Motivation of engineering students and lecturers toward English medium instruction at tertiary level in Turkey

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Abstract

English is an access to a global society (Normark, 2013), which implies studying a specific subject area through English is crucial in today's educational arena. The reason behind this is that English is a motive for universities to gain a global status as Coleman (2006) argued. Thus, the focal point of this study is to reveal motivational variations of students and lecturers toward English-Medium Instruction (EMI) because motivation may be an influential factor determining the success of EMI implementations. To this end, the study was designed as a mixed methods research to reach a deeper understanding of the issue. The participants were mechanical engineering students and lecturers at a state university in Turkey. In this regard, a Likert-type questionnaire was adapted to examine what factors had an impact on motivation of participants toward EMI. For the analyses of quantitative data, descriptive statistics were used to obtain mean and standard deviation scores; and MANOVA test was utilized via inferential statistics to see whether the year of study was a determinant for the motivation of students. Moreover, focus group interviews were conducted with students whilst lecturers were interviewed individually. Qualitative data obtained from interviews were analyzed using inductive content analysis. The results indicated no significant differences among the first, second, third and fourth year students' motivation toward EMI; yet, it was found that the first year students were slightly more motivated toward EMI. Further, instrumental motivation appeared to be more dominant and lecturers' motivation toward EMI varied depending on numerous reasons.

Keywords: English-medium instruction (EMI); motivation; engineering students and lecturers

1. Introduction

Our world has been globalized in recent years and there came up a need for an international language which could enable people from different countries to interact easily. Needless to say this global language has been English, which has gained an important status as an international language. The reasons behind the excessive use of English can be listed under some categories such as economic developments, scientific improvements, the growth of communication tools and the desire for being

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more advanced in technology. In addition, political groupings and power have become one of the most influential reasons behind the spread of English as the global language. In relation to that, the possessor of political and economic power, namely the USA and England with its imperialist policy, have played an important role to make English an international language (Crystal, 2003). One of the fields considerably affected by the internalization of English is the higher education institutions, both public and private universities. According to Coleman (2006), the reason for this is the fact that English is a motive for universities to gain a global status. One of the main reasons for that is most probably the emergence of Bologna Process initiated to make a harmonized higher education area within Europe (Coleman, 2006). According to the policies of Bologna Process initiated in 1999, it was aimed to guarantee a multilingual arena in higher education. However, the targeted multilingual arena has not come into reality. Instead, English could take its place as the global language.

Recently, the so-called Englishization of higher education around the world can be accepted as an obligation for universities to become international in order to attract more and more international students. This makes "internationalization" and "Englishization of higher education" interrelated terms (Coleman, 2006; Phillipson, 2008). When the instruction is in English, the academic prestige, the chances for having international research funds and the numbers of international alumni tend to increase. This situation even leads to local students to be attracted by the universities offering English-medium courses. This case is also true for Turkish universities which try to increase the number of English-medium courses (Sert, 2008).

Predictably, English-medium courses at tertiary level in Turkey are not maintained without any problems related to in-class implementations. In the simplest terms, EMI has been said to make students' content learning harder (Kırkgöz, 2014). In response to this, the present study aims to lead a new way to deeply understand the sources of motivation for students and lecturers toward EMI.

1.1. Literature review

The unstoppable growing of English as the global language and the need to interact with varied people anywhere at any time lead universities to increase their EMI courses in many countries across the world. It should thus be asserted that not only increasing the number of available EMI course is enough, but also it is necessary for universities to consider the quality and possible consequences of their EMI implementations. In parallel with this notion, some studies carried out in different countries are as follows:

Kim's (2014) study conducted in South Korea showed that students were more likely to learn their subject area for some extrinsic reasons. This study may be one of the supporters of the usefulness of EMI because the results were positive although the extrinsic orientations seemed to be more dominant on the part of EMI students. However, it is very normal that scores for extrinsic motivation were higher because students may be willing to be involved in EMI for the sake of getting a good job or making much money in future. Another study conducted on motivation along with L2 proficiency in EMI context by Madileng (2009) in South Africa indicated that EMI students had both extrinsic and intrinsic motivational variables such as gaining new ideas in life or performing better in other subjects. That is, Madileng (2009) reported that both types of motivations were influential for EMI students while Kim (2014) argued about the dominance of extrinsic motivation on EMI students. In a similar vein, Chen and Kraklow's (2014) study revealed that the extrinsic motivation variables were dominant on English learning engagement of EMI students compared to students involved in non-EMI programs.

In terms of attitudes, Chang (2010) investigated the reactions of Taiwanese students and concluded that most of the EMI students did not show any negative attitudes towards EMI and they asserted that

their listening skills started to improve with the help of EMI. This indicates EMI can have the potential to provide some benefits for the language skills of students even if it does not have any explicit aim for the improvement of students' language skills. Identically, Kim (2014) stated that there was a consensus upon the positive effects of EMI on speaking skills of students. Accordingly, it can be interpreted that EMI students had an opportunity to improve their language skills and content knowledge concurrently.

With regard to perspectives of lecturers, Jensen and Thøgersen (2011) reached out some striking conclusions in their study conducted in Denmark. One of them was about not all lecturers were prepared to teach through English. Another finding was that Danish researchers should publish their work in their mother tongue because Danish technical language was in danger of disappearing. Maybe the most striking perspective of lecturers was that they believed students learnt best in the mother tongue. In opposition to these, English was described as an important incentive to learn content and an essential part of the school culture (Normark, 2013). Morell et al. (2014) also reached positive findings about EMI in their study conducted with both lecturers and students. They claimed that EMI provided more academic and professional opportunities and it fostered international relationships.

Regarding motivation of EMI students in Turkish context, Kırkgöz (2005) made a research in Çukurova University and found out both first and final year EMI students perceived that they were strongest in reading and listening, but weaker in writing, and especially weak in speaking. That is, EMI students differed in terms of proficiency in four language skills. She also mentioned that final year EMI students perceived greater strengths in language skills. This shows that experience and process of involving in an EMI setting might play a crucial role in improving linguistic skills of students. Another important finding was that EMI students were in favor of a mixture of integrative and instrumental motivations as in the study of Madileng (2009). According to another study about perceptions toward EMI conducted by Atik (2010), Turkish students were found to support EMI at tertiary level and to hold positive attitudes towards EMI in terms of the improvement of language skills in English; yet, they experienced difficulties in content learning in English. Overall, it was reported in this study that there was a positive link between students' proficiency levels and perceptions towards EMI.

Probably, the most intriguing result about EMI research belonged to Maniraho's (2013) study on motivation and attitudes toward EMI. For most of the respondents, using English to teach/learn was useful; but this was not because it helped in teaching or learning subject area. Instead, EMI was useful because it was a way to teach or learn English. This is very interesting because in essence, EMI is an attempt to promote content learning through a foreign language, namely English.

1.2. Theoretical background

Motivation is a basis for explaining why people do something, how much time they persist doing it and how much difficulty they can handle while doing it. However, it would be wrong to say that variables that characterize the concept of motivation are limited to these aforementioned aspects (the choice, determination and effort) because the concept of motivation is a natural part of human nature that may not be explained with only some simple theories.

According to Dörnyei (1994), there are three levels to explain the motivational variations in a foreign language teaching/learning setting and the first level is "Language Level". This level has two subsystems as Integrative Motivational Subsystem and Instrumental Motivational Subsystem. The former refers to individuals' tendencies into social, cultural or ethnic components in addition to a general interest into the foreign language itself. The latter covers the two most developed categories of extrinsic motivation continuum, namely "identified and integrative regulation". The second level is

"Learner Level" which includes some complicated personality traits that are mainly constituted by "need for achievement and self-confidence". The third level is "Learning Situation Level" which combined three areas as follows:

1) Course-specific motivational components can be associated with teaching methodology, tasks, materials and syllabus. 2) Teacher-specific motivational components are related to the concepts of pleasing the teacher, the extent of teacher authority, feedback and ways for presenting the tasks. 3) Group-specific motivational components are made up of components such as rewarding, group interaction, having a common learning goal, and so on.

As understood, many factors that affect any learning environment have been available in Dörnyei's (1994) framework, including the language that aims to be learnt, the teacher and his/her teaching methods as well as the classroom atmosphere and group dynamics. Considering all these, it was targeted to scrutinize EMI students' and lecturers' motivations from a broader perspective rather than solely taking into account instrumental and integrative motivational dichotomy. In parallel with this notion, three research questions were formulated:

1.3. Research questions

1.   What are the sources for motivation of first, second, third and fourth year engineering students toward EMI?

2.   Is there a significant/meaningful relation between the year of study and motivation of engineering students toward EMI?

3.   What are the sources for motivation of engineering lecturers toward EMI?

2. Method

The study was designed as a mixed methods research. The rationale was to combine qualitative and quantitative approaches in order to minimize the weaknesses and to maximize the strengths. To be more precise, Tashakkori and Creswell (2007) point out that the investigator tries to make inferences by integrating the findings of both quantitative and qualitative approaches. This definition suggests that mixed methods approach gathers the requirements of quantitative and qualitative approaches together in an attempt to interpret the data from different points of views. In parallel with this, Creswell (2003) gives an idea about how complex mixed methods approach is:

> *A mixed methods study involves the collection and analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are given priority, and involve the integration of the data at one or more stages in the process of research.* (p. 212).

Accordingly, the timing of mixing the data, the priority given to both of them and the stage which the integration takes place should be considered to meet the pre-requisites of a good study. Another aspect of mixed methods approach is that it is used to gain broad and deep understanding and interpretation (Johnson et al., 2007). Moreover, to triangulate the identical findings, it is appropriate to mix the quantitative and qualitative methods. Table 1 summarizes the design of the study:

Table 1. Design of the study

Underlying Theory	Theoretical Perspective	Methodology	Methods
At tertiary level, students and lecturers may have different motivational sources toward EMI.	Motivation toward learning/teaching content knowledge through EMI	Mixed Type	Questionnaire Interviews

(adapted from Yuan, 2012, p.102)

As in Table 1, the underlying theory comprised both students' and lecturers' motivations toward EMI. In terms of methodology, mixed type was preferred because the EMI situation in Turkey was expected to be examined in a detailed way using different data collection tools which were questionnaires and interviews for the sake of triangulation and having more valid and reliable results.

2.1. Participants

Participants were randomly chosen from Mechanical Engineering (ME) Department and the sampling groups were constituted of first, second, third and fourth year students. The number of student participants was 125 in total. This size of sampling was approximately 40% of all students at the department. 31 first year, 32 second year, 32 third year and 30 fourth year students participated in the study. Their ages ranged between 19 and 34 but the majority of them were at the age of 22 and 23. In addition, there were 15 lecturers working in the aforementioned department, but 6 of them were volunteer to be involved in the study. The year of experiences ranges between 2 and 26 years. Only one lecturer took courses in relation to EMI in the USA and UK and the other lecturers received PhD degrees from the USA.

2.2. Instruments

Data collection instruments included an adopted questionnaire, individual and focus group interviews; each of which was administered in such a way that the researcher could compare and contrast quantitative and qualitative findings. Details about the instruments are presented in the following sub-sections:

2.2.1. The questionnaire
The questionnaire, designed as a 5 point Likert-type questionnaire for EMI students, contained three sections. Section 1 sought background information about EMI students' gender, age, department, level of English or their perceived proficiency level on using four skills in general English and also in their subject area, the relevant items were chosen from the questionnaire of Kırkgöz (2005). The researcher added extra questions about English use outside the classroom, preparation program and students' perceived English level. Section 2 was designed to reveal "Some General Aspects" for students' motivation toward EMI and there were three subsections named as Motivation at Language Level (Integrative Motivation, Instrumental Motivation), Motivation at Learner Level and Motivation at Learning Situation Level. Integrative and Instrumental Motivation subsections were put together with the items from the questionnaires of Maniraho (2013) and Kırkgöz (2005). Additionally, on the basis of Dörnyei's classification for foreign language motivation (1994), a group of items in relation to Learner Level and Learning Situation Level were added. Finally, Section 3 which was about "Some Specific Aspects for Motivation toward EMI" dealt with students' specific motivation sources toward

EMI such as "Cognitive, Affective and Conative Aspects". With the "Cognitive Aspect", what students thought about EMI was under investigation and "Affective Aspect" was used for discovering students' feelings toward EMI. Lastly, "Conative Aspect" was aiming at exploring students' actions in EMI courses. Subsection 3 was totally adapted from Maniraho (2013). Subsequent to the translation of the English version of the questionnaire into Turkish, three native speakers of Turkish who had also an advanced level of English checked the consistency between the Turkish and English versions to ensure validity. Afterwards, the questionnaire was piloted and the alpha coefficient was found to be .87 indicating that items in the questionnaire were reliable enough for the actual study.

2.2.2.. The interview

Individual interviews were conducted with 6 lecturers whereas there were 4 focus groups; each of which included 4 or 5 students who were at the same year of study. Both interviews included semi-structured questions aiming to discover opinions of participants about what motivated or what did not motivate them toward EMI. Moreover, there were questions searching for detailed information on some specific aspects for participants' motivation toward EMI. Interview questions were in parallel with the items in the questionnaire. Interview questions directed to students and lecturers were also in the same direction so that the researchers could corroborate qualitative and quantitative findings. For the sake of validity, interviews were carried out in Turkish in order to provide participants to express themselves fully and clearly.

2.3. Data collection procedures

The study was conducted in the Spring Term of 2015-2016 Academic Years at a state university in Turkey. This university offers some Bachelor programs which include 100% EMI courses, especially in the Engineering Faculty. The Centre for Foreign Languages (CFL) gives a one-year EAP (English for Academic Purposes) program to prepare students for their future departments where they will be involved in EMI courses (Kırkgöz, 2006). CFL has an important role to play in providing students to have enough Basic English knowledge that they will use in their English-medium departments (Kırkgöz, 2009). The curriculum of CFL includes an integrated skills practice with the help of some course-books and some other extra teaching materials (Kırkgöz, 2006). Within this context, a formal permission was received from the dean of the engineering faculty. First, paper and pencil questionnaires were administered to 125 students from different grades. Second, focus group interviews with 4 or 5 students from different grades were employed. Third, individual interviews were conducted with 6 lecturers. All interviews were audio-recorded on the consent of participants. Throughout the data collection procedure, participants were determined on a volunteer basis.

2.4. Data analysis

The close-ended items involved in the questionnaires were analyzed according to the principles of Descriptive Statistics with the help of Statistical Package for Social Sciences (SPSS, Version 23.0). Via MANOVA test, the first, second, third and fourth year EMI students' responses to the close-ended questions were compared.

To analyze interview data, content analysis was employed. Interviews were transcribed and filed separately. Participants were assigned different codes like "Lecturer or Student A, B, C, D, E, F". After that, the data were read over and over again by taking short notes in order not to ignore every single detail. The focus was on inductive content analysis in which themes emerge from the raw data through repeated examination and comparison. The reason behind the selection of inductive content analysis was because of the fact that inductive content analysis made it easier to establish a connection between the research aims and the transparent main findings from the raw data (Thomas, 2006).

Furthermore, both researchers were involved in the analysis process so that analysis of coders could be compared and coders could decide on concurrent resolutions together to ascertain reliability.

3. Results

3.1. Findings obtained from questionnaires

In accordance with research questions 1 and 2, description and comparison of motivational variations of students toward EMI were revealed through the analysis of questionnaire items via SPSS. Table 2 presents the descriptive statistics and MANOVA results of each motivation level for Grades 1, 2, 3 and 4.

Table 2. Description and comparison of general aspects for motivation toward EMI

	Groups	Number	Mean	SD	df	F	p
Integrative Motivation	Grade 1	31	4.18	0.52	3	.532	.661
	Grade 2	32	4.05	0.52			
	Grade 3	32	4.02	0.44			
	Grade 4	30	4.03	0.77			
Instrumental Motivation	Grade 1	31	4.40	0.49	3	.518	.670
	Grade 2	32	4.22	0.52			
	Grade 3	32	4.31	0.42			
	Grade 4	30	4.27	0.85			
Motivation at Learner Level	Grade 1	31	3.58	0.73	3	.337	.799
	Grade 2	32	3.70	0.72			
	Grade 3	32	3.54	0.69			
	Grade 4	30	3.50	1.04			
Motivation at Learning Situation Level	Grade 1	31	3.83	0.56	3	1.230	.302
	Grade 2	32	3.67	0.65			
	Grade 3	32	3.52	0.74			
	Grade 4	30	3.79	0.88			

Table 2 illustrates that mean scores of participants from different grades for each section were not so much different from each other. This can also be understood when the p scores for each section was examined because each section had a p score over 0.05. That is, there was not a statistically significant difference between the results of each section. With regard to standard deviation scores, Grade 4 had the highest standard deviation scores in each section. This shows that fourth year students had more varied opinions about their motivation toward EMI. It can also be asserted that the highest mean scores for each section belonged to Grade 1 except for "Motivation at Learner Level". For this section, Grade 2 had the highest mean score (3.70); namely, the second year students were the most motivated ones toward EMI as language learners. Another significant finding was that Instrumental Motivation Level was the most motivating level toward EMI for each grade. This means that EMI students were mostly motivated toward EMI because of some pragmatic or extrinsic reasons. Following this,

Integrative Motivation Level was found to be the other most motivating level toward EMI compared to the other levels. As for Motivation at Learning Situation Level, it is seen that the most motivated grade was the first year students as in the other levels; however, the least motivated grade was found to be the third year students. Namely, Grade 3 was the least motivated group about the learning environment in EMI courses. Apart from General Aspects, Table 3 demonstrates the findings in relation to descriptive statistics and MANOVA results of each specific aspect for Grade 1, 2, 3 and 4.

Table 3. Description and comparison of specific aspects for motivation toward EMI

	Groups	Number	Mean	SD	df	F	p
Cognitive Aspect	Grade 1	31	3.54	0.67	3	1.246	.296
	Grade 2	32	3.47	0.61			
	Grade 3	32	3.33	0.51			
	Grade 4	30	3.66	0.95			
Affective Aspect	Grade 1	31	3.31	0.45	3	4.076	.009
	Grade 2	32	3.19	0.38			
	Grade 3	32	3.01	0.26			
	Grade 4	30	3.21	0.28			
Conative Aspect	Grade 1	31	3.61	0.68	3	.376	.771
	Grade 2	32	3.45	0.55			
	Grade 3	32	3.58	0.48			
	Grade 4	30	3.56	0.80			

As Table 3 illustrates, each section in the questionnaire has approximately similar means scores for Grade 1, 2, 3 and 4. In fact, Grade 1 had the highest mean scores in each section and Grade 4 had the highest standard deviation scores except for "Affective Aspect" section. In this section, Grade 1 had the highest standard deviation score (0.45). It is seen that p score in "Affective Aspect" section (0.009) is below 0.05. That is, there can be a meaningful difference between results of Grade 1, 2, 3 and 4. Concerning the other "Cognitive and Conative Aspect" sections, p scores were over 0.05. That means there was not a significant difference between results of Grade 1, 2, 3 and 4 regarding Cognitive and Conative Aspects. Overall, it can be interpreted that "Cognitive and Conative Aspects" were slightly more influential in students' motivation toward EMI than "Affective Aspect", which means thoughts about EMI and actions performed to study content through EMI had more impacts on students' motivation than the impacts of emotions on EMI. Apart from these, total results were also examined regardless of the year of study as shown in Table 4:

Table 4. Total results of sections irrespective to EMI students' year of study

Sections	Mean	SD
Motivation at Language Level (Integrative Motivation)	4.07	0.57
Motivation at Language Level (Instrumental Motivation)	4.30	0.59
Motivation at Learner Level	3.58	0.80
Motivation at Learning Situation Level	3.70	0.72
Cognitive Aspect in Motivation toward EMI	3.50	0.70
Affective Aspect in Motivation toward EMI	3.18	0.37
Conative Aspect in Motivation toward EMI	3.55	0.63

Table 4 summarizes the total results for each section regardless of students' year of study. As seen, the most motivating reasons were associated with "Instrumental Motivation" which had the highest

mean score (4.30) and one of the lowest standard deviation scores (0.59). As for the lowest mean score (3.18), "Affective Aspect" had the least motivating reasons. This section had also the lowest standard deviation score (0.37) which means participants' responses to the items in this section did not differ so much. Following this, Table 5 shows the results of MANOVA test:

Table 5. Description and comparison of overall motivation of students toward EMI

	Groups	Number	Mean	SD	df	F	p
Overall Results	Grade 1	31	3.84	0.39	3	.894	.446
	Grade 2	32	3.72	0.37			
	Grade 3	32	3.66	0.36			
	Grade 4	30	3.77	0.66			
	Total	125	3.74	0.46			

Table 5 suggests that there is not a significant difference between overall motivation of Grade 1, 2, 3 and 4 toward EMI (p≥0.05). In other words, the year of study may not be an influential factor in the motivation level of participants toward EMI. Nevertheless, it can be pointed out that the highest mean score (3.84) belonged to Grade 1 whereas the lowest mean score (3.66) belonged to Grade 3. According to standard deviation scores, Grade 4 had the highest standard deviation score (0.66) which shows that participants from Grade 4 had more differing motivations toward EMI.

3.2. Findings obtained from interviews

3.2.1. Focus group interviews with students

Regarding the feelings toward EMI, participants expressed different feelings such as anger, unhappiness, disappointment, hope and joy. The interesting point was that second year students reported that they had no specific feeling toward EMI because EMI was what should be implemented, particularly in their department. The relevant excerpts about the issue are given below:

If I pay too much attention, I can understand the lecture but at one point, I lose my concentration. This is the same when I study alone at home. Then I feel I do not understand, I stop studying and I become angry. I say to myself why I am studying in this department. (SA, Grade 1)

I do not feel anything special because EMI is a necessity for us. Also, knowing English is not an advantageous factor but it is a truth that engineers who have a good level of English are the popular ones. Moreover, finding a job in international companies across the globe, for example, being involved in EMI is a must. (SH, Grade 2)

I feel joyful because Turkish sources are not sufficient. When we search for some new information, we cannot find them in Turkish sources. Ideas about engineering expressed in English are more meaningful to me. (SQ, Grade 4)

Regarding challenges posed by EMI, participants mentioned that they did not understand content knowledge totally, not speaking in English about their profession, losing concentration, difficulty in note-taking, differences in lecturers' use of English, expensive English materials, having no special dictionary for technical terms and lecturers' fast talk. Statements of two participants represent those challenges:

I could not listen to an English lecture after a certain period of time. For example, I want the lesson to end after 45 minutes. As in listening, I could not take appropriate notes if the lecturer talks too fast in English. This causes me to miss the information in the content. (SG, Grade 2)

In terms of teachers, their fast talk prevents us from taking notes appropriately. Or if lecturers use long sentences with transitions, we are confused. Plus, lecturers' different accents may cause our comprehension level to decrease. (SR, Grade 4)

Pertinent to integrative and instrumental motivation levels of EMI, participants mainly referred to instrumental motivation levels such as having a well-paid job, studying/working abroad or in international companies, making much money, having priority for employment, academic career and respect and a good status. Considering integrative motivation levels, they only mentioned becoming familiar with different cultures, perspectives and identities, improving daily English use and effective communication with foreign colleagues. The interesting point emphasized by both the first and fourth year students was that there was no integrative motivation sources for EMI because they believed there was no connection between English used in their departments and in daily life. Excerpts below shed light into the issue:

I think there is no connection between daily English and our technical English. Therefore, EMI is not helpful for us to make interactions with people outside school. (SO, Grade 4)

In Turkey, I do not think that there is a chance to communicate with various people in English but when I was an ERASMUS student, I realized that I could interact with foreign people in English easily. This could be thanks to EMI at the department. (SK, Grade 3)

I want to be an academician and for this, EMI is a good chance. I also believe EMI will provide us respect from other people in business life. For example, even while trying to find a company where we can complete our industrial training, companies want us to have a good level of English. (SH, Grade 2)

In relation to effects of EMI on intellectual development, all participants without any exception were of the opinion that EMI was beneficial for their intellectual development:

EMI makes things harder first but it is beneficial in the long term. Learning content through a second language improves intelligence. (SK, Grade 3)

As for the effects of learning/teaching environment on EMI, participants generally emphasized the importance of lecturers' behaviours. To exemplify, lecturers might not adopt language according to students' level, encourage or motivate students, not use body language to clarify meaning, not lead them to discuss meaning instead of memorization. All these inevitably affected students' motivation toward EMI negatively. Regarding peers, participants suggested that it could be motivating if their peers spoke in English in the classroom. As to materials, there was a consensus that English materials were easy to find but expensive. Excerpts below illustrate these:

The most important thing is the teaching skills of our teachers. I mean teaching skills do not depend on how teachers are successful academically. They should know how to present the content in a foreign language. (SL, Grade 3)

Teachers just give the information and do not want us to discuss or comment. This leads us to memorize. (SM, Grade 3)

When a friend asks a question in English, this encourages me. I say to myself that I can achieve talking in English about my field of study if my peer can do this. The negative thing is that students are not good at English and teachers do not generally encourage us to speak English. (SQ, Grade 4)

There are lots of English sources that we can use but most of them are really expensive. (SG, Grade 2)

In relation to learning/teaching strategies in EMI courses, findings show that participants primarily used some certain learning strategies such as translation, reviewing the content, note-taking/writing,

audio-recording of the lectures, reading academic articles, memorization, being active in the lessons and using visual aids.

We audio-record the lectures. Then, we transcribe what the lecturers teach from the recording because sometimes it is difficult to take notes in the lesson. Especially in verbal lessons, I like to write and re-write the information in my own words. (SG, Grade 2)

There are numerous variables that have an impact upon the motivation of university students toward EMI. Even the participants' level of study are different, there can be some identical opinions and comments about EMI. Thereof, such a complicated issue as motivational levels and aspects should not be neglected if the aim is to improve the quality of EMI courses.

3.2.2. Interviews with lecturers

Five themes similar to what was found in focus-group interviews with students emerged in total. In accordance with feelings toward EMI, lecturers highlighted that they could be demotivated, unsatisfied, doubtful or happy depending on what they experienced in EMI courses as demonstrated in excerpts below:

I am not sure whether students understand me or not when I teach the content even in Turkish. For this reason, I switch to Turkish in verbal courses if there is a critical point to teach. (LC)

I am happy to teach through English because all sources are already available in English… (LF)

When challenges of EMI are considered, lecturers mentioned difficulties experienced because of code-switching, curriculum, preparation for courses and demotivated or non-reactive students. Excerpts below can be an explanation for the issue:

I may not be sure about the time when I should make code-switching and my accent may cause students not to be able to understand the content well. Especially in verbal lessons, language is a challenge for us because there are so many new terms to be explained. I try to compensate for the language-related problems by using visuals. (LA)

The low motivation level of students toward EMI is the most challenging thing for me. Students' motivation level is low because they are aware of difficulties they have in EMI courses. Therefore, I try to use shorter and clearer sentences in order not to confuse them with complicated sentences … (LF).

As for integrative and instrumental motivation levels of EMI, lecturers referred to instrumental reasons more than integrative ones. They believed that it was easier to review literature in English, to read or write English articles, to give English presentations, to find a good job and to study or work abroad. With respect to integrative reasons, they suggested that EMI provided them to interact with people speaking English, to gain different perspectives and to improve their English.

It provides me to gain different perspectives. I can easily understand different cultures and this helps me broaden my horizon. (LD)

English is the world language and it is necessary for finding a good and well-paid job. English and EMI are very vital for me because they help me write English articles and I can make academic interactions in international conferences (LD).

In terms of effects of learning/teaching environment on EMI, lecturers were generally positive about their own teaching skills in English whereas they were not content with their students' English language skills and motivation level. As to materials, they agreed with students on the idea that it was easier to find English materials. Statements of lecturers related to this issue are as in below:

…I love teaching through English so I can motivate myself on my own... (LF)

...Students demotivate me because they are uninterested and they give up at once. I cannot make them feel curious about the subjects unfortunately. (LD)

Materials are easy to find and they are really well-prepared... (LB)

Lastly, for learning/teaching strategies in EMI courses, lecturers pointed out that they frequently used PowerPoint slides, visuals, animations and lecturing technique. They also stated that their teaching strategies would not change if they had to teach through Turkish as in the excerpt below:

My teaching strategies do not change. I talk in the classroom mostly. I use PowerPoint slides and animations. It is more like lecturing. I give special importance to visuals in order to make the content simpler and to erase the language-related problems because students understand better if there are visuals and formulas on the board, I believe. (LF)

Overall, interview findings of students and lecturers are in consistency in respect to instrumental and integrative motivation levels of EMI, effects of learning/teaching environment and challenges of EMI to a great extent.

4. Discussion

Based on the findings, students in all groups seemed to be mostly motivated by both integrative and instrumental reasons toward EMI as in the studies of Kırkgöz (2005), Tabaro (2015) and Chen and Kraklow (2014). This finding confirmed by questionnaire results might not be in accordance with interview results because interview results showed that both EMI students and lecturers referred to instrumental reasons to a great extent. This may point to the fact that extrinsic or pragmatic reasons were dominant in the motivation of students and lecturers.

Appertaining to cognitive, affective and conative aspects, cognitive and conative aspects seemed to influence the student's motivation slightly more than affective aspect. That is, most of the students in all groups thought that EMI was good for their country at large as mentioned in the studies of Normark (2013) and Biggs (1990). They were in the idea that EMI provided countries to have access to the global world. This could be associated with cognitive aspect. Besides, it was found out that EMI helped students learn English fast and this was related to conative aspect. Similar to that, Maniraho (2013) claims that EMI was more suitable for language learning, in fact it was a way to teach/learn language. Contrarily, students mostly were not in the idea that EMI facilitated their work. Interestingly, they believed that EMI made easier for them to learn English but they did not believe that EMI was a facilitator for their subject area. This finding is in consistency with the notion that EMI made understanding the content in English harder (Arkın, 2013; Atik, 2010; Kırkgöz, 2014; Wilkinson, 2005). However, Morell et al. (2014) proposed that EMI fostered academic and professional development but the point was that people needed more English training.

In terms of Affective Aspect, it is seen that all groups of students were mostly motivated toward EMI thanks to the reasons such as chance to use English and improvement of their communication skills. In relation to this, Kırkgöz (2015) found out that final year students felt themselves strong in linguistic skills such as reading, writing, listening and speaking. Identically, Kim (2014) concluded that there was a positive relation between the effectiveness of EMI and students' English speaking abilities. The least motivating reasons about Affective Aspect were linked to being angry and being unsure of oneself. That is, students might feel angry, disappointed or unsure about EMI from time to time.

Feelings in relation to EMI were diverse and depended on what students experienced in EMI courses. The most common feeling was anger because of not understanding the content knowledge,

failing in EMI courses and losing concentration. In spite of these, they could feel hopeful about their success in dealing with EMI courses and they could feel joyful about EMI because the content would be more meaningful if presented in English. They could also feel joyful if lecturers motivated them or if they felt their English language skills were improving constantly. The only differing feelings about EMI belonged to the second year students. They asserted that they had no special feelings about EMI because EMI was a necessity. That is to say, EMI was what should be applied in all educational settings. The reason for this may be because the better understanding of internationally published books and articles was possible thanks to EMI (Zare-ee & Gholami, 2013).

All participants in focus-group interviews underlined the fact that EMI was beneficial for their cognitive development as Probyn (2010) mentioned that lecturers could use various teaching strategies to mediate students' cognitive needs. However, lecturers were found to talk much and be more active than students in EMI courses Relatedly, Kyeyune (2010) argued that teacher talk domination should be abandoned because it prevents a healthy communication between students and lecturers resulting in negative effects on learning (Probyn, 2010). Also, the third year students mentioned that lecturers' way of teaching led them to memorize information, which is similar to what was found in the study of Kırkgöz (2014). At this point, it should be stressed that EMI lecturers should be given pedagogical support to encourage student talk (Vu & Burns, 2014). In other words, lecturers should be trained for effective lecturing in English (Başıbek, et. al, 2013) or they may be assisted in terms of effective teaching strategies that could be used in EMI courses.

In relation to findings from interviews with lecturers, they were found to be not satisfied with their students' linguistic skills, which is in the same vein with Cho's (2012) consideration that implementation of EMI in an EFL context may be ineffective owing to both lecturers' and students' limited command of English. Correspondingly, EMI may be an ineffective way to teach because of linguistic limitations resulting from clarity and accuracy problems in teaching through English (Vinke, et al., 1998). In spite of these, lecturers believed that English sources were well-prepared and numerous; thereof, should be used instead of Turkish sources. Concordantly, Zare-ee and Ggolami (2013) supported the idea that EMI may be beneficial for understanding international books and articles and it also provides to share knowledge with the world because English has a status as an international language. Nevertheless, Jensen and Thogersen (2011) who said that lecturers were not prepared to teach EMI courses and this may be acceptable for the present study because students were of the opinion that lecturers could alter their way of teaching. To exemplify, lecturers' code-switching might hinder students' understanding the content as Kyenune (2010) proposed that switch to mother tongue was not useful. All in all, it can be suggested that lecturers use a wide range of teaching strategies according to Probyn (2010) rather than constantly resorting to PowerPoint slides.

5. Conclusions and Suggestions

The focal point of this study was to examine students' and lecturers' motivation toward EMI in terms of different aspects and fundamental findings indicate that students need to be more encouraged to improve their English communication skills, especially writing and speaking skills in their subject area. For this, lecturers should try to create a motivating and supportive environment in the classroom. Also, the preparatory school has so many things to do to help students gain sufficient linguistic skills in learning through English. Most especially, language courses should be focused on how to write and speak in English efficiently. Specifically, writing in English can pose some problems such as finding the suitable words from the engineering terminology. It is seen that lecturers should focus on productive skills more.

As the present study suggested that teacher talk was more dominant in EMI courses, lecturers should concentrate more on students' speaking skills rather than just making them to listen to lectures without doing anything. That is, the interaction in the classroom should be mutual. If it becomes mutual, then students could feel themselves successful in terms of English use in EMI courses. Inevitably, this will make students have positive perceptions and emotions toward EMI because they need to be aware of the vitality of their feelings toward EMI. If they have positive feelings, then they can be more relaxed and happier to be involved in EMI courses. To achieve this, especially EMI students can be given meaningful tasks in which they use English and content knowledge. If they do so, this may directly or indirectly increase their motivation in learning through English.

To sum up, the present study mainly demonstrates that there is an urgent need to re-regulate the current EMI policy in Turkey. Firstly, it could be made possible to implement EMI in other education levels after necessary regulations are completed for the basis of EMI. Related to this, language courses in the preparatory programs can be reshaped according to the pre-requisites of EMI which is offered in departments. These two points are to provide students to have a sufficient level of English because if they do, then they become more qualified in their specific study area and this directly affects their motivation positively. Moreover, institutional support might be necessary for long-term success in contexts where English is the medium of instruction (Paseka, 2000). Otherwise, EMI implementations may be ineffective if students' proficiency level of English is limited (Cho, 2012).

Note: This article is a modified version of the MA thesis entitled "An Investigation into Motivation of Engineering Students and Lecturers toward English Medium Instruction at Tertiary Level in Turkey" (Turhan, 2017).

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Türkiye'de yükseköğretim düzeyinde mühendislik öğrencileri ve öğretim elemanlarının İngiliz dilinde öğretime karşı motivasyonları

Öz

Normark'a (2013) göre İngilizce'nin evrensel bir toplum düzeyine ulaşma aracı olması günümüz eğitim alanında belli bir konuyu İngiliz dilinde çalışmanın ne kadar önemli olduğunu göstermektedir. Bunun sebebi ise İngilizce'nin üniversitelerin evrensel bir statü kazanması için bir motivasyon kaynağı olmasıdır (Coleman, 2006). Bu nedenle bu çalışmanın odak noktası öğrencilerin ve öğretim elemanlarının İngiliz dilinde öğretime karşı olan motivasyon değişimlerini açığa çıkarmaktır çünkü motivasyon İngiliz dilinde öğretim uygulamalarının başarısında belirleyici bir etken olabilir. Bu amaçla konuyla ilgili derin bir anlayış elde etmek adına bu çalışma karma yöntem araştırması olarak tasarlanmıştır. Katılımcılar Türkiye'de bir devlet üniversitendeki makine mühendisliği bölümü öğrencileri ve öğretim elemanlarıdır. Bu bağlamda katılımcıların İngiliz dilinde öğretime karşı motivasyonlarını etkileyen unsurları incelemek için likert tipi bir anket adapte edilmiştir. Nicel verilerin analizinde ortalama ve standart sapma değerlerine ulaşmak için "Betimleyici İstatistik" ve öğrencelerin motivasyonunda kaçıncı sınıf olduklarının belirleyici bir etken olup olmadığını saptamak içinse "Yorumlayıcı İstatistik" yöntemlerinden MANOVA testi uygulanmıştır. Ayrıca, öğrencilerle odak grup görüşmeleri ve öğretim elemanları ile de bireysel görüşmeler gerçekleştirilmiştir. Görüşmelerden elde edilen nitel veriler tümevarımsal içerik analizi yoluyla analiz edilmiştir. Sonuçlar birinci, ikinci, üçüncü ve dördüncü sınıf öğrencilerinin İngiliz dilinde öğretime karşı motivasyonları arasında önemli bir fark olmadığını gösterse de birinci sınıf öğrencilerinin az da olsa İngiliz dilinde öğretime karşı daha motive oldukları tespit edilmiştir. Bunun yanı sıra araçsal

motivasyon daha baskın olabilmektedir ve öğretim elemanlarının İngiliz dilinde öğretime karşı motivasyonları çeşitli sebeplere göre farklılaşmaktadır.

Anahtar sözcükler: İngiliz dilinde öğretim; motivasyon; mühendislik öğrencileri ve öğretim elemanları

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