

ENGINEERING STUDENTS' ATTITUDES TOWARDS LEARNING ENGLISH AT THE TERTIARY LEVEL

Abstract: *The aim of the study was to explore the attitudes of engineering students towards learning English at the university level. The sample included 219 first-year students of the Faculty of Mechanical Engineering, University of Belgrade. The students filled out a questionnaire, which explored their opinions on the duration and positioning of the English university courses, the preference for the type of contents included in the classes and the perception of the instrumental value of ESP. The majority believe that learning English is highly beneficial for their future career. The concluding part discusses the obtained findings in terms of the suggestions for curriculum enhancement.*

Keywords:

engineering students, ESP, attitudes, instrumental value of ESP

Introduction

Extensive research in second language acquisition has shown that attitudes towards learning the second language have a considerable effect on the successful mastery of the language (Gardner 1985, 2000, Dörnyei 2001, 2003, etc.). The advent of Gardner's socio-educational model placed this topic into the limelight, since it was argued that attitudes influence the success with which another language is acquired (Gardner 1985: 4). In other words, favourable attitudes tend to cause the experience of learning the language to be perceived positively.¹ The concept of motivation to learn a second language (L2) is closely related to that of an attitude in this area since it refers to "the extent to which the individual works or strives to learn the language because

¹ However, apart from favourable attitudes, learner's motivation and, consequently, the outcome of learning, are affected by other factors as well, such as the learner's ability, learning opportunities and quality of instruction (Csizér and Dörnyei 2005: 20).

of a desire to do so and the satisfaction experienced in this activity” (Gardner 1985: 10). The concept has since been thoroughly researched from various theoretical standpoints (Dörnyei 1994, 1998, 2000, Masgoret and Gardner 2003, Tremblay and Gardner 1995, etc.) and still poses a topical issue for exploration, as testified by the tremendous upsurge in the number of publications dealing with L2 motivation in the past decade reported by Boo, Dörnyei and Ryan (2015).

In the majority of studies, special emphasis has been placed on the distinction between the concepts of integrative and instrumental orientation/motive. The former refers to learning a second language mainly because of the desire to integrate into the other language community, while the latter entails learning the language for pragmatic purposes, attaining certain goals such as getting a good job etc. (Gardner 1985, 2010). These issues have been closely explored due to the educational potential of research in L2 motivation. It has been argued that, on the one hand, it is necessary to systematically develop motivational strategies that can be applied to generate and maintain motivation in learners, and, on the other, it is vital to formulate self-motivating strategies that enable the learners of second language to control the affective conditions and experiences that shape their subjective involvement in learning (Dörnyei 2003: 23). Some authors have even stated that “devoting time and effort to enhancing motivation in terms of agency and attitude will probably be more a valuable investment in the long term than time spent conveying the content of the curriculum, whether grammar, language, skill or function” (Williams, Burden and Lanvers 2002: 524). Bearing in mind the afore-said, in the present study we aim at providing an insight into learners’ attitudes and, consequently, the motivation in a specific segment of second language learning, English for specific purposes (ESP), taught to future engineers at the tertiary level of education.

Studying the attitudes towards second language learning at the university level

The current study is placed within a specific context of learning the second language within the university level courses, which usually dominantly focus on acquiring professional terminology. It has been generally accepted that the aim of teaching a second language at the tertiary level lies in its instrumental value (Belcher 2006). Accordingly, it has often been pointed out in previous research (Dovey 2006, Peters and Fernandez 2013) that there is a

need to harmonise the subject matter of an ESP course with its applicability and transfer to the future workplace.

On the other hand, the learners themselves should recognise the benefits of mastering the second language and developing the necessary L2 lexicon in the realm of their future profession since professional decisions may depend on their command of specialised language (Peters and Fernandez 2013: 236). However, certain authors have argued that there is an apparent lack of enthusiasm and interest in language classes among non-language majors (Martinović and Poljaković 2010). This topic has inspired a number of researchers in the field investigate the attitudes towards ESP at the university, with participants studying at different faculties (e.g. Đurović and Silaški 2014, Jelovčić 2010, Martinović and Poljaković 2010, Tasić 2009, Trinder 2013, etc.).

Tasić (2009) conducted a survey among the students of the Faculty of Mechanical Engineering in Niš with the aim of exploring students’ opinions about the English language, as well as the reasons for choosing English over other languages at the faculty, perceiving the usefulness of English for future job, etc. The majority of students were of the opinion that the knowledge of English was necessary for their professional careers. Martinović and Poljaković (2010) studied the attitudes of non-language majors at the Croatian faculties towards ESP, concluding there is high awareness among students about the practical benefits of learning English. Jelovčić (2010) conducted a survey among the students of humanities and social sciences in Zagreb, who were also conscious of the need of learning the language for specific purposes, with two thirds of participants considering reading academic/professional texts and acquiring professional terminology as important and necessary. Trinder (2013) studied the beliefs of business students in Austria about effective language learning, concluding there are certain belief patterns specific for business students. On the sample of Serbian economics students, Đurović and Silaški (2014) showed that both instrumental and integrative orientation play an important part in their attitudes towards and motivation for learning English. The results of these studies indicate that the majority of interviewed students are aware of the important role of proficiency in English in the professional community they are about to enter with graduating.

The present study – methodology and survey background

The aim of the current study was to empirically explore the attitudes of engineering students towards learning English at the university level, as well

as the beliefs about their knowledge of English and the habits in practicing the activities deemed beneficial in learning English outside the faculty.

The respondents were the first-year students of the Faculty of Mechanical Engineering, University of Belgrade. English language course over two semesters is mandatory for all respondents. At the time of the survey, they had already completed one English language course, which lasted for one semester, and were completing the second. The instrument used in the survey was a questionnaire. The issues covered by the questionnaire were selected bearing in mind the topics investigated in previous studies of a similar kind (e.g. Horwitz 1988, Jelovčić 2010, Martinović and Poljaković 2010, Tasić 2009, Trinder 2013, etc.)

The questionnaire items were aimed at gathering basic socio-demographic data and self-assessment of English language skills, as well as at exploring students' attitudes towards English courses at the university level in terms of their being compulsory/elective and being positioned at the certain level of studies (Bachelor, Master, PhD), students' preference for the type of contents included in the classes and their perception of the instrumental value of ESP. The participants answered by either circling one of the offered options or providing their answers on a five-point Likert scale.

The sample included 219 first-year students (82.6% male; 14.7% female) of the Faculty of Mechanical Engineering, University of Belgrade, who were, on the average 19 years old (SD=.96). The majority of students (56.2%) started learning English in the first grade of primary school, around one third of participants (31.5%) in kindergarten, while 11.4% of students started learning English in the fifth grade of primary school. Around one-third (31.5%) of the students from the sample stated they had attended English language courses outside compulsory education, mostly in foreign language schools. More than half of respondents (53.4%) only stated English as the foreign language they learned and spoke, while 46.1% stated they also spoke some other language. The majority of students completed the prior course of English at the university with high grades (grade 6 – 5.9%, grade 7 – 14.2%, grade 8 – 16%, grade 9 – 24.2%, grade 10 – 36.5%).

Research results

Research results will be presented in two parts – the first will focus on students' beliefs about their knowledge of the English language in general, the proficiency in particular language skills and the language-related habits and

resource use, while the second part will deal with students' attitudes towards learning English at the university level.

We will first reflect on the participants' self-assessment of their English language skills. The majority of respondents, over one-half (60%), assess their overall knowledge of English as either very good or excellent, while around one fifth (20%) of the sample assessed it as good. Less than one fifth of the sample stated that their knowledge of English was average (17%), and a minority (3%) that it was poor.

Students were also asked to estimate the level of their proficiency in English (poor, average, good, very good or excellent) in case of particular language skills (reading, writing, translation, conversation and understanding). The interviewed students had most confidence in their understanding (53%) and reading (47%) skills. According to their self-assessment, they have the poorest knowledge of writing (only 23% assessed it as excellent) and translation (28%) (Figure 1).

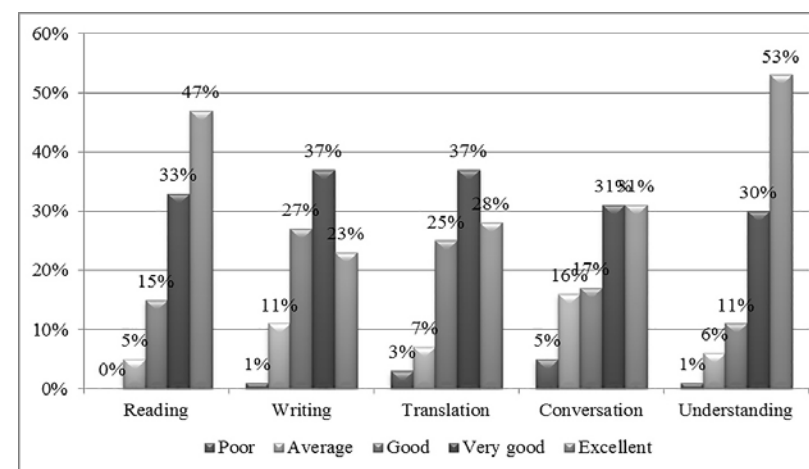


Figure 1: Students' assessment of their proficiency in particular language skills

Students were then presented with a set of questions referring to the habits in practicing the activities that might be considered conducive to improving their knowledge of English, as well as to the frequency of using certain language resources (monolingual or bilingual dictionaries and grammar books). As can be seen in Figure 2, most frequently performed activities are visiting websites in English and watching movies and TV shows in English without translation (46% and 38% of respondents respectively perform these activities every day).

Students also frequently watch news programmes on TV in English (26% frequently and 28% every day). The least practiced activity is searching the web for professional literature in English (only 14% of respondents do it regularly, while 26% never practice this activity).

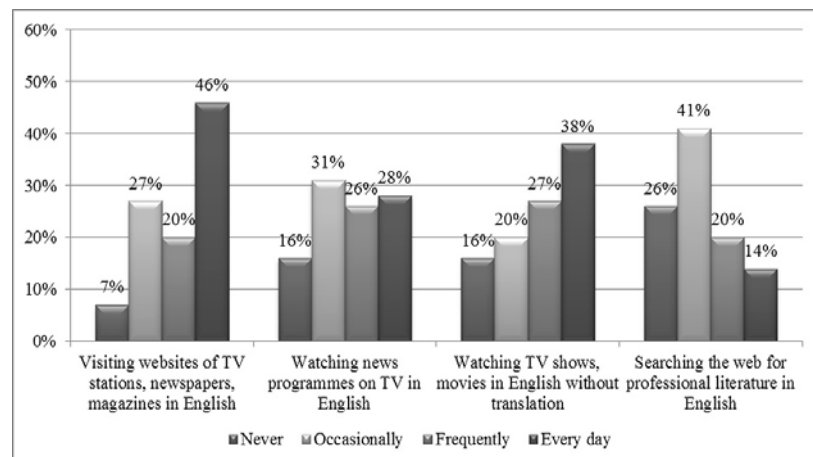


Figure 2: Frequency of practicing certain activities considered conducive for learning English outside the faculty

Dictionary use has been mentioned in the literature as a means of support for developing competence, since it has been noticed that beginners more often use bilingual dictionaries while more advanced learners also use monolingual dictionaries (Peters and Fernandez 2013). Among our research participants, it is noticeable that, in general, they rarely use grammar books, either monolingual or bilingual, and monolingual dictionaries (Figure 3). More specifically, 51% of students stated they had never used a monolingual grammar book, while 45% of respondents said they had never used monolingual dictionaries. The most commonly used resource is a bilingual dictionary (36% of respondents use it frequently or every day), however, its use is also not very widespread.

It is reasonable to expect that the students with a higher self-assessment of the general knowledge of English would practice the some of the above-mentioned activities more often than the students who assessed their knowledge as lower, and this also refers to the more frequent use of the above-mentioned resources. If we focus on some particular resources or particular activities deemed conducive for enhancing participants' knowledge of English and check for the frequency of their practicing within the groups of students according to their self-assessment of the knowledge of English language in

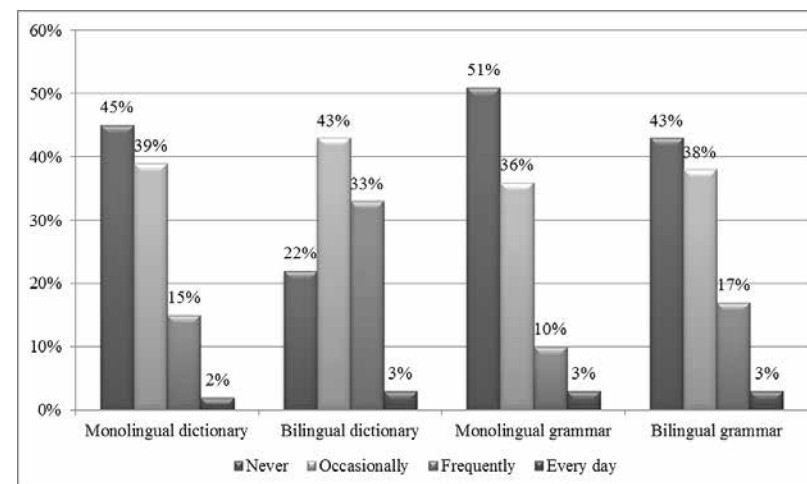


Figure 3: Frequency of use of language resources

general, we obtain the following results.

The frequency of searching the web for professional literature in English is related to the respondents' self-assessment of their knowledge of English (Figure 4). The majority of those who assess their knowledge as poor or average (61%) do not have the habit of searching the web for professional literature in English. The frequency of practicing this activity increases for those who assess their knowledge as very good or excellent (25% practice it frequently, and 21% every day).

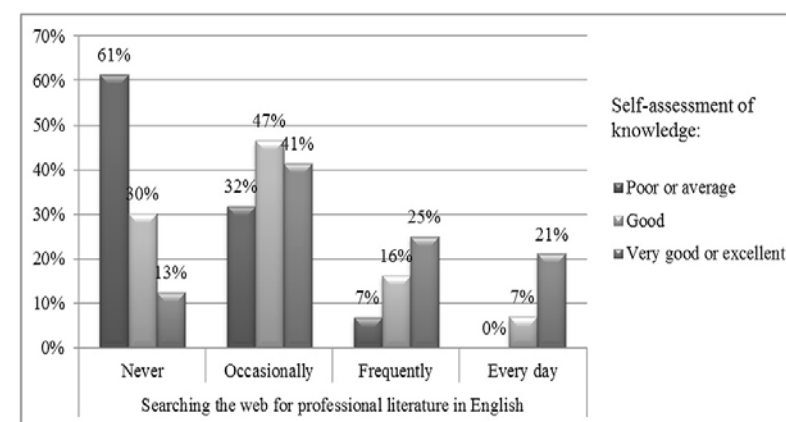


Figure 4: Frequency of searching the web for professional literature in English in the groups of self-assessment of knowledge

When it comes to the use of a monolingual dictionary, this activity is most frequently practiced by those who assessed their knowledge as very good or excellent, and rare in those who assessed their knowledge of English as poor or average (70% of students stated they had never used a monolingual dictionary), as can be seen in Figure 5.

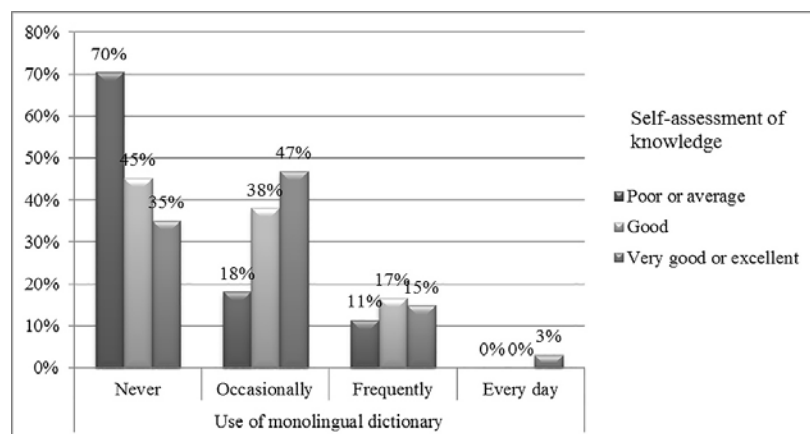


Figure 5: Frequency of use of a monolingual dictionary in the groups of self-assessment of knowledge

The least used resource generally is a monolingual grammar book. The use of this resource is very rare among those who assess their knowledge of English as poor or average (75% stated they had never used it). However, monolingual grammar books are also seldom used among those who assess their knowledge as very good or excellent (only 13% of such students use this resource frequently or every day) (Figure 6).

Having briefly outlined the respondents' beliefs about their knowledge of English, we will now focus on their attitudes towards the courses of English held at the university level.

It has been pointed out in the literature that learning the second language is different than learning other subjects, since, besides explicit learning of the elements of grammar and lexicon, it is also a social event which involves a wide scope of social and cultural elements of the culture of L2 (Dörnyei 2003: 4). It seems that the respondents in our study recognise this specificity, i.e. the majority of respondents believe that learning English at the faculty is different than learning other subjects (75% of the sample mostly or completely agree with this statement). When asked to assess how difficult the English language

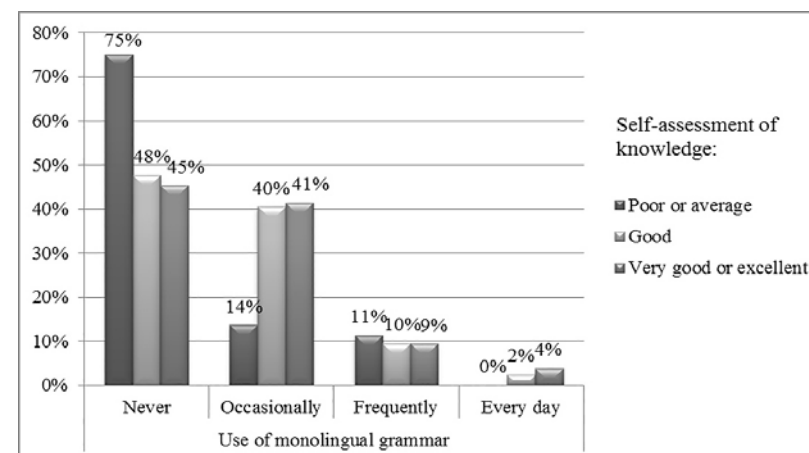


Figure 6: Frequency of use of a monolingual grammar book in the groups of self-assessment of knowledge

is for learning, the biggest percentage of respondents stated that it was medium (49%), while 32% said that it was easy to learn it. Only 7% of participants were of the opinion that English was difficult or very difficult to learn.

When it comes to the status of the English language course at the faculty, the majority of participants, around two-thirds (67%), think it should be compulsory, while 29% believe it should be elective. A small portion of the sample (4%) did not think it necessary for this course to be included in the curriculum at all.

As for the level of studies at which English should be taught, the respondents in the majority said that it either should be taught at the beginning of bachelor studies (40%) or at all levels of studies (35%), as can be seen in Figure 7. When it comes to the duration of the course in terms of semesters, the majority of respondents (44%) believe that it should last for two semesters. However, a significant portion of students (31%) stated that English should be taught for the entire duration of studies.

When asked about the topics of interest in learning English at the faculty (Figure 8), the participants mostly opted for reading professional texts (44%), discussing professional topics (24%), and discussing everyday topics (24%). The least favourite activities in the class refer to practicing grammar (7% of respondents stating this was their topic of interest) and writing essays (only 1% of students mentioning it as their focus of interest in English classes).

A good opportunity for students to practice vocational English might be taking an elective course related to mechanical engineering taught in English

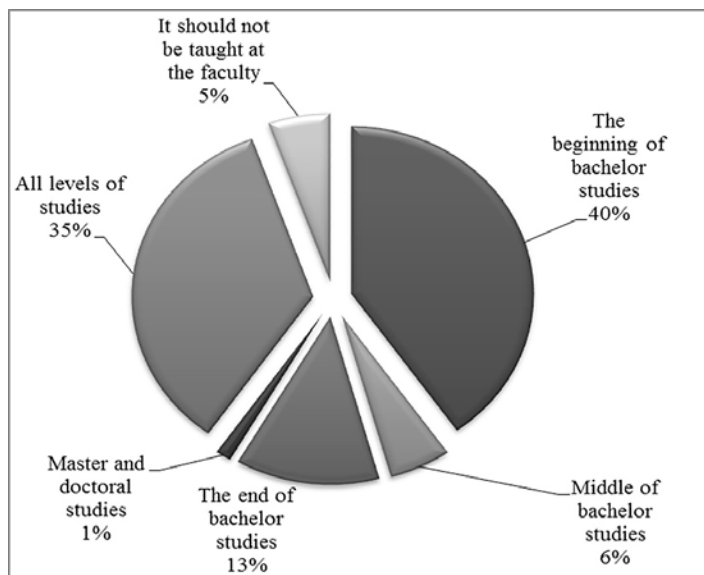


Figure 7: Respondents' beliefs about the level of studies at which English should be taught at the faculty

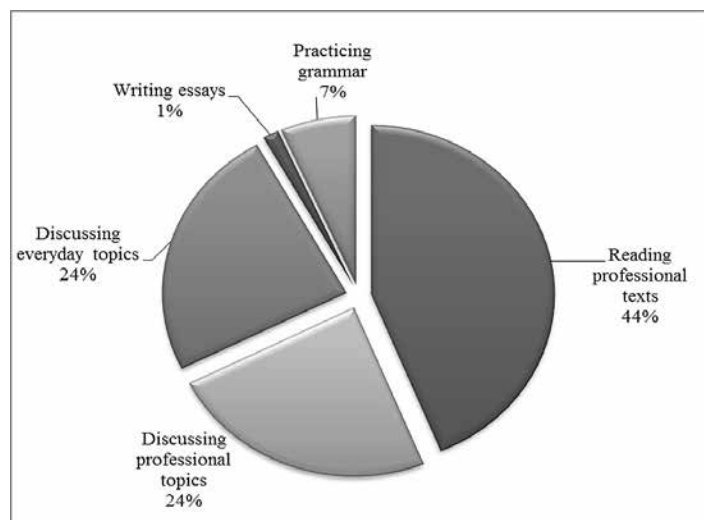


Figure 8: Topics of interest when it comes to English courses at the faculty

only. When asked whether they would opt for an elective course that would be taught in English at further years of studying, 29% of the participants said they would choose such a course, while 48% would perhaps consider it. When it

comes to students' perception of the instrumental value of learning English, the majority (87%) either completely or mostly agree that if they learned English well, they would have more opportunities to find a job. The majority (56%) also believe that the proficiency in English is essential for their future profession.

In some of the previous studies (e.g. Trinder 2013), it has been shown that prior language learning also plays a large part in shaping the beliefs about language learning. Further analysis of the previously elaborated findings about students' attitudes towards English university courses indicates that the self-assessed level of knowledge of English as well as the duration of learning English, play a very important role in students' attitudes.

As a rule, it is shown that the more positive self-assessment of personal knowledge level, the more positive the attitudes towards different aspects of English learning. For instance, the participants who assess their knowledge as very good or excellent, compared to those who gave poor or average self-assessments, are more inclined to think that the English language should be a compulsory university course (74%:50%). Those with very good or excellent self-assessed knowledge think that English should be taught at all levels of studies (43%) and in every semester at the bachelor level (37.5%); on the other hand, the percentage of the students with poor or average self-assessed knowledge who share the similar views are 18% and 18.2%, respectively. When asked whether they would be willing to choose a vocational course which would be taught in English, two-thirds (64%) of participants who assessed their knowledge of English as poor/average answered "No". Such an opportunity is rejected only by 10% of those with very good or excellent self-assessed knowledge, with a large portion (41%) saying they would opt for a vocational course taught in English.

Similarly, a large majority of those who assess their knowledge as excellent or very good (67%) stated that proficiency in English was essential for their future profession, while only a minority (33%) of students who assess their knowledge as poor or average agreed with this. Still, there are no prominent differences by the level of self-assessed knowledge when it comes to the opinion that proficiency in English enhances their chances of finding a job. The majority of students generally agree on it.

Similar trends are visible concerning the relationship between the duration of learning English and the analysed opinions of the participants. The earlier a student started learning English, the more positive are his/her views on all of the analysed aspects of learning English at the faculty. Those who started learning English in the kindergarten, compared to those who started

learning it in primary school, are more prone to think that English should be compulsory, taught at all levels of studies and throughout all semesters at the bachelor level. They would be more ready to opt for vocational courses taught in English; they more intensely hold views on the essential role of English for future profession and that the fluency in English enhances the opportunities for finding a job.

Finally, thinking that knowing English is important for finding a job is related to the level of interest in different areas/subjects in English course. Those who think that English is important for getting a job are more interested in reading professional texts and discussing professional topics.

Discussion and concluding remarks

The aim of the present small-scale study was to explore the beliefs and attitudes of university engineering students towards learning English at the tertiary level. This was accomplished by conducting a survey, using a questionnaire made for the purposes of the study. According to our results, a vast majority of respondents recognise the instrumental value of attaining proficiency in English, stating it might provide them benefits when applying for a job. Since “preconceived notions about language learning would likely influence a learner’s effectiveness in the classroom” (Horwitz 1988: 283), we may argue that students’ motivation for attending and passing with good grades the ESP courses aimed at enhancing their fluency in professional English would be high. An ideal ESP university course, according to the majority of participants, is compulsory, placed at the beginning of the bachelor level of studies and taught for two semesters; it focuses on reading professional texts and discussing professional topics in English. Additionally, a large number of interviewed students stated that English should be taught at all levels of studies.

Research results have shown that the most often practiced activities that might be considered beneficial for learning English outside the faculty include visiting websites in English and watching TV shows or movies in English without translation, while the least practiced activity is searching the web for professional literature in English. Therefore, further practicing of such activities that might help the students in broadening the scope of vocabulary, as well as honing their reading and listening skills, should be encouraged in classes. This refers to recommending watching news programmes in English on TV, which may provide them an insight into topical issues, and especially to stressing the importance of searching the web for professional literature

in English, which may help in expanding the scope of academic, profession-related vocabulary.

When it comes to language resources, our findings indicate that students rarely use monolingual grammar books or dictionaries. Possible reasons for this may lie in the level of proficiency required for their use, as well as in the lack of the habit that should have been formed during the earlier stages of education. Hence, additional emphasis should be placed on explaining to students the benefits of using both monolingual and bilingual dictionaries, as well as grammar books in general. Furthermore, teachers’ activities in the classroom should also focus on raising awareness about the importance of practicing grammar and improving writing skills, which have been stated as the least favourite activities included in the classes, as well as on improving the least highly assessed skills in students, namely writing and translation.

In previous studies, it has been recommended for a successful framework of motivational teaching practice to include, among other things, enhancing the learner’s L2-related values and attitudes, as well as increasing learner’s self-confidence and their expectancy of success (Dörnyei 2003: 23-24). In the context of the present study, the latter seems especially relevant, bearing in mind the above-presented findings that the level of self-assessment of knowledge of English affects many variables used in the research, such as the frequency of using monolingual language resources, the habit of searching the web for professional literature in English, etc. Special attention should also be paid to those students who have been learning English for a shorter period since they may feel discouraged by the demands of the university language courses, which may also induce the feeling of lower competence and, consequently, negative attitudes towards learning the second language in the tertiary context. Although learner beliefs should be created realistically (Dörnyei 2003: 24), the students should be encouraged to tackle the activities deemed “above” their perceived level of knowledge, since this in turn may lead towards an actual enhancement of their level of knowledge of English.

The chief limitation of the current study is that the findings were obtained on a convenient sample of the engineering students selected from only one faculty that educates engineers. Future studies should therefore consider including larger, representative samples of students from different engineering faculties (e.g. electrical engineering, civil engineering). The data obtained in this way might further confirm the links established between the duration of learning English or the self-assessment of the knowledge of English, on the one hand, and the attitudes towards learning the language at the university on

the other. Some other factors that may affect engineering students' attitudes towards learning English at the tertiary level could be revealed as well.

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Stavovi studenata mašinstva prema učenju engleskog jezika na univerzitetskom nivou

Rezime

Brojna istraživanja u oblasti usvajanja stranog jezika pokazuju da stavovi prema jeziku imaju značajan uticaj na uspešno ovladavanje stranim jezikom. Cilj ovog istraživanja jeste da ispita stavove prema učenju engleskog jezika na univerzitetskom nivou kod studenata mašinstva. Uzorak je činilo 219 studenata prve godine Mašinskog fakulteta Univerziteta u Beogradu. Studenti su popunjavali upitnik napravljen u svrhe istraživanja u kome se tražilo da procene sopstveno znanje engleskog jezika i pojedinih jezičkih veština, učestalost upražnjavanja određenih aktivnosti podsticajnih za učenje engleskog jezika van fakulteta i upotrebe rečnika i gramatike, kao i da iskažu stavove o tome kako bi kursevi engleskog jezika trebalo da izgledaju na univerzitetskom nivou. Većina ispitanika smatra da je učenje engleskog jezika veoma značajno za njihovu buduću karijeru, dok bi idealan kurs engleskog jezika za studente mašinstva trebalo da traje dva semestra, da se održava na početku osnovnih akademskih studija i da se usmeri na čitanje stručnih tekstova i diskusiju o njima. U zaključnom delu razmatraju se implikacije dobijenih rezultata za podizanje svesti studenata o važnosti usavršavanja engleskog jezika struke.