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THE EVALUATION OF ENGLISH FOR SPECIFIC PURPOSES (ESP) PROGRAM AT AN ENGINEERING FACULTY AT A PRIVATE UNIVERSITY IN TURKEY

Abstract: This study aims to evaluate the English for Specific Purposes (ESP) program at the engineering faculty at Toros University in Turkey. The research was based on Hutchinson and Waters' (1987) framework for ESP, and multiple sources of data collection were used. The participants of this study were 66 engineering faculty students. The study, the abridged version of the MA thesis conducted in 2018-2019 Academic Year, demonstrated that the main objective of the ESP program is to develop personal strategies for reviewing new related vocabulary, to use vocabulary in a variety of academic speaking, listening, writing and reading activities. The students' needs were grouped into three categories which are occupational, social and educational. The primary need of the engineering students is the expansion of vocabulary because they are unfamiliar with the terminology of their future professions. The majority of the students believed they were competent in grammar but needed to develop their vocabulary. Most of the students wanted to use a textbook explicitly prepared for their major study area.

Keywords: English *for specific purposes (ESP), ELT, Needs analysis.*

INTRODUCTION

Hutchinson and Waters (1987) stated that as English became the acknowledged international language of trade and technology, it created a new group of learners who had a purpose for language learning. Therefore, these requirements and demands have resulted in the development of one aspect of English language learning, English for Specific Purposes (ESP). It is possible to say that, ESP is an approach to language teaching, which is based on learner needs and the basis of all ESP is the simple question: Why does this learner need to learn a foreign language? (Hutchinson & Waters, 1987). The basis of the philosophy of ESP is to fulfil the specific needs of learners as much as possible (Robinson, 1991). It can be said that ESP courses should not be conducted without needs analysis, either formal or informal.

The review of engineering literature and ESP may imply that engineering specifically requires English as an instrument of communication. As evidenced by the large volume of reports related to English, English is predominantly the foreign language in use. According to Bosher and Smalkoski (2002); if a course is expected to succeed, ESP and needs analysis literature specify that learner needs must be addressed.

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By researching the views of engineering students at Toros University Engineering Faculty through a questionnaire, semi-structured face to face interviews, and reflection papers, this mixed-method study enabled the instructors to prepare a more effective syllabus for future use and also contributed to other instructors who are interested in improving themselves in the field of ESP, and ESP related issues.

Origin of ESP

As Dudley-Evans and St John (1998) stated, the ESP movement started to bloom as a result of improvements in the global economy in the 1950s and 1960s, technology and science advancement, increase in the use of English as the international language of business, technology and science, increase in the economic capability of numerous oil-rich nations and growing numbers of international students studying in Australia, USA and the UK. This ever-increasing interest in English study drove to the development of the domain of ELT, which is primarily concerned with the teaching of general English.

According to Hutchinson and Waters (1987) in the ESP context, the impact of historical incidents arose from many people across the world who wanted to learn English because it was the major language for the areas of science, technology and business. Hutchinson and Waters (1987) also pointed out that ESP emerged in English Language Teaching from the learners' language needs according to their professions or job descriptions. They have also considered ESP to be a language teaching approach which bases all decisions regarding content and method to the learner's reasons for learning the language. Hutchinson and Waters have been supported by Strevens (1988) who stated that ESP is a specific case of the general category of significant-purpose language training and that the same principles apply regardless the language being learnt and taught.

Definition of ESP

The definition of English for Specific Purposes (ESP) appeared as a conceptual phrase in the literature in the 1960s. Hutchinson and Waters (1987) considered ESP to be a language teaching approach, rather than a product, which means that ESP does not concern a particular type of language, teaching material or methodology. ESP bases all decisions regarding content and method to the learner's reasons for learning the language. Gatehouse (2001) states that in the ESP syllabus, unique language collection related to the specific aims required from the learners is equipped in the teaching content.

Definition of EGP

ESP is compared with English for General Purposes (EGP). EGP can be defined as teaching English as a second language and other subjects for educational purposes. There is usually no urgent demand for learners to use English for real communicative aims in this type of learning. On the other hand, ESP can be described as teaching English for particular learners with some specific educational and vocational purposes. ESP is learner and learning-centred, with a notion and inclination for communicative proficiency. Gatehouse (2001) states that ESP uses methodology and activities of the discipline it teaches by concentrating on the language suitable for these activities to meet the learners' particular needs. Hutchinson and Waters (1987) explain that ESP, as a particular approach to language teaching, relies on all decisions about method and content to the learner's reasons for learning the language.

Classification of ESP

Hutchinson and Waters' (1987) ELT Tree classifies ESP into three branches: English for business and economics, English for social science and English for technology and science. English for technology and science is then categorized into two branches: English for academic purposes (EAP) and English for occupational purposes (EOP). These two branches are suggested to be only different in a situational context. Although Hutchinson and Waters (1987) do not distinguish between EAP and EOP, Cummins (2008) makes a more explicit contrast between the two phrases. Cummins (2008) stated that while the objective of EAP is providing academic competence, EOP's aim is the development of language in social skills. Moreover, another target of EOP learners is communicating with co-workers and friends in daily life.

In the 21st century, ESP researchers tend to define ESP based on the learners' needs for their subject-specific work and experiences. ESP has been explained by Basturkmen (2003) as related to the needs of the language use, which learners will come across in their particular working or study-related situation. Another similar statement has been expressed by Master (2005); ESP concentrates on the significance of numerous aspects in the real language situations which language learners will face. Dudley-Evans and St. John's (1998) definition of ESP was complied with by Johns and Salmani (2015), they supported the opinion that when ESP is relevant to adult learners' academic and profes. They contexts, it becomes the most productive.

Basturkmen's (2010) ESP variability is; ESP derives from the range of fields that ESP courses are developed, such as general to specific (for example, English for hotel receptionists), ESP derives from the diverged relationships the ESP learners have with their future community of practice. ESP derives from differences in how well-known the target disciplines and professions are to the ESP instructors.

ESP descriptions mentioned above appear to concentrate mainly on three fundamental notions: the particular language required, the learners' particular aims for learning and the particular settings in which language is used and taught, regardless of whether in scholarly or occupational settings. These descriptions also feature constant and variable characteristics.

Teaching Approaches for ESP

Robinson (1991) points out that traditionally ESP teaching concentrates on learning the language for expert communication in a particular area. The traditional approach interfaces the language with the subject matter of the learners' future profession. The subject matter is utilized for learning language structures and contributes to the background for the acquisition of these language structures. Conventional ESP teaching methodologies are concerned with individual language skills and aspects such as sentence structure and vocabulary since they can intervene with the learners' necessary language skills. In ESP, the significance of teaching grammar and vocabulary has been broadly acknowledged by numerous researchers (Coxhead, 2013; Dudley-Evans & St. John, 1998; Zhou, 2009). This approach does not require the learners to gain new information and skills directly identified with their discipline, yet to obtain the future language's language structures for the future discipline. The subject matter can be in related fields as science, innovation or medicine. Respectively, the conventional ESP approach is accepted to be frequently appropriate for the lower level language learners at the university because they have inadequate English knowledge and subject matter in their own

ESP field (Tarnopolsky, 2013). This supports Dudley-Evans and St John's (1998) idea that ESP can be utilized with beginner-level learners.

Tarnopolsky (2013), emphasized that ESP teaching approaches at tertiary levels in non-English speaking countries have currently moved from essential language concentration for expert communication to the incorporation of language with the subject matter of the future professions, including the incorporation of learning the objective language and the objective professional subject matter. This can be observed in two methods: content-based instruction and content and language integrated learning. These approaches are more integrated approaches to ESP.

According to Tarnopolsky (2013), content-based instruction approach adjusts language teaching and content teaching by concentrating mainly on the language. Brinton (2013) states that it can be said that this approach incorporates reading, speaking, listening and speaking for professional purposes into the teaching and learning phases. Robinson (1991) adds that functional and thematic syllabi concentrating on activities with the appropriate language and relevant content to the significant field or profession are used with this approach. Liew and Khor (2014) argue that the primary concern of content-based instruction is learning the language. To suit the learner's level, the subject content is mostly accustomed and simplified.

Content and language integrated learning approach are one of the developments of integrated ESP approaches. With the social and political globalization of English, this approach has become prominent in higher education over Europe since the 1990s (Arnó-Macià&Mancho-Barés, 2015; Coyle, 2012; Taillefer, 2013). Arnó-Macià and Mancho-Barés (2015) state that the students can learn the language naturally with the help of content. By mastering the language, the learners can access their major subject matters as well. They also add that to help learners master the content, ESP instructors implement scaffolding strategies, without modifying much of its content level compared to content-based instruction. However, studies carried out by Tarnopolsky (2013) and Rosa Maria Jimenez Catalan and Fontecha (2015) have demonstrated that learners should have necessary language skills in English, vocabulary or syntax should not be a challenge for them and they should be able to read and write at a minimum level.

Nonetheless, the main limitations of content and language integrated learning have been emphasized by many academics, as explained by Tarnopolsky (2013) and Aguilar and Muñoz (2014). The first issue is that challenging objectives, subject content, and linguistic development cannot necessarily be achieved by an integrated ESP course because the language's concentration is frequently reduced once the subject content is integrated. The second issue which is supported by many studies is that if the ESP course does not provide enough language activity for linguistic development, learners with low levels of English proficiency cannot benefit from the integrated approach. One of the other issues with ESP discussed by Arnó-Macià and Mancho-Barés (2015) was that in the integrated teaching approach, the ESP instructors' role might become a secondary role to the content instructors. In his study, Rau (2021) highlighted the very importance of component analysis to be useful to writing instructors as a basis for a rapid understanding of how research articles differ, specifically in the engineering domain, reducing the time necessary to develop research-based curricula for other fields.

Teaching Language Skills in EGP and ESP

Chalikandy (2013) points out that while in conventional EGP courses reading, writing, listening and speaking skills are integrated, conventional ESP courses often teach particular language skills with the specific pattern needed in the target situation. Many scholars (Bojovic, 2006; Dudley-Evans & St. John, 1998; Fiorito) ESP courses concentrate on teaching language skills that are the most needed by the learners, which are revealed with a needs analysis and the teaching methods and courses are adjusted accordingly. In studies conducted by researches around the world, it has been found that different disciplines need different skills. Zohoorian (2015) has revealed that computer engineering students in Iranian universities need writing and speaking skills. Alsamani and Daif-Allah (2016) have emphasized that computer science and information technology students in Saudi Arabia need vocabulary. Researchers Spence and Liu (2013) from Taiwan, Hyun Hyo (2013) from Korea and Kaewpet (2009a) from Thailand have suggested that engineering students in their countries need communication skills. Taghizadeh and Namayandeh (2020) also emphasized the need for strategy training to improve the listening skill of engineering undergraduate students. The findings in their study also displayed that undergraduate students could not use all the strategies efficiently, and they used cognitive strategies more than socio-affective and metacognitive strategies. The most frequent problems mentioned were novel or insufficient vocabulary and the speed of delivery of scripts.

Needs Analysis in ESP Contexts

At the first stages of the ESP procedures (the 1960s and early 1970), needs analysis focused more on measuring the communicative needs of language learners and the techniques to reach specific aims of teaching. However, today needs analysis endeavour to collect information about the learners to define the target situation and the environment of studying ESP. Needs analysis refers to the activities involved in collecting the necessary information for developing an active curriculum that meets students' particular needs.

As ESP courses rely on needs analysis, and the learning aims are more precise than general ESL courses, learners will be more motivated to learn about topics and texts related to their own studies or field. Linguistic knowledge objectives correspond to language analysis, and awareness of the systematic aspects of language and knowledge objectives includes the control of socio-cultural rules (mastery of the social norms, values and orientations, and the ability to identify culturally significant facts). Proficiency objectives indicate the mastery of the four language skills: reading, writing, listening and speaking. Affective objectives are related to the improvement of positive feelings towards the subjects of the study. Transfer objectives are about the ability to generalize from the learned knowledge from each context.

Needs analysis in language learning is proposed by Graves and Xu (2000) as the process of systematic and continuous collection of information about the students' requirements and preferences, interpretation of the collected data, and finally decision-making to meet these requirements. In various social and educational environments of adult language learners in which languages are used, one can observe their language needs. However, needs and motivation are different from each other in that the former stem from the reality of the language domains and whether the language is known or not affects this demand. At the same time, the latter is about the attitudes and level of willingness towards making an effort to learn the language. With this respect, setting profound objectives is made possible through exploration and the inquiry of the learners' needs so that which steps to follow would be determined. The main concern of needs analysis in an educational sense is transforming the

needs into goals and, consequently, into appropriate activities, materials and techniques in the suitable program (Brown, 2009).

This study sought answers to the following research questions:
1) What are the goals and objectives of the ESP program in engineering education at Toros University?
2) What are the engineering students' needs as perceived by:
   a. Administrator or Program designers?
   b. ESP instructors?
   c. Subject specialist teachers/instructors?
3) Are the objectives appropriate to the needs of the students of engineering? What are the students', instructors', and administrators' views about the ESP program?

METHODOLOGY

This study focuses on the findings of a thesis on the evaluation of English for Specific Purposes (ESP) program at the engineering faculty of a private university.

For collecting data, explanatory mixed methods design was applied to provide a clearer insight into the research problems. Creswell (2014) points out that in explanatory mixed methods design, the quantitative data is collected initially. After that, qualitative data is collected to help to explain the results of the quantitative data.

The study was conducted at the Engineering Faculty of Toros University. The students of the engineering faculty have three hours of compulsory English classes every week. The assessment is done by one midterm exam, one oral presentation and one final exam throughout the semester. All the exams are prepared by the instructors of the course. These compulsory English classes continue for four semesters during engineering education. Before their education at the engineering faculty, the students also attend a compulsory preparatory program which covers all four language skills.

Participants and Data Collection Tools

This study was conducted with engineering faculty students. 56 male and ten female, a total of 66 engineering faculty students, participated in the study.

Both qualitative and quantitative data were required to make a statistical generalization and obtain the perceptions and experiences of engineering students of the ESP program. The quantitative data was collected through a Likert-scale type of questions in a questionnaire. The qualitative data was obtained via open-ended questions in the questionnaire, semi-structured face to face interviews and reflection papers retrieved from the students.

The questionnaire utilized in the study includes a Likert-scale type of questions and eight open-ended questions to understand the students' perceptions of ESP and ESP related issues. Dittrich, Francis, Hatzinger and Katzenbeisser (2007) have stated that Likert type data is both an essential tool in psychology and social surveys and an ever-present method to collect data.

Since face to face interactions enable to broaden freedom of expressing thoughts, six-ten voluntary participants of the engineering faculty students were selected on a volunteer basis to obtain more in-depth information about their perceptions and experiences on ESP and ESP

related issues. According to Longhurst (2016), a semi-structured interview is an interchange of words in which an interviewer attempts to obtain information from an interviewee by asking questions. Participants are supposed to respond to some pre-determined questions and be flexible in the interview (Verma & Mallick, 1999). Therefore, the questions on the interview were based on the responses of the questionnaire. All participants were asked the same pre-determined questions in the same order to be consistent. Although the interview questions were in line with the ones in the questionnaire, the interview questions' purpose was to obtain more detailed answers about ESP and ESP related issues.

All participants of the study were asked to write reflections papers about their ESP classes. Part of the qualitative data was obtained from the 66 reflection papers. The reflection papers were prepared with eight guiding questions. These questions were prepared to aid the students in expressing their thoughts and to ensure that the issues researched in this study were discussed. For the analysis of reflection papers, thematic analysis was employed.

Data Analysis

To analyze quantitative data, SPSS 20 was utilized, so the perceptions and experiences of English language instructors and engineering faculty students on the ESP and ESP related issues were obtained. To analyze qualitative data, thematic analysis steps of Creswell (2012) were used in the study. These steps are: 1) *preparation of the data, 2) defining the analysis units, 3) category improving and a coding scheme, 4) assessing the consistency of coding,* and 5) *conclusion drawing.* While transcribing, the data obtained from interviews and reflection papers, member checking and colleague support were used, so that validity and reliability of the study were increased. Thematic analysis was conducted to interpret the interview and reflection papers data since it enables to classify many themes into fewer categories. The researcher, thesis supervisor and another departmental colleague collaborated in the theme coding process to sustain reliability of the data.

RESULTS

The first results presented are obtained through quantitative data provided with the needs analysis questionnaires filled in by the engineering faculty students. Following the quantitative results, the qualitative data analysis results are presented. The qualitative data was obtained through the reflection papers and semi-structured face-to-face interviews with the engineering faculty students. The qualitative data of the six English for Specific Purposes instructors were obtained through reflection papers and semi-structured face to face interviews made with them.

The association between the Participants' English Learning Needs And Demographic Data

In this section, the analysis results for the T-Test are presented. The T-Test was utilized to determine if the learning needs of the participants of the study differed according to their gender, institutional background, preparatory education background, distribution of their level and their majors.

Table 1. *T-Test to Determine If the Learning Needs of the Student Participants Differed According to Their Gender*

	Gender	n	Mean	Std. Deviation	Std. Error	t	p
					.15971		
Occupational	Female	10	.1921	.50506	.14218	-.388	.699
	Male	56	-.0343	1.06403			
Social	Female	10	.2230	.40549	.12822	-1.635	.107
	Male	56	-.0398	1.06969	.14294		
Educational	Female	10	.3095	1.13578	.35916	.141	.888
	Male	56	-.0552	.97477	.13026		

As presented in Table 1, the p-value for functional learning needs was p=.699, for social learning needs p=.107 and for educational learning needs p=.888. All three values are p> .050, which indicates that the participants' learning needs did not differ according to their gender, which means they were not statistically significant.

Table 2. *T-Test to Determine If the Learning Needs of the Student Participants Differed According to Their Institutional Background*

	Institution	n	Mean	Std. Deviation	Std. Error	t	p
Occupational	Private	22	.1675	.35788	.07630	.962	.340
	State	44	-.0837	1.19479	.18012		
Social	Private	22	.0743	.97608	.20810	.425	.673
	State	44	-.0371	1.02082	.15389		
Educational	Private	22	-.0396	.91612	.19531	-.226	.822
	State	44	.0198	1.04906	.15815		

As presented in Table 2, the p-value for functional learning needs was p=.340, for social learning needs p=.673 and for educational learning needs p=.822. All three values are p>.050, which indicates that the participants' learning needs did not differ according to their institutional background, which means they were not statistically significant.

Table 3. *T-Test to Determine If the Learning Needs of the Student Participants Differed According to Their Preparatory Education Background*

	Preparatory School	n	Mean	Std. Deviation	Std. Error	t	p
Occupational	Yes	61	-.0137	1.02542	.13129	.657	.514
	No	5	.1678	.66289	.29645		
Social	Yes	61	-.0569	1.00882	.12916	.763	.448
	No	5	.6942	.57652	.25782		
Educational	Yes	61	.0050	1.02051	.13066	1.064	.291
	No	5	-.0611	.78940	.35303		

As presented in Table 3, the p-value for functional learning needs was p=.514, for social learning needs p=.448 and for educational learning needs p=.291. All three values are p> .050, which indicates that the participants' learning needs did not differ according to their preparatory education background, which means they were not statistically significant.

Table 4. T-Test to Determine If the Learning Needs of the Student Participants Differed According to Their Level

	Gender	n	Mean	Std. Deviation	Std. Error .20838	t	p
Occupational	1st year	30	-.0513	1.14137	.14659	-.379	.706
	2nd year	36	.0428	.87954			
Social	1st year	30	-.1684	1.12537	.20546	-1.255	.214
	2nd year	36	.1403	.87361	.14560		
Educational	1st year	30	.0378	1.01301	.18495	.279	.781
	2nd year	36	-.0315	1.00230	.16705		

As presented in Table 4, the p-value for functional learning needs was p=.706, for social learning needs p=.214 and for educational learning needs p=.781. All three values are p> .050, which indicates that the participants' learning needs did not differ according to their level, which means they were not statistically significant.

Table 5. One-Way ANOVA to Determine If the Learning Needs of the Student Participants Differed According to the Distribution of Their Majors

	Major	N	Mean	Std. Deviation	Std. Error	f	p
Occupational	Computer	11	-.31654	1.19182	.35934	.611	.611
	Electric	16	-.07312	1.22051	.30512		
	Civil	30	.08858	.92137	.16821		
	Industrial	9	.22160	.49583	.16527		
Social	Computer	11	-.03115	.80756	.24348	.672	.573
	Electric	16	.13311	1.14038	.28509		
	Civil	30	-.15916	1.08193	.19753		
	Industrial	9	-.33198	.61014	.20338		
Educational	Computer	11	-.41370	1.08199	.32623	.828	.484
	Electric	16	.05784	1.10400	.27600		
	Civil	30	.05094	.84301	.15391		
	Industrial	9	.23299	1.21955	.40651		

As it is presented in Table 5, the p-value for functional learning needs was p=.611, for social learning needs p=.573 and for educational learning needs p=.484. All three values are p> .050, which indicates that the participants' learning needs did not differ according to the distribution of their majors, which means they were not statistically significant.

Reflection papers and open-ended questions

The first guiding open-ended question aimed to disclose the participants' opinion about the ESP courses' duration. The ESP courses are three consecutive hours per week. The majority (n=43) of the students expressed they were satisfied with this schedule and duration of the ESP courses. Five students considered it was too much, and that it could be reduced to two or even only one hour each week.

On the other hand, 14 students thought it was too few and that it should be increased. Remaining four participants did not want to have any English courses at all. One of the students also responded:

> *P27: "In my opinion, three hours of English classes in one day are too much. I would prefer having one hour three days a week".*

Next, the participants were asked the most beneficial language learning activity for their own learning style. The most mentioned (n=55) (TOM 55) activities were *watching movies or authentic videos in English* and *listening to English music.* One of the participants stated:

> *P39: "When I watch movies or real-life videos, it is in casual speaking format, and this also helps with the accents".*

These activities were followed with *participating in groups which communicate with foreigners on social media platforms* (TOM 28) and *"getting together with other language learners and speaking in English"* (TOM 25). Reading magazines/books/blogs was the least mentioned (TOM 16) activity. The answers to this part indicate that the participants are more interested in communication-based activities.

The participants were asked to rank language skills according to their importance. The highest-ranked language skill was speaking (48.3%), followed by vocabulary (28.3%) and grammar (13.3%). Pronunciation, listening, reading and writing skills were considered less important compared to the other skills. While 5% of the participants favoured pronunciation, 1.7% listening, 1.7% reading and 1.7% regarded writing as the most critical skill.

The majority of the participants mentioned (TOM 36) speaking as the skill they needed to improve. Speaking was followed by lexical knowledge (TOM 12), pronunciation (TOM 11), listening (TOM 10) and grammar (TOM 7). Reading (TOM 3) and writing (TOM 4) were the participants' skills needed to be improved the least.

The participants' opinion about the challenges they were facing when speaking English were various. The most common challenge (TOM 23) was struggling in understanding new vocabulary followed by speaking (TOM 22) and pronunciation (TOM 11). Other challenges mentioned were grammar (TOM 9), difficulty in understanding (TOM 5), writing (TOM 4) and anxiety for being ridiculed (TOM 2). Reading, listening and not understanding foreign culture were also uttered once.

In the reflection papers, the students described their ideal English class activities. Speaking (TOM 25) was the most preferred activity by the participants of the study. Listening and watching videos/movies were also very favoured (TOM 16) followed by playing games (TOM 8). These opinions indicate that students enjoy verbal communication activities in the ESP classroom. The least mentioned activities were group activities (TOM 2), learning new vocabulary (TOM 4), writing (TOM 5) and reading (TOM 6).

Doing vocabulary exercises, and memorizing new vocabulary were mentioned (TOM 22), as activities the participants thought would help them study English after school hours. Online English activities (TOM 14), reading articles in English and discussing them (TOM 10) and

watching foreign movies or television series (TOM 8) were other extra-curricular activities preferred by the students.

The participants expressed in their reflection papers their opinions about their ESP instructors. A vast majority of the participants stated they were pleased with their ESP instructors. 6.45% were not satisfied with their ESP instructors, and the reason for this was mentioned by one of the students as:

> P47: "The classes are too slow, we are making progress too slowly in class" and "I wish our instructor would give us the writing topic before the midterm and final exams".

The last theme observed from the reflection papers was that the textbooks were not satisfying for the participants. The textbooks' exercises were too simple and not compatible with the ESP exam format (TOM 10). The listening parts in the textbook were dialogues spoken by two or more people, whereas the listening parts in the exams were lectures. The students wrote that the textbooks' reading parts were too short, whereas the reading texts in the exam were much longer. One of the students wrote:

> P56: "The only part which matches in the exam and textbook is the vocabulary part. Reading and listening are much more difficult in the exams."

Semi-structured face to face interviews

Ten randomly chosen participants were asked if they liked English. Almost all of them (n=9) stated they liked English, whereas one participant did not like English. The majority of the interviewees (n=7) expressed they were learning English for their future careers while the remaining interviewees (n=3) uttered their English learning purpose as mainly educational.

Most of the interviewees (n=7) believed that English in engineering was necessary when they would go abroad to work. When they were asked about the advantages of English in engineering, most interviewees (n=7) affirmed that they would be more successful in job recruitments because of their English. Some of the interviewees (n=3) also expressed that English would be advantageous to adjust to a new culture if they were to work abroad.

Half of the interviewees' (n=5) significant was electrical engineering. They also explained English would be an advantage for them in their professional lives when they would have to read the user manuals.

The interviews were continued by asking the interviewees how they were studying English by themselves. Three interviewees expressed they did not study English individually, while a few (n=2) students studied English only before the midterm and final exams by focusing on the textbook used in class.

The remaining interviewees (n=5) liked to learn new lexical and grammatical structures by reading English books, listening to English songs and watching English television series or films.

The interviewees were also asked if the teaching materials used in ESP courses were fulfilling their learning needs. A few (n=4) interviewees stated that the textbook was inadequate for

their learning needs. When asked to specify the inadequacy, they all uttered that besides the vocabulary parts of the unit's reading and writing skills were not compatible with the ESP midterm and final exams' concept of Toros University engineering faculty.

Another opinion mentioned by most participants (n=7) was that they would prefer if each department had its own ESP textbook because the current textbook's units were about different engineering departments.

A more substantial part of the interviewees (n=7) verbalized they wanted the ESP courses to focus more on speaking activities and activities such as competitions, word games and debates.

The interviewees were also asked what the most useful skill for engineering was in learning English, and half of the participants (n=5) expressed the speaking skill. Speaking was followed by the reading skill (n=3) and writing skill (n=2).
Half of the interviewees (n=5) preferred to study English individually. Four interviewees expressed studying English with a group was more beneficial for them, and one interviewee stated he could not benefit from group study. Still, private tutoring was the best way to study English for him.

The interviewees were also asked about the difficulties they were facing in the ESP courses. Majority of the interviewees (n=4) expressed they did not face any difficulties. Two participants stated that the pronunciation of ESP lexicon was difficult for them, two interviewees mentioned having the classes together with students with different English levels was making the ESP courses difficult and one participant verbalized that having three consecutive hours of ESP was too much.

The interviewees were asked whether Toros University provided them with significant English language learning opportunities. Most of the interviewees (n=8) believed the school provided them with the necessary opportunities to learn English. However, the other interviewees (n=2) commented that Toros University did not provide them with the opportunities they expected. Their expectations included going abroad and having native professors in their major departments.

The last question was about their overall contentedness with the ESP courses at Toros University. Half of the participants (n=5) were satisfied with the ESP courses. Three interviewees were contented with the ESP instructors. Two interviewees were not pleased because they wanted more focus on speaking and listening skills.

DISCUSSION

The purpose of this study was to evaluate the ESP program at the Engineering Faculty of Toros University in Turkey and to find out the views of students and ESP instructors about the program through explanatory mixed-methods design. Moreover, this study aimed to obtain whether the needs of the students were met by the current ESP program and the ESP instructors at the engineering faculty. This chapter discusses the findings gathered from quantitative and qualitative data. The types of data are combined to provide a detailed understanding of the students and instructors' views. This section is laid out according to the research questions.

The main objective of the ESP courses is to develop personal strategies for reviewing new related vocabulary, to use vocabulary in a variety of academic speaking, listening, writing and reading activities. Furthermore, the other goals are discussing various topics needed for work in the student's professions, developing academic speaking, listening, writing and reading skills, evaluating a variety of texts and identifying the related terminology. These goals and objectives are compatible with the principal concept of ESP pointed out by Hutchinson and Waters (1987). They claim that the main idea behind the skill-centred approach, ESP, is focusing on interpretive strategies which enable the language learner to figure out the surface forms, such as guessing the meaning of words from context, using visuals to identify the type of the text, exploiting words which are similar in the native tongue and target language.

The engineering students' needs as perceived by the faculty academic English coordinator, comply with the ESP instructors' perceptions. The primary need of the engineering students is the expansion of vocabulary because they are unfamiliar with the terminology of their future professions. Language structures are not a challenge for them, but the vocabulary is. The engineering students also need to improve their critical thinking skill.

According to the quantitative data obtained from the questionnaire filled by the engineering students, the engineering students' needs emerged as three groups that are occupational, social and educational. These groups did not demonstrate any difference according to the demographic data of the students. In other words, it can be said that these needs did not change depending on the engineering department, class, educational background, preparatory school education, age or gender of the students. Furthermore, the reflection papers and the semi-structured face to face interviews, which were applied to collect qualitative data, supported the quantitative data findings.

Reading is considered the essential skill in ESP (Grabe & Stoller, 2001), which is not in line with the current study's findings. The students believed the ESP program fulfilled their needs, but they requested extra attention to speaking. The engineering students consider speaking to be the essential skill in their future careers. This result is similar to the findings of Al-Tamimi and Shuib (2008), who stated that the students in their study emphasized that the primary focus should be on speaking, communication and listening skills. Likewise, in Boroujeni and Fard's (2013) study, speaking was the most preferred skill.

The students had a request regarding the textbook used in the ESP courses. The majority of the students want to use a textbook explicitly prepared for their major study area. This finding is in line with Nimasari's (2018) study, in which a high percentage of the students thought that there should be specific English textbooks for informatics engineering students.

CONCLUSION

The study's interest was the evaluation of the English for Specific Purposes program at the engineering faculty of Toros University in Turkey. The aims were to determine the goals and objectives of the ESP program in engineering education at Toros University and determine if the ESP program at Toros University was meeting the engineering faculty students' needs. To meet these aims, the explanatory mixed-method research design was used, and to understand the complexity of the research problem, quantitative and qualitative research methods were combined. The quantitative data was collected through a Likert-scale type of questionnaire based on ESP related issues from engineering faculty students at Toros University. Qualitative data for the study was obtained via open-ended questions on the

questionnaire, semi-structured face to face interviews and reflection papers. The face-to-face interviews were conducted depending on the instructors and students' voluntariness, and more details about ESP and ESP related issues were elicited from the participants.

The study was conducted at the Engineering Faculty of Toros University with six English language instructors and its engineering students.

The questionnaire applied to the engineering students has put forward that the needs of the students are gathered under three dimensions; occupational, social and educational.

The findings of the study have revealed that the main objective of the ESP courses is to develop personal strategies for reviewing new related vocabulary, to use vocabulary in a variety of academic speaking, listening, writing and reading activities. These goals and objectives align with the principal concept of ESP pointed out by Hutchinson and Waters (1987). The engineering students' primary need is the expansion of vocabulary because they are unfamiliar with the terminology of their future professions. Language structures are not a challenge for them, but the vocabulary is. The engineering students also need to improve their critical thinking skill. The study also found that the ESP instructors believe that the engineering students need to focus on all four language skills, but they need more emphasis on reading and vocabulary. It was also found that the objectives of the ESP program met the engineering faculty students' needs. The most crucial skill perceived by the engineering faculty students was speaking and vocabulary knowledge. The majority of the students believed they were competent in grammar but needed to develop their vocabulary. Most of the students wanted to use a textbook explicitly prepared their major study area.

ESP instructors believe the ESP courses meet the needs of their students. They are focusing on four skills, and they keep vocabulary in the main focus. However, they find having students from different language levels in the same class quite challenging.

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