students, content professors (CPs) and English language instructors (ELIs) of 25 EMI universities in Turkey, and data were collected from 349 participants exploring their perceptions regarding the use of EMI in tertiary education. The study also investigated whether student perceptions change according to their demographic variables including but not limited to gender and disciplines studied. In a similar fashion whether the perceptions of professors and language instructors are shaped by their demographic variables, was also investigated. The quantitative data were analyzed using descriptive and inferential statistics, while the qualitative data were analyzed via content analysis.

**Keywords** English medium instruction (EMI) · Stakeholder perspective · Internalization

T. Akşit (✉)
İhsan Doğramacı Bilkent University, Ankara, Turkey
e-mail: aksit@bilkent.edu.tr

A. S. Kahvecioğlu
TOBB University, Ankara, Turkey
e-mail: acirak@etu.edu.tr



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## 1 Introduction

Internalization of higher education paved the way for a growing number of higher education institutions (HEIs) to opt for using EMI for the last few decades in countries where English is not the primary language of communication. There are various historical and economic reasons for this phenomenon (Phillipson, 2003; Coleman, 2006; Kılıçkaya, 2006; Doiz et al., 2011; Karakaş, 2016; Macaro & Akıncıoğlu, 2018). The underlying motives include but are not limited to these institutions' attempt to keep up with competitors in the ever-growing market of higher education sector by attracting better students from all around the world and giving their graduates a leverage in the fierce competition at the international job market. They hope to make their names known in the international arena through various means, for example the university rankings (Dearden, 2016). All this has resulted in English becoming an omnipresent language as the medium of education, especially in Europe (Brumfit, 2004; Jensen & Thogersen, 2011).

As to the Turkish context, few pioneer Turkish EMI universities founded in the 1950s were followed by other EMI universities in the 1980s, especially after the Higher Education Act of 1984. Finally, in the last couple of decades, after the Bologna process started in 2001, the number has grown significantly faster with the increase of the foundation universities, many of which are EMI institutions (Kırkgöz, 2007, 2009, 2016; Başıbek et al., 2014; Karakaş & Bayyurt, 2019). Following the global trend, this unstoppable increase in the number of EMI universities in Turkey in the last few decades (Selvi, 2014; Macaro et al., 2016; Turhan & Kırkgöz, 2018; Özer, 2020) was attributed to many factors including the global competition of high-quality education standards, creating better access to academic texts and encouraging globally acclaimed research, and creating possibilities of employment for their students after graduation in a global business environment (Kılıçkaya, 2006; West et al., 2015).

To many EMI is necessary, others question its possible effects on the culture, technological development and language of local context, or emphasize the burden it creates for students (Coleman, 2006; Ellili-Cherif & Alkhateeb, 2015). Relevant EMI literature shows stakeholder perspectives regarding attitudes towards and perceptions of EMI in HEIs (Macaro et al., 2018). Studies conducted in Denmark (Jensen & Thogersen, 2011), and in Nothern Cyprus (Osam et al., 2019) exemplify this trend. The former claims that most instructors in a large Scandinavian university have a positive attitude towards EMI and they generally find their English level to be sufficient. Some instructors were also identified reporting concerns like EMI requiring more preparation, classes being less interactive, expression of ideas being more difficult, and teaching becoming more demanding (Jensen & Thogersen, 2011). Osam et al. (2019) report low student motivation in freshman year increasing in the following years as students learn how to cope with EMI challenges. Low student motivation is reported as causing problems for student understanding of some courses as desired. Sollaway's (2016) study conducted with female students in the UAE, found out that students acknowledge the need for good English

language skills to survive in a globalized world but that they also raise concerns regarding the challenge their low level of English brings to their learning, and the possible threat wide use of English poses to local Arabic language.

Studies conducted in Turkey also present some conflicting results regarding stakeholders' perception of EMI. For instance, Kılıçkaya (2006) found that Turkish professors prefer using Turkish as a medium of instruction while acknowledging that resources and student class participation related issues would not be solved regardless of the language of instruction. The study, however, concludes that students would benefit better if the instruction was in Turkish. According to Atik (2010) students admit having difficulty in learning in the content courses, which might be due to students' poor language skills even by the end of their English language preparatory year education if they start their university as zero beginners (Kerestecioğlu & Bayyurt, 2018).

Likewise, Karakaş (2016), who studied student and lecturer perspectives in three well established EMI universities, found that both groups believe EMI makes their university a more prestigious one as it internationalizes the institution. While this study found no influence of professors' field of discipline on their perspective, engineering students were found to attribute more importance to communication rather than linguistic accuracy in their speaking compared to students studying other disciplines. As to writing though, within the light of their institutional policies, both groups have native like academic English proficiency expectations from students. Another study was conducted by Aslan (2016) in six EMI universities with students, lecturers and graduates. The study found students to have the most positive attitude towards EMI, however, all stakeholders unanimously acknowledge the need for EMI due to English being an asset for their social and economic lives. Nevertheless, all groups also agree that good student and lecturer proficiency in English is a prerequisite. In a different study, Yıldız et al. (2017) studied EMI students' needs and challenges. Understanding technical terms, and low language proficiency of students and professors are the most prominent challenges pronounced. A need for a more production-oriented curriculum in the English language preparatory program focusing on speaking and writing skills came out as the major need. It was also observed that the challenges reported by students showed differences across such variables as the academic discipline, L1 background, prior EMI experience and the kind of exam taken to satisfy the university language proficiency criteria (Kamaşak et al., 2021).

Macaro and Akıncıoğlu's (2018) study illustrates positive student views and motivation. Students choose EMI programs to improve their English. They also believe that studying through EMI is beneficial for their professional life. Another study conducted by Kerestecioğlu and Bayyurt (2018) found negative attitudes of content professors towards EMI. Most of participating professors had been teaching in an EMI setting for less than 5 years and none attended any support programs regarding how to teach in English. According to a more recent study conducted with students of an established EMI university, students' views again divide into two contrary camps. The ones who support EMI believe that language of instruction needs to be English mainly due to international employment opportunities and easy

access to wide range of resources. The ones who have concerns think EMI hinders deep comprehension of subject matter. Gender was found to play a significant role in determining student attitude towards EMI, female students having a more positive stance (Çağatay, 2019).

More recently, Ekoç (2020) explored student views. Results show positive student views about getting ready for work life where English is a prerequisite and accessing wider range of resources. The negative views are mostly about students' linguistic challenges and professors' low English language proficiency resulting in ineffective courses. Some other studies conducted in engineering education also yielded contradicting results. Kerestecioğlu and Bayyurt (2018) study revealed that conducting a lesson using English or Turkish completely has no effect on the success rate of students. These results contradict with Kırkgöz (2014, 2018) study which was also conducted with engineering students and found that EMI students' detailed acquisition of content knowledge is largely ineffective unlike the case in Turkish medium instruction (TMI) contexts. Turhan and Kırkgöz (2018), reporting the results of their mixed method study which explored engineering students' and their professors' motivation towards EMI, assert that students being in their first, second, third, or fourth year does not have a significant role defining their motivation. While positive student motivation towards EMI is mostly instrumental, like how EMI helps accessing the global world and improves one's language, professors' motivation depends on various reasons. On a negative note, students believe EMI does not facilitate their subject area learning mainly due to their comprehension difficulties.

## 2 Problem and Purpose

The line of research that investigates stakeholder views of EMI proposes some agreed conclusions about some benefits of EMI, such as accessibility to wider range of resources and better job prospects in a globalized world, and some concerns regarding the issues that stem from low English language proficiency. However, especially the results of well-studied student and content professor perspectives still present some contradicting results and therefore are inconclusive (Macaro, 2018). As established above, the case in the Turkish context is no different and there is a need to study the stakeholder perspectives further to contribute to the local literature.

In addition, the results of the British Council and TEPAV's (West et al., 2015) baseline study which analyzed the state of English in Turkish tertiary education propose that not to sacrifice quality education in universities until Turkish secondary schools produce graduates with better level of English, no new EMI universities should be founded and that EMI programs should be at the graduate rather than undergraduate level. This rather bold assertion needs to be challenged by learning more about the context through the lenses of main stakeholders from as wide range

of universities as possible. Furthermore, as Macaro (2018) highlights English as a foreign language (EFL) teachers play an important role in EMI contexts. However, their role has been underrated, and their attitude and perspective towards EMI have mostly been neglected in the relevant literature.

The main purpose of this study, therefore, was to investigate the perceptions of the main stakeholders, namely undergraduate students, content professors and language instructors of EMI universities in Turkey regarding their attitude towards EMI. Whether there was a difference among their perceptions and whether their demographics have an impact on their orientation were also explored.

## 3 Methodology

### *3.1 Research Design*

This embedded mixed method study relied on both quantitative and qualitative data collected via 'concurrent procedures.' Both types of data were collected simultaneously using Likert scale and open-ended survey questions respectively. Yet the qualitative data was rather "secondary to augment or provide additional sources of information not provided by" the Likert scale survey questions (Creswell, 2014).

### *3.2 Participants*

The participating universities were identified via purposeful sampling. The universe of the study were all EMI universities in Turkey. During the course of this study Turkey housed 206 HEIs (YÖK, 2018). According to the national Measuring, Selection and Placement Center's (ÖSYM) 2018 university selection guidebook, there were only eight universities in Turkey that used EMI completely in all of their faculties and 17 universities mostly used EMI except for one or two TMI faculties. To define the scope of the study, universities with a limit of maximum two TMI faculties were decided for inclusion in the study, which led to 25 universities sampled, hereby referred as "EMI universities" for the sake of practicality. The main stakeholders, namely undergraduate students, CPs and ELIs teaching in the English language preparatory schools of these universities were the targeted participants of the study. Consequently, data were simultaneously collected from 220 undergraduate students, 83 CPs, 46 ELIs from these universities. Yet for ethical reasons, the surveys had a box that they could select if they did not want their data to be used. 15 students, two CPs and one ELI prohibited the use of their data. Table 1 below presents the numbers and percentages of the usable participant data according to city and university type.

**Table 1** Participant cities and university types

| City | Ankara | | Istanbul | | Other | |
|---|---|---|---|---|---|---|
| University type | Foundation | Public | Foundation | Public | Foundation | Public |
| Sts (N = 205) | *155 (75.7%)* | *18 (8.7%)* | *15 (7.3%)* | *15 (7.3%)* | *1 (0.5%)* | *1 (0.5%)* |
| ELIs (N = 45) | *27 (60%)* | *5 (11.1%)* | *13 (28.9%)* | – | – | – |
| CPs (N = 81) | *38 (46.9%)* | *9 (11.1%)* | *20 (24.7%)* | – | *14 (17.3%)* | – |

**Table 2** Distribution of students and CPs according to their academic disciplines

| | Students (N = 205) | | CPs (N = 81) | |
|---|---|---|---|---|
| Discipline | *n* | *%* | *n* | *%* |
| Engineering | *85* | *41.5* | *16* | *19.9* |
| Social and Administrative Sciences | *68* | *33.1* | *32* | *39.5* |
| Education | *10* | *4.9* | *4* | *4.9* |
| Natural Sciences | *16* | *7.8* | *4* | *4.9* |
| Art | *12* | *5.9* | *3* | *3.7* |
| Medical Sciences | – | – | *7* | *8.6* |
| Other | *14* | *6.8* | *15* | *18.5* |
| Total | *205* | *100.0* | *81* | *100.0* |

**Table 3** Academic ranks of CPs

| Academic rank | *n* | *%* |
|---|---|---|
| Instructor | *17* | *21.0* |
| Assistant Professor | *26* | *32.1* |
| Associate Professor | *17* | *21.0* |
| Professor | *21* | *25.9* |
| Total | *81* | *100.0* |

Majority of the students (78%) were in the first 2 years of their studies and 60% ($n$ = 123) had studied in their university's English language preparatory program (Table 2) above lists students' and CPs' academic disciplines.

The distribution of the CPs' academic ranks was almost equal across levels (Table 3).

Additionally, 59.3% of the CPs and 55.6% of the ELIs had more than 10 years of teaching experience in an EMI context. All ELIs ranked their perceived English language proficiency as *good* or *very good* across all language skills, namely reading, listening, writing and speaking. It was the same for CPs except for 2.7% choosing average for listening and 4% for speaking. The majority of students opted for good or very good for each skill as well (Reading 94%, Listening 89%, Writing 75%, and Speaking 65%).

**Table 4** Survey information

| | Background questions | Part 1 | Part 2 |
|---|---|---|---|
| | | 1st scale | 2nd scale |
| | | General attitude towards EMI | EMI teaching/learning experience |
| Students | *Closed items* | *5points Likert items/1open item* | *5points Likert items/1open item* |
| CPs | *Closed items* | *5points Likert items/1open item* | *5points Likert items/1open item* |
| ELIs | *Closed items* | *5points Likert items/1open item* | ***x*** |

## *3.3 Instrumentation*

Surveys were used as the data collection tool to ask questions to "large groups of a population… about a topic" (Saris & Gallhofer, 2014, p. 4). To collect participants' general point of view, questions asking for their opinions, beliefs, preferences and attitudes were asked (Aldridge & Levine, 2001).

The survey previously used by Atik (2010) to explore university students' perceptions of EMI was adopted. Three versions of the survey were created for different stakeholder groups. The reliability checks were conducted using Cronbach's alpha coefficients and all coefficients (between 0.50 and 0.90) were of an acceptable range according to Taber (2017). Table 4 provides more information regarding the parts, scales and type of questions in the surveys.

Each version had two parts. Part 1 had background questions from gender to academic discipline, to perceived English language proficiency asked to all stakeholders. Part 2 had two scales for students and CPs and one scale for ELIs. The second scale about the EMI experience was omitted in the ELIs' survey as they do not teach such courses.

*General attitude towards EMI* scale had three sub-scales in all versions, namely *attitude towards EMI*, *reasons to favor* and *reasons not to favor EMI*. The second scale was about *EMI teaching and learning experiences* of students and CPs, with two sub-scales, *EMI influence on subject learning* and *EMI influence on language improvement*. The same questions were asked from professor's and students' perspective in their respective surveys, i.e. "Students have difficulty asking questions in English" in the CP survey reads "I have difficulty asking questions in English" in the student one.

### 3.4 Data Analysis

The quantitative data were analyzed using descriptive statistics, one-way ANOVA, and independent samples t-tests to investigate the perceptions of the stakeholders, and the differences across groups and sub-groups. Firstly, descriptive statistics were used to reveal perceptions about each sub-scale, and the means of sub-scales and frequencies of answers to individual questions were taken into account. The means of the sub-scales for each group was evaluated by taking the test value as 3. Variances and sample sizes were not equal, and there was no normality. Mean differences of participant groups were analyzed accordingly. Lastly, mean difference between participant groups and sub-scales were analyzed. This provided the answers regarding whether perceptions of the three groups differ significantly.

Qualitative data gathered from the open-ended questions were analyzed using content analysis. This was done by categorizing and coding the responses, which were then grouped in themes as suggested by Dey (2005). Open ended questions produced responses ranging from one or two words to full paragraphs. As a response to the first open ended question "*Please add below if you have any other opinions about EMI"* in total 38 responses were gathered, 14 from students, 15 from CPs and 9 from ELIs. Since it was rather a general question, the answers to the first question was further categorized as having a positive, negative or a neutral approach towards EMI. The second and third open-ended questions asked students and CPs about the positive and negative aspects of EMI. Under positive aspects, there were 140 responses, 91 from students and 49 from CPs. For the negatives, 129 responses came, 80 from students and 49 from CPs.

## 4 Results

### 4.1 Stakeholder General Attitude Towards EMI

Students, CPs and ELIs all have a rather positive attitude towards adopting English as a medium of instruction at tertiary level educational institutions. As illustrated in Table 5 the combined mean scores of the items under 'Attitude towards EMI' sub-scale for each stakeholder group are all over 3 out of 5, students' having the most positive attitude (M = 4.49, SD = 0.66) and the CPs the least positive one (M = 3.92, SD = 1.16).

**Table 5** Perceptions regarding *Attitude towards EMI*

| Sub-scale | Participant group | *n* | M | SD |
|---|---|---|---|---|
| Attitude | Student | *205* | *4.49* | *0.66* |
| | CPs | *81* | *3.92* | *1.16* |
| | ELIs | *45* | *4.29* | *0.98* |
| | Total | *331* | *4.32* | *0.88* |

**Table 6** Items for *Attitude towards EMI*

| Item | Totally agreeing/agreeing (%) | | |
|---|---|---|---|
| | Sts | CPs | ELIs |
| I find instruction in English beneficial | *88.8* | *69.2* | *82.2* |
| Instruction in English is necessary in universities | *81.0* | *60.4* | *71.2* |
| Numerical courses in universities should be conducted in English | *65.8* | *49.4* | *42.2* |
| Verbal courses in universities should be conducted in English | *60.5* | *55.5* | *71.1* |
| Instruction in English should be abolished in all universities | *2.5* | *10.1* | *8.9* |

**Table 7** Perceptions regarding *Reasons to Favor EMI*

| Sub-scale | Participant group | *n* | M | SD |
|---|---|---|---|---|
| Reasons to favor EMI | Sts | *205* | *4.10* | *0.75* |
| | CPs | *81* | *3.76* | *0.93* |
| | ELIs | *45* | *4.12* | *0.89* |
| | Total | *331* | *4.02* | *0.83* |

Responses to individual items (Table 6) under this sub-scale show that all stakeholders find instruction in English beneficial and all groups reject the idea of abolishing instruction in English in all universities. Overall, they believe EMI is more appropriate in the verbal courses.

As to the *Stakeholders' Reasons to Favor EMI,* again all stakeholders have an agreement in terms of having many reasons for adopting EMI. ELIs and students favor EMI a bit more than CPs (Table 7).

Analysis of the stakeholder responses to individual items (Table 8) under this sub-scale show that the majority of stakeholders have positive views for reasons to favor EMI. Great majority believe that *instruction in English improves students' English because it creates an area of use for language.* As to *EMI's contribution to students' cognitive development* while great majority of ELIs (80%) support the view, only around half of CPs (51.9%) think so.

Some of the stakeholder responses to the open-ended question about their attitude towards EMI support the results above and bring some new perspectives. The comments below by CPs support EMI:

*"Turkish terminology in science and technology is not necessary and are not used even if created and therefore EMI cannot be blamed for this"*

*"I think staying in national boundaries will limit the development of science and technology. I find the use of romance words more logical."*

*"EMI is a must, whether we like it or not. Because worldwide communication of science is in English, we cannot avoid it."*

*"Chances of being accepted by universities abroad for graduate studies are obviously higher …if the student is a graduate of an EMI university."*

As presented in Table 9, all stakeholders also have *Reasons not to Favor EMI* with similar mean scores of around 3.5 for each group.

**Table 8** Items for *Reasons to favor EMI*

| Item | Totally agreeing/ agreeing (%) | | |
|---|---|---|---|
| | Sts | CPs | ELIs |
| Instruction in English contributes to students' cognitive development | *68.8* | *51.9* | *80.0* |
| Studying in an institution that teaches in English will make a person earn respect in the community | *71.7* | *60.5* | *71.1* |
| Instruction in English contributes to the introduction of the culture of the target language (e.g. English) | *60.5* | *55.6* | *75.5* |
| Instruction in English improves students' English because it creates an area of use for the language | *87.8* | *76.5* | *82.2* |

**Table 9** Perceptions regarding *Reasons not to Favor EMI*

| Sub-scale | Participant group | *n* | M | SD |
|---|---|---|---|---|
| Reasons not to favor EMI | Student | *205* | *3.51* | *0.99* |
| | CPs | *81* | *3.25* | *1.14* |
| | ELIs | *45* | *3.58* | *0.80* |
| | Total | *331* | *3.46* | *1.01* |

**Table 10** Items for *Reasons not to Favor EMI*

| Item | Totally agreeing/ agreeing (%) | | |
|---|---|---|---|
| | Sts | CPs | ELIs |
| Instruction in English affects students' success in content lessons negatively | *16.1* | *49.3* | *24.5* |
| Instruction in English affects the effectiveness of numerical and verbal lessons negatively | *20.9* | *29.6* | *20.0* |
| Instruction in English limits creativity | *26.3* | *35.8* | *17.8* |
| Instruction in English affects the production of Turkish words in the areas of science and technology negatively | *47.8* | *66.7* | *26.7* |

When individual items under this sub-scale are reviewed more closely, compared to the previous sub-scale, fewer people have reasons for not supporting EMI (Table 10).

Almost half of CPs have more strong views for not supporting, believing that *instruction in English affects students' success in content lessons negatively.* 66.7% of CPs also believe that *instruction in English affects the production of Turkish words in the areas of science and technology negatively.* Around half of the students (47.8%) also support this view.

Most of the CPs' negative comments to the open-ended question were about language issues:

*"It is very difficult to understand EMI lessons"*
*"… the difficulty English terminology creates in understanding Turkish sources."*
*"English level of many academicians are not sufficient enough to teach in English. This eventually affects understanding of students."*

**Table 11** Results of Welch ANOVA

| sub-scale | $df_1$ | $df_2$ | F |
|---|---|---|---|
| Attitude towards EMI | *2* | *91.08* | *8.89** |
| Reasons to favor EMI | *2* | *99.53* | *4.45** |
| Reasons not to favor EMI | *2* | *113.92* | *2.06* |

*$p < 0.05$

*"When native speakers of Turkish are together, discussing academic subjects in English affects the depth of the conversation negatively"*

Students refer to their language preparation and the place of English in society:

*"Education in English can be very difficult for people whose English is not good. There should be a better education in prep school, or these students should be tolerated in the lessons."*

*"English affects the Turkish language as it is seen as an indicator of status"*

For instance, a student says

*"I think English leads to corruption due to society's perspective, glorifying English and seeing it as an indicator of status rather than a means of communication."*

From one ELIs' perspective EMI is

*"…a complete fantasy, especially in a national context like Turkey."*

There are some ELIs sharing the following view:

*"Students mistakenly believe that they can succeed in an EMI program with an intermediate level of English and therefore not take prep program classes seriously."*

In order to measure whether there was a significant difference among perceptions of participating groups regarding their general attitude towards EMI Welch ANOVA was used. The results are presented in Table 11.

As can be seen in Table 11, regarding the attitude towards EMI, there is a statistically significant difference among three groups ($p = 0.00$). In order to see where the mean difference was, Games-Howell post-hoc test was conducted. There is a mean difference between CPs and students ($p = 0.00$) results. Regarding the *reasons to favor EMI*, the Welch ANOVA showed that there was also a statistically significant difference here ($p = 0.01$), and the post-hoc test showed that it was once more between students and CPs. On the other hand, no significant mean difference was found among stakeholder perceptions ($p = 0.13$) about *the reasons not to favor EMI.*

## 5 Stakeholder Perceptions Regarding EMI Experience

Overall, both students and CPs show positive views regarding their EMI experiences (Table 12). Compared to CPs ($M = 3.14$; $SD = 0.96$), students thought more positively about how *EMI influences their learning of subjects* ($M = 4.27$; $SD = 1.01$). The same pattern is observed regarding their views about how *EMI influences English language improvement*. Students show a slightly higher level of positivity

**Table 12** Perceptions regarding *EMI experience*

| Sub-scale | Group | *n* | Mean | SD |
|---|---|---|---|---|
| Influence of EMI on subject learning | Student | *205* | *4.27* | *1.01* |
| | CPs | *81* | *3.14* | *0.96* |
| Influence of EMI on language improvement | Student | *205* | *4.36* | *0.72* |
| | CPs | *81* | *4.10* | *1.04* |

**Table 13** Items for *EMI influence on subject learning*

| Item | Totally agreeing/ agreeing (%) | |
|---|---|---|
| | Sts | CPs |
| The lessons' being English affects the success of students in lessons positively | *38.1* | *24.6* |
| When the lesson is taught in English, students have difficulty grasping the subject | *17.1** | *55.6* |
| Students ask the CP to translate the subjects that are taught in English into Turkish | *10.2** | *40.7* |
| Students have difficulty asking questions in English | *27.3** | *66.6* |
| Students have difficulty answering the oral questions asked in English | *25.4** | *62.9* |
| Students have difficulty answering the written questions asked in English | *5.4** | *46.9* |
| When the CP replies questions in English, students have difficulty understanding their reply | *4.4** | *33.3* |
| Students do not have difficulty making an English summary of a lesson the CP taught in English | *65.8* | *37* |
| Students have difficulty understanding the English resource materials the CP uses in lessons | *8.8** | *37* |
| Learning the terms both in English and Turkish brings an extra burden to students | *25.9* | *24.6* |
| Lessons' being in English makes it difficult for students to remember newly learned terms and concepts | *14.2* | *30.8* |
| The lessons' being in English leads students to learning by memorization | *14.7* | *29.7* |
| Students can only learn the concepts in lessons in Turkish | *3.4* | *7.4* |
| The exams' being held in English affects the success of students negatively | *12.2* | *33.4* |

(M = 4.36; SD = 0.72) compared to CPs (M = 4.1; SD = 1.04). However, it is worth noting that both groups are highly positive overall with means higher than 4.0.

Analysis of the stakeholder responses to individual items (Table 13) about *EMI influence on subject learning* strikingly show that in almost half of the items students and CPs have different perspectives, CPs believing more in the negative influence.

In items with an asterisk (*), while almost half or in some cases more than half of CPs raise concerns, worried student numbers in these items range between 4.4% and 27.3%. Groups show similar views for other items.

Lastly, unlike the comparison of student and CPs views in the above sub-scale, analysis of their responses to individual items (Table 14) about *influence of EMI on*

**Table 14** Items for *EMI influence on language improvement*

| Item | Totally agreeing/ agreeing (%) | |
|---|---|---|
| | Sts | CPs |
| The lessons' being taught in English improves students' Listening skills in English | *90.3* | *79* |
| The lessons' being taught in English improves students' Reading and comprehension skills in English | *89.8* | *81.5* |
| The lessons' being taught in English improves students' Writing skills in English | *75.1* | *72.8* |
| The lessons' being taught in English improves students' Speaking skills in English | *70.8* | *64.2* |
| The lessons' being taught in English prevents students from improving their Turkish | *11.7* | *16* |

**Table 15** Mean difference between students and CPs for sub-scales 4 & 5

| Sub-scale | F | Sig | t. | df | p |
|---|---|---|---|---|---|
| Influence of EMI on subject learning | *0.48* | *0.49* | *8.8* | *154.69* | *0.00* |
| Influence of EMI on language improvement | *7.11* | *0.00* | *2.32* | *284* | *0.04* |

*language improvement* show quite an agreement. Both groups gave highly positive responses with 70–90% agreement to almost all items. Especially the first two items which support the idea that EMI improves students' receptive language skills attracted almost more than 80% agreement from both groups.

An independent samples t-test was conducted to observe the difference between students' and CPs' responses regarding the *influence of EMI on subject learning* and *language improvement* (Table 15).

The results show that there is a statistically significant difference between how students and professors view both *EMI influence on students' learning subjects* ($p = 0.00$) and *EMI influence on language improvement* ($p = 0.04$).

This difference between students' and CPs' perspectives is also evident in the responses given to the open-ended questions which sought participant views regarding the *positive and negative aspects of teaching and learning in an EMI context*. The distribution of themes in these comments are listed in Table 16.

Similar to the trend discussed above, both students and CPs have a lot to say about the relationship between EMI and English language under both positive and negative aspects. According to both groups, *English is both an advantage and a drawback of EMI*. The positive comments are like below:

> *"…. being able to practice English…"*
> *"If a student's English develops, their understanding of the concept also develops." "Given the right conditions it is likely to be positive for students for example accessing to contemporary materials, facilitating cultural exchange etc. etc."*

Negatives are listed as below:

> *"Students are unable to give feedback and communicate in class. They understand less"*

**Table 16** Theme distribution for positive and negative aspects of EMI

| | Positive aspects | | Negative aspects | |
|---|---|---|---|---|
| Themes | Sts | CPs | Sts | CPs |
| English language | *42* | *21* | *40* | *22* |
| Reaching sources | *32* | *17* | *4* | *0* |
| Lesson effectiveness | *0* | *3* | *41* | *20* |
| Academic development | *16* | *5* | *2* | *3* |
| Personal reasons | *11* | *10* | *4* | *4* |
| Globalization | *9* | *7* | *1* | *1* |
| Employment opportunity | *15* | *7* | *3* | *3* |
| Social effect | *2* | *1* | *1* | *1* |

*"Students try to understand the language first before being able to focus on the concept or the course itself"*
*"Due to their low level of English, students are reluctant to speak in lessons"*
*"I do not feel genuine when instructing in a different language than my native one."*
*"I cannot talk about the local concepts…philosophy, jokes… as I wish in a foreign language."*

Another theme which mostly attracted negative comments from both groups was *EMI lesson effectiveness*. For CPs, it was the most frequently mentioned theme among all, and it was mostly attributed to students' low level of English.

*"It is not my problem that students' have low level of English which results in poor lesson effectiveness."*
*"I am interested in teaching my field, not furthering or assessing my students' use of English".*
*"There are some insufficiencies with the lecturers too. They are not proficient in English as well."*
*"English level of many academicians are not sufficient to teach in English. This eventually affects understanding of the students".*
*"If the instructor's English is not sufficient, the course material may not be understood properly".*

It is interesting that students did not mention lesson effectiveness at all as a positive aspect of EMI but many comments came under negatives:

*"I have difficulty in focusing during the lesson"*
*"It creates a barrier in understanding the subjects. Even if a person's language skills are high, even if they get used to using a foreign language, because some concepts are shaped in the mother tongue, it can be difficult to connect the newly learned information with these concepts".*
*"…not understanding the main point of the lessons, memorizing…".*
*"CPs with a low level of English affect the course and our understanding even more negatively."*

Many students and CPs agree that English should be taught more effectively before undergraduate education so that EMI courses can reach their utmost effectiveness.

Another theme which attracted positive comments from both groups was *reaching sources and academic development*.

*"English is the language for science and technology".*
*"EMI creates an environment where the students can have access to all academic resource".*
*"…mostly, scientific papers are in English".*
*"if they know English well, [students] can research more from international resources".*
*"Science and technology are developed in English, so it is easier to follow the developments".*

Students also gave many *personal reasons* talking about the positive aspects of EMI.

*"…being able to think in a different language",*
*"cognitive development"*
*"having a wider perspective of my area and the world".*

## 6 Influence of Demographics on EMI Perceptions

In order to explore whether participants' demographic characteristics shape their perceptions, the data coming from Part 1 of the survey were used. However, not all demographic variables sought attracted the minimum number of cases to draw healthy conclusions. Therefore, only the variables which had enough (N = 26) sample group numbers were used to run the analysis. None of the ELI variables met this condition so they were excluded in the analyses.

To run the analysis, the participants were categorized into two sample groups, and independent samples t-test was used to analyze whether there was a significant mean difference between varying demographic groups. The demographic variables that were analyzed and the participant numbers can be seen in Table 17 for students and Table 18 for CPs.

**Table 17** Student independent variables, sample groups and participant numbers

| Independent variable | Sample groups | *n* |
|---|---|---|
| Gender | Female | *116* |
| | Male | *89* |
| University type | Foundation | *171* |
| | Public | *34* |
| University location | Ankara | *173* |
| | İstanbul | *30* |
| Semester | 1st – 3rd Semester | *104* |
| | 4th – 12th+ Semester | *101* |
| Discipline | Engineering & Natural Sciences | *99* |
| | Social Sciences, Art, & Education | *88* |
| Preparatory school attendance | Yes | *123* |
| | No | *82* |
| Speaking other foreign languages | Yes | *33* |
| | No | *172* |
| Living abroad | Yes | *46* |
| | No | *155* |

**Table 18** CP independent variables, sample groups and participant numbers

| Independent variable | Sample groups | *n* |
|---|---|---|
| Gender | Female | 41 |
| | Male | 39 |
| Discipline | Engineering, Medicinal Studies & Natural Sciences | 26 |
| | Social Sciences, Art, & Education | 39 |
| EMI teaching duration | Less than 10 years | 33 |
| | More than 10 years | 48 |
| Speaking other foreign languages | Yes | 32 |
| | No | 49 |

Normality checks were done using SPSS, and results showed that they deviated from normality. Nevertheless, the analysis was done because non-normality is acceptable since independent samples t-test is robust to non-normality when each sample is above 25 (SPSS, 2020).

As to the *gender*, female students (Mean = 4.13, SD = 1.06) and male students (M = 4.44, SD = .92) have significantly different mean scores about *EMI's influence on learning subjects, t*(203) = 2.20, *p*(0.029). Students who study in a *technical* (Mean = 4.42, SD = .98) department and the ones in a *non-technical department* (Mean = 4.10, SD = 1.05) also have statistically significant difference in their views regarding *EMI influence on learning subjects, t*(185) = 2.06, *p*(.041).

When it comes to the *location of the university*, students living in Ankara (Mean = 4.55, SD = .861) and the ones in Istanbul (Mean = 4.20, SD = .87) have significantly different mean scores, *t*(203) = 2.03, *p*(0.043) about their *attitude towards EMI*.

Students' attending or not *attending English preparatory school, speaking other foreign languages or having lived abroad* do not show any significant difference in their perception of EMI according to scales included in this study. The demographic variables that were analyzed and the participant numbers for each CP groups are given in Table 18.

Results of the *t-tests* suggest that CPs' perceptions of EMI do not differ according to *their years of experience in an EMI setting* and whether they *speak another language or not***.** However, *male* (Mean = 2.91, SD = .89) and *female* (Mean = 3.33, SD = .98) CPs were found to have significantly different perceptions, *t*(78) = 2.02, *p*(.046) regarding *EMI influence on subject learning*. It was also found that whether CPs teach in a *technical* (Mean = 3.54, SD = 1.36) or *a non-technical* (Mean = 4.19, SD = .92) *department* yields different mean scores for CPs' *attitude towards EMI, t*(63) = 2.31, *p*(.024).

## 7 Conclusion and Discussion

Many of the conclusions drawn from this study confirm the findings of similar studies conducted earlier. However, some conclusions contradict with previous results. This study concludes that all participating stakeholders, namely undergraduate students, CPs and ELIs of EMI contexts have an *overall positive perception towards EMI* (Jensen & Thogersen, 2011), the *most positive one belonging to students* (Macaro & Akıncıoğlu, 2018) and the *least to CPs* (Kerestecioğlu & Bayyurt, 2018).

All groups agree that *EMI is the necessity of the today's globalized world* (Sollaway, 2016). They also believe that *EMI increases the status of their universities* (Karakaş, 2016), *helps improve students' English* (Macaro & Akıncıoğlu, 2018; Turhan & Kırkgöz, 2018), *increases graduates' job prospects* (Çağatay, 2019), *prepares them for future work life* (Macaro & Akıncıoğlu, 2018; Ekoç 2020), and as English is the language of science and technology, *it eases access to wide range of academic sources* (Çağatay, 2019; Ekoç 2020).

On the other hand, all stakeholders share some *concerns* revolving around issues regarding *poor English language proficiencies* (Yıldız et al., 2017; Ekoç, 2020) which *hinder students' subject area learning* (Atik, 2010; Kırkgöz, 2014; Turhan & Kırkgöz, 2018; Çağatay, 2019) in a foreign language. CPs raise their concerns most strongly about this issue while students had the least. Although self-reported English language proficiencies are very high for both groups (Jensen & Thogersen, 2011), there are members of either group having concerns regarding each other's language proficiencies (Ekoç, 2020). There are also CPs who believe that some of their colleagues' language skills are not good enough. Both of these groups attribute the poor student language to unsuccessful English language preparatory program curriculum which does not emphasize productive skills as desired (Yıldız et al., 2017; see also chapter "Academic English Language Policies and Practices of English-Medium Instruction Universities in Turkey from Policy Actors' Eyes" for similar findings). Students self-reported language skills confirm this, as well. Some ELIs, on the other hand, think that students do not take their preparatory program courses seriously with the misbelief that intermediate level English is enough to study in an EMI context.

This study concludes that students' *gender* (Çağatay, 2019) and being *a technical or non-technical discipline student* play a role in shaping students' perception regarding the EMI influence on subject learning. Females using a greater variety of language learning strategies and more effectively than males (Erhman & Oxford, 1990; Nyikos, 1990, Oxford, 1995, Sheorey, 1999) and non-technical departments requiring relatively less language skills might explain these results. Another conclusion of the study is that students studying in a university in Istanbul and Ankara had significantly different attitudes towards EMI instruction. Variables which were found not shaping student perceptions are *attending English preparatory school, speaking other foreign language(s)* and *having lived abroad*.

Another conclusion of the study is that CPs' years *of teaching experience in an EMI university*, and their *speaking another foreign language(s)* do not play a role in shaping their perceptions. CPs' *gender* however plays a role in their perceptions as

to *EMI influence on subject learning* and their *teaching in a technical or non-technical department* on their *attitude towards EMI*.

Unlike some previous works, this study concludes that overall stakeholder perceptions suggest that having EMI at tertiary level has a lot of merits and should not be abolished (West et al., 2015). Even the strongest concern raised in this study, the negative influence of EMI on subject learning is not as strong as it was in Kılıçkaya (2006), Kırkgöz (2014) and Turhan and Kırkgöz (2018).

One of the practical implications of this study is that the stakeholder perceptions explored recommend ways to deal with the biggest challenge of EMI, the poor student language proficiency, by improving English preparatory schools' curriculum to focus more on the productive language skills, namely speaking and writing. Turkish Higher Education Quality Council's (2020) *English preparatory schools external evaluation program* which was recently developed for and piloted in EMI universities in Turkey with the hope of increasing the quality and standards in these schools could be another way of guiding these schools in improving their curriculum to better prepare the students for their EMI studies.

It is worth mentioning that the study had some limitations. The aspects of EMI studied in this study are limited to the ones covered in the survey used. Another limitation was that the results are subject to the fact that all data came via the same data collection tool. More varied data collection procedures, i.e. interviews, would have increased the strength of the conclusions drawn. One of the goals of the study was to include ELI's perceptions in the exploration of main stakeholder perspectives. However, the relatively limited number of ELIs participating in the study limited the depth of this analysis both in qualitative and quantitative sense. Additionally, triangulation of data collected from stakeholders could have been further supplemented via classroom observations to confirm some of the results obtained from the quantitative and qualitative data that came directly from the stakeholders. However, due to practical reasons this was not realized.

Further research that would overcome these limitations are highly recommended to bring further insight into stakeholder perceptions regarding the use of EMI in Turkish higher education institutions. Additionally, exploring some additional groups of stakeholders (i.e. administrators, parents, employers, and graduate school professors) perspectives would make this line of research even stronger.

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