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Motivation towards studying english for specific purposes among students of medical and healthcare studies

SUMMARY

In today's modern world marked by globalisation there are great demands for global interaction which stresses the need for English language. The aim of this paper is to recognise the importance of students' motivation towards learning English for Specific Purposes, i.e. Medical English. In order to determine students' preferred motivational orientation, a total number of 242 students of medical and healthcare professions were involved in the present study. The results of the principal component analysis of the questionnaire survey showed a three-factor solution with Instrumental, Integrative and Personal Motivation as subscales. Cronbach's alpha coefficients of the subscales indicated high internal consistency. The results indicated that participants in our sample, students of medical and healthcare studies, were more integratively motivated. The participants, who self-assessed their English language knowledge as better, had also greater motivation towards learning the language.

Keywords: motivation, ESP, students of medical and healthcare studies.

1. Introduction

Due to globalisation and its impact on the world's economy, politics and people's migrations the knowledge of English has become a necessity. Today, there are enormous economic and global needs for the English language. A quarter of the world's population already speaks English fluently, and the number is steadily

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increasing (Crystal, 2003). The English language is a “global language for numerous domains, with science being one case among many” (Montgomery, 2013, p. 3). For sciences like medicine and engineering, it is the dominant language in international communication. Actually, English “is the medium for over 90% of international scientific communication in every form, throughout the entire globe” (Montgomery, 2013, p. 168).

The European Commission supports EU countries and higher education institutions in modernising education programmes to provide graduates with high-level, employable skills, as well as the transferable skills that equip graduates for a fast-changing labour market and to strengthen ‘key competences’ one of which is the acquired foreign language competence.¹ The European Commission staff working document on language competences for employability, mobility and growth states that English is becoming the first foreign language and the most taught foreign language, both in Europe and globally, but the proficiency in more than one foreign language is what will make a decisive difference in the future.²

Therefore, the outstanding knowledge of English language is a basic need for students who want to join global community of scientists and researchers. For every student or professional, including medical, whose first language is not English, reading technical and scientific literature, monitoring the development and progress of medicine, searching for clinical answers within literature, writing research articles, manuscripts, letters, mails, preparing oral presentations, and collaborating with other scientists in English is much more challenging and demanding than it is for native speakers of English. Healthcare practitioners are in high demand throughout the world. There is already a 7,2 million global healthcare workers shortage which will reach 12,9 million in coming decades, and will have serious consequences on the health of billions of people across all areas of the world.³ Consequently, according to statistics provided by the Member States, the highly regulated professions that move the most from one country to another in the EU are doctors of medicine and nurses, although physiotherapists are also highly ranked on the list.⁴

1 Communication from the Commission to the European Parliament, the Council, The European Economic and Social Committee and the Committee of the Regions-A New Skills Agenda for Europe. Working together to strengthen human capital, employability and competitiveness COM/2016/0381 final, Brussels. (10th June 2016)

2 Language competences for employability, mobility and growth. Accompanying the Document Communication from the Commission Rethinking Education: Investing in skills for better socio-economic outcomes Strasbourg. (20th November 2012)

3 World Health Organization, News releases from the Third Global Forum on Human Resources for Health <http://www.who.int/mediacentre/news/releases/2013/health-workforce-shortage/en/> (11th November, 2013)

4 The European Commission regulated professions database contains information on regulated professions, statistics on migrating professionals, contact points and competent authorities, as provided by EU Member States, EEA countries and Switzerland. Retrieved from <http://ec.europa.eu/growth/tools-databases/regprof/index.cfm> (accessed in November, 2017)

Transculturality and international migrations of healthcare workers, as indicated above, are inevitable, and entail necessary consequence of good knowledge and proficiency in English, especially English for Specific Purposes, i.e. Medical English. The objective of the learners of the ESP is to use English in a “particular domain” (Paltridge and Starfield, 2013, p. 2), i.e. to use professional and technical language of the discipline they are studying. ESP learners are mostly adult learners, and their learning goals are to communicate effectively in their academic and professional environment. The content of the ESP course is therefore oriented to the specific learners’ needs. For example, since good communication is essential for the successful health outcomes, one of the focuses of the Medical English course is on the spoken interaction in medical settings.

There are many aspects that have to be taken into consideration that have an impact on language acquisition. Age, intelligence, learning achievements, aptitudes, anxiety, personalities, attitudes, self-identities, parental encouragement and motivation are just some of them (Gardner, 1960, 1980, Dörnyei, 1990).

Independent report of OMC group “Languages for jobs”, which the Commission has set up under the Education and Training 2020 Framework, encourages the development and dissemination of new methods of teaching languages to increase the motivation of learners stating that these methods should be learner-focused, practically oriented and more applied to professional contexts. “Effective communication and cultural awareness are important elements of language teaching, as intercultural competence, ability to work in multilingual and multicultural teams, flexibility and good communication skills are highly demanded by the employers.”⁵

As far as motivation in learning ESP is concerned, Hutchinson and Waters (1987, p. 8) have already asserted that “the clear relevance of the English course to their (learners’) needs would improve learner’s motivation and thereby make learning better and faster.”

1.1. Motivation

Motivation has been the central subject of numerous studies since certain aspects of motivation have a deep impact on the achievement or acquisition of any foreign language. When defining successful or unsuccessful learners the term ‘motivation’ will be frequently used by language teachers (Dörnyei, 2001). McDonough clearly

⁵ Languages for Jobs. Providing multilingual communication skills for the labour market. Report from the thematic working group “Languages for Jobs” European Strategic Framework for Education and Training. Retrieved from http://ec.europa.eu/dgs/education_culture/repository/languages/policy/strategic-framework/documents/languages-for-jobs-report_en.pdf

affirmed that “motivation of the students is one of the most important factors influencing their success or failure in learning the language” (1983, p. 142). “*Why* people decide to do something, *how hard* they are going to pursue it and *how long* they are willing to sustain the activity” are just some of the issues addressed by motivation theoreticians (Dörnyei, 2001, p. 7). According to Gardner “the motivated individual is goal directed, expends effort, is persistent, is attentive, has desires (wants), exhibits positive affect, is aroused, has expectancies, demonstrates self-confidence (self-efficacy), and has reasons (motives)” (2007, p. 10). All of these issues contribute to a better and easier acquisition of a foreign language. Individuals with highly developed abilities but lacking motivation are not capable of achieving the previously set goals (Dörnyei, 1998).

Robert Gardner and Wallace Lambert, were the first who with their associates and students seriously engaged in a research on motivation. Together they settled standardised assessment techniques for measuring a wide range of motivational components based on a social psychological approach, and they studied motivation as a complexity of different factors and attitudes. Two basic types of motivation based on the socio-educational model were recognised at that time by Gardner and Lambert, namely ‘instrumental’ and ‘integrative’ (Brown, 2000). Learners with ‘instrumental’ motivation learn a foreign language because they want to pass the exam, find a better paid job, i.e. for practical, utilitarian reasons. In this case, learning the language is not the main goal, but rather a means by which a learner reaches his/her professional or personal goal. On the other hand, an integratively motivated learner “wishes to identify himself with or become integrated into the society” that speaks the target language (Gardner, 1983, p. 203). The main reasons for learning a foreign language are assimilation with the target language community and culture, and perhaps because of a strong emotional interest in the speaker of that foreign language. This dichotomy of motivation (instrumental and integrative) was in later years specified as *orientation* considering whether a learner’s context was “academic or career-related, or socially or culturally oriented” (Brown, 2000, p. 163).

Cooper and Fishman introduced a third type of motivation, called “developmental or personal motivation” which relates to “personal development or personal satisfaction” (Cooper and Fishman, 1977, p. 243), meaning that the learners are motivated to learn English language because they want to read books in English or they want to watch movies.

Even though there are many definitions of motivation, which is “not a simple construct” (Gardner, 2007, p. 10), and as Hutchinson and Waters pointed out, it is a “highly individual matter” (1987, p. 48), Dörnyei and Otto tried to define it as “... dynamically changing cumulative arousal in a person that initiates, directs,

coordinates, amplifies, terminates, and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritised, operationalised, and (successfully or unsuccessfully) acted out” (1998, p. 65). Although various motivation theories continue to develop, it is still possible to study newer motivation perspectives together in relation to the earlier models (Dörnyei, 2005).

Regarding the ESP motivation, the importance of identifying learners’ specific needs is usually emphasized. Dudley-Evans and St John (1998) argued that ESP motivation of students depends on linking the English language to their main subject courses and the target-profession. Medical and healthcare students have to “grasp technical language of the discipline quickly; need to be able to function effectively in the kinds of communicative situation that recur frequently in medical interaction; and they particularly need advanced communication skills to deal with difficult and stressful situations” (Lu and Corbett, 2012, p. 4). Therefore, to study such a demanding, technical discipline, students will be more motivated when learning in their English language course about topics they can relate to. In 2013, Malcom revealed in her research that medical students were more motivated when authentic medical texts as well as relevant course materials were used during the course. There are different genres and medical situations with the relevant topics and authentic texts that are learned during the Medical English course, e.g. simulated case conferences, listening and reporting, reading and reporting, preparing and presenting short talks and papers based on a case, or on a medical topic, doctor-patient role plays, uses of euphemism and metaphor, writing case reports, learning a large corpus of technical and specialized terms, adopting an academic medical vocabulary, practicing pronunciation of difficult technical and professional words, pair-speaking activities (Ferguson, 2013). Teachers’ basic roles in a Medical English course are more as “planners, orchestrators and monitors of student activity than as language instructors” (Ferguson, 2013, p. 257).

1.2. Related Studies

Numerous studies have already been carried out on the subject of motivation and its impact on the acquisition of a foreign language. Mona Faisal Al-Qahtani (2013) investigated motivation towards studying English of the first year Applied Medical Sciences students (Female section) at the University of Dammam in Saudi Arabia. In the research, students’ motivation was characterized as positive, and there were no significant differences in their ‘integrative’ or ‘instrumental’ reasons for studying English as a second language. The students’ goal of language learning was not just to

complete undergraduate studies, but they believed that language learning is essential for their lifelong learning.

Al-Tamimi and Shuib (2009) published their study of Petroleum Engineering Undergraduates' motivation and attitudes towards learning the English language at Hadhramout University of Sciences and Technology. In their study they examined 81 petroleum engineering students' motivation regarding three motivational constructs (instrumental, integrative and personal motivation). The results of their study indicated that students in learning the English language predominantly use instrumental orientation, although the personal reasons for learning English were also considered very important.

Zanghar (2012) in his thesis examined instrumental and integrative motivation for studying English among undergraduate Libyan students, and the connection between motivation and their achievement in learning English as a foreign language. Forty students participated in the study and data showed that Libyan students were slightly more integratively motivated for learning English and no statistically significant correlation between students' motivation and their achievement was revealed.

In Croatia, Mihaljević-Djigunović has investigated motivation and its role in the foreign language acquisition (Mihaljević-Djigunović 2002, Mihaljević-Djigunović 2007, Mihaljević-Djigunović and Bagarić 2008). The author studied learners' of the English language individual differences within the aspects of affective characteristics. Attitudes towards the English language, learning and teaching, motivation and fear, aspiration and contentment were some of the analysed aspects. The study was conducted among primary and secondary school learners and included 2137 participants. The results showed that secondary learners had more favourable general profile than primary school learners.

Martinović and Poljaković studied attitudes towards ESP at the University of Zadar in 2010. In their study, among other variables students highly rated items connected with practical aspects of knowing English (instrumental variable). Additionally, the integrative variable of ESP motivation was positively valued by almost half of the students. More recently, Pavičić Takač and Berka (2014) studied three components of EFL motivation (pragmatic-communicative, affective and integrative) on vocational and grammar school learners in Croatian socio-educational context and found that pragmatic-communicative motivation, followed by affective motivation were the powerful motivators in their sample.

2. Aim

Considering above mentioned global changes as well as the increasing demand and imperative on medical and healthcare professionals for ESP knowledge, the authors were interested in finding out if these changes have influenced the students, future medical and healthcare professionals in any way, i.e. whether the students have become aware of the increasing need for English language knowledge, and therefore, whether they are motivated to learn ESP, i.e. Medical English. The study is interested in the following research questions: 1. Are the students of the Faculty of Health Studies and Faculty of Medicine motivated for learning the ESP? 2. Is their motivation instrumental, integrative or personal? Which reasons (integrative, instrumental or personal) were preferred for studying ESP?

3. Method

3.1. Sample

A total of 242 final years' students participated in the study, among them a total of 180 (74.4%) female students and 62 (25.6%) male students filled out a questionnaire. 107 students (44.2%) studied at the Faculty of Medicine and 135 students (55.8%) at the Faculty of Health Studies from the University of Rijeka. The students enrolled in eight different study programmes completed a questionnaire anonymously at the end of the academic year 2015/16. The study programmes in question at the Faculty of Medicine were: Integrated undergraduate and graduate study programme of Medicine (83 students; 34.3%), Integrated undergraduate and graduate study programme of Dental Medicine (24 students; 9.9%). The study programmes at the Faculty of Health Studies were: Graduate study programme of Physiotherapy (20 students; 8.3%), Professional studies of Nursing (54 students; 22.3%), Physiotherapy (21 students; 8.7%), Midwifery (17 students; 7%), Medical-Laboratory Diagnostics (14 students; 5.8%), and Radiological Technology (9 students; 3.7%). Except for the Study of Dental Medicine, the ESP is an obligatory course for all study programmes for a minimum of two semesters. The students enrolled in the Study of Dental Medicine can choose ESP as an elective course. The age range of the students was from 21 to 52 years, which makes the average age of students 28.58 years. The average number of years of studying English language in our sample was 10.37 (SD 5.1); 194 (82.1%) students studied English more than eight years, while 22 students (9.3%) of our sample didn't study English language at all. The average number of years studying ESP was 4.11 years (SD 2.96), 201 (84.8%) students studied ESP for one or more years, 142 (59.9%) of them studied ESP for more than 3 years, while 36 students (15.2%) claimed they did not learn ESP at the moment of assessment.

3.2. Instrument

The questionnaire constructed for this research was divided into four parts. The first part of the questionnaire included demographic variables about the study programme, the year of study, gender, age, the length of learning English as a second language, and the length of learning ESP, as well as the students self-assessment of their English language skills in accordance with the Common European Framework of Reference for Languages – CEFR. In the second part, 19 items related to students’ motivation towards learning ESP were mostly taken from the Attitude/Motivation Test Battery (Gardner, 1985), and Cooper and Fishman’s (1977) Personal Motivational Construct, and then were adjusted and modified to meet the necessities of the present study, to determine the students’ motivational orientation towards learning ESP. The Five-point Likert scale was used in the second part of the questionnaire ranged from level 1, meaning Strongly Disagree, to level 5, meaning Strongly Agree. The questionnaire was written in the Croatian language. The results were analysed using Statistical Packages for the Social Sciences (SPSS).

4. Results and Discussion

4.1. Students’ self-assessment of English language skills

The students were asked to self-assess their English language skills. The self-assessment part of the questionnaire was compiled in accordance with Common European Framework of Reference for Languages – CEFR. Students who self-assessed their English language skills as A1 or A2 CEFR level are considered to be *basic users* of the language (22.9%). Those who self-assessed their English language skills as B1 or B2 are considered to be *independent users* (60.6%), and those who self-assessed their language skills as C1 and C2 (16.5%) are considered *proficient users* of the language. The self-assessment results are shown in the Table 1.

Table 1. Students’ self-assessment of the knowledge of English language.

Level	Frequency	Percent
A1	22	9.3%
A2	32	13.6%
B1	74	31.4%
B2	69	29.2%
C1	25	10.6%
C2	14	5.9%
Total	236	97.5%

Note: For an explanation of the levels, see footnote⁶.

The majority of students in our sample assessed themselves as independent users of the English language. Boud argued that self-assessment is essential for students' motivation and effective learning (1995). Self-assessment is certainly important for the "development of autonomous learning skills" (Oscarson, 2009, p. 6) and raising individual's competencies. Self-assessment is considered to be student's strategy for gaining an "insight into his/her strengths and weaknesses" (Oscarson, 2009, p. 31). Once aware of their weaknesses, students could devote more attention to improve them and work harder to try to overcome them. It is to be assumed that the students' self-assessment of the English language (levels B1 and B2) would boost their motivation and desire for improving their language proficiency even after the completion of the study.

4.2. Motivation towards learning ESP

The aim of the study was to recognise the importance of students' motivation towards learning ESP. Students of the medical studies "may *want* to study English for a number of personal reasons" (Lu and Corbett, 2012, p. 181). In order to determine their preferred motivation, students had to rate 19 items divided into three subscales (according to motivational constructs) ranged from level 1, meaning Strongly Disagree, to level 5, meaning Strongly Agree.

The factor analysis was conducted to verify the construct validity of the questionnaire, and Cronbach's α values for each factor were computed to verify the reliability. The principal component analysis with oblimin rotation with Kaiser Normalization provided an acceptable three-factor solution which accounted for 69.1% of the total variance. The Kaiser – Meyer – Olkin (KMO) overall measure of sampling adequacy was 0.866 and Bartlett's test of Sphericity was significant ($p = 0.000$). Seven of the items were excluded because they reduced the reliability estimates; however on the basis of the remained short version of 12 items and their content, the factors can be reliably explained. In each of the three subscales, items loading above .30 were considered. The results of the factor analysis produced a clean factor structure with relatively higher loadings on the appropriate factors. Table 2 shows the factors best solution that emerged from the analysis, and the items (variables) loaded on each factor. The reliability of each of the three subscales showed satisfactory internal consistency. The Cronbach alpha coefficient for Factor 1 was .857. Factor 1 consists

6 Common European Framework of Reference for Languages – CEFR, published by the Council of Europe in 2001, describes standards and competences that have to be achieved at various stages of language learning. Retrieved from <http://europass.cedefop.europa.eu/sites/default/files/cefr-en.pdf>

of 4 items and represents the first subscale of students' Instrumental orientation towards learning ESP explaining 45.37% of the total variance. The Cronbach alpha for Factor 2 was .865 containing 4 items measuring Personal motivation subscale. This factor explained 13.97% of the total variance. The Cronbach's alpha score for Factor 3 was .767. Factor 3 consists of four items related to students' Integrative motivation towards learning ESP and explained 9.76% of total variance (Table 3).

Table 2: Factor Analysis Results.

	Factors/subscales			Communalities
	1	2	3	
In order to gain greater recognition and respect from others for my work. (4)	.919			.761
It will enable me to work on leading positions and to make progress easier. (5)	.861			.766
It will enable me to work on job positions with better income. (2)	.800			.762
It will enable me more opportunities for employment. (1)	.599			.631
I enjoy learning foreign languages including ESP. (16)		-.912		.762
I am looking forward to learn and improve the ESP knowledge in the future. (19)		-.893		.781
ESP language skills enrich me as a person. (18)		-.750		.661
I want to speak English more fluently. (17)		-.719		.703
Because of traveling and getting to know other countries and cultures. (11)			.856	.677
It will enable me to move to Anglophone countries. (12)			.735	.630
Due to business collaboration and easier communication with colleagues from other countries.(15)		-.347	.642	.629
It will enable me to participate in the activities of other cultural groups. (10)			.482	.529

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Table 3: Factor Analysis results of motivation towards learning ESP questionnaire.

	Mean	Minimum	Maximum	Range	Variance Explained	Cronbach' s Alpha
Factor 1 Instrumental Motivation	.601	.455	.727	.272	45.37	.857
Factor 2 Personal Motivation	.624	.523	.708	.185	13.97	.865
Factor 3 Integrative Motivation	.456	.416	.506	.090	9.76	.767

All three motivational constructs were highly rated. According to the results (Table 4), the highest mean scores among the three motivational constructs obtained integrative motivation ($M= 4.46$, $SD=.59$). Integratively motivated learners are inclined “to know more of the culture and values of the foreign language group... to make contact with the speakers of the languages... to live in the country concerned” (Wilkins, 1972, p. 184). The students of medical and healthcare studies are *interested in the culture of the target language, they would like to get to know the countries and cultures of the target language*, not to mention that they *would like to move to Anglophone countries*. Students in our sample would like to learn ESP so that they could *participate in the cultural activities of the foreign language groups* and they think that with ESP language proficiency they could *actualize better business collaboration and easier communication with colleagues from other countries*.

Personal or developmental motivation, referring to personal development or personal satisfaction, took the second place in emphasizing the most important motivational constructs ($M=4.13$, $SD=.84$). Students *enjoy learning foreign languages including ESP*. Their enjoyment in learning foreign languages is one of the main factors of language learning motivation (Gardner, 2006). They *want to speak English more fluently*, which means that they are already confident in expressing themselves in English, and also well aware of the importance of English, which is very important for easier acquiring and better mastering of the language.

Students *are looking forward to learn and improve the ESP knowledge in the future*, which means, our students realize that the process of acquiring a foreign language is gradual, and that it needs to be profound. They are also aware of the importance of the concept of continuing education and lifelong learning, which is the imperative for today’s professionals. The item 11 (*ESP language skills enrich me as a person*) also points out students’ awareness of the importance of ESP. Learning a foreign language

is known to be good for improving one’s creativity, increasing one’s self-confidence, enriching personal skills, and finally for personal growth.

Table 4: Mean ratings of factors and items.

Motivational orientations	Item	Mean	Std. Deviation
Instrumental	1. It will enable me more opportunities for employment. (1)	4.42	.890
	2. It will enable me to work on job positions with better income. (2)	4.29	.994
	3. In order to gain greater recognition and respect from others for my work. (4)	3.79	1.076
	4. It will enable me to work on leading positions and to make progress easier. (5)	3.92	1.079
Integrative	5. It will enable me to participate in the activities of other cultural groups. (10)	4.22	.848
	6. Because of traveling and getting to know other countries and cultures. (11)	4.48	.792
	7. It will enable me to move to Anglophone countries. (12)	4.57	.755
	8. Due to business collaboration and easier communication with colleagues from other countries.(15)	4.55	.675
Personal	9. I enjoy learning foreign languages including ESP. (16)	3.80	1.154
	10. I want to speak English more fluently. (17)	4.34	.888
	11. ESP language skills enrich me as a person. (18)	4.29	.878
	12. I am looking forward to learn and improve the ESP knowledge in the future. (19)	4.06	1.033

The instrumental type of motivation “referred to acquiring a language as a means for attaining instrumental goals; furthering a career, reading technical material, translation, and so forth” (Brown, 2000, p. 162), had the least impact on students’ ESP language learning (M= 4.10, SD= .85). The students of medical and healthcare studies are not learning ESP just for getting a benefit from it, or for their educational

or career advancement, as seen in the item 3 (*to gain greater recognition and respect from others for my work*), which showed the least scores.

The results have shown that the students' motivation is more integratively than instrumentally oriented. The students' primary motive to learn ESP is not just for utilitarian reasons (e.g. *to work on job positions with better income*), the students want to learn ESP because they are interested in the culture of Anglophone community, and have a desire for interaction with the community. The students also believe that better ESP language skills would enable them to travel and to get to know other countries and cultures. Although instrumental motivation is also highly rated, and the students believe that language skills would help them in their profession, enable progress and fulfil certain pragmatic goals, such as, a better position at work, and better paid jobs, students' motivation is more guided by integrative reasons, e.g. they want to improve their ESP proficiency in order to communicate with colleagues from other countries, also bearing in mind the possible migration to Anglophone countries. These results could be viewed to be in compliance with the social tendencies that are triggered by globalisation (as mentioned earlier).

4.3. Correlations of the Factors with other variables

To measure the strength and direction of a linear association between the variables, Pearson correlation coefficient was calculated. There was a weak positive correlation between the number of years of studying English and the self-assessment of the English knowledge ($r = .16, p = .015$). Longer studying of English is related to better self-assessment. Students' better self-assessment is in moderate positive correlation with the number of years of studying English ($r = .44, p = .000$), and weak positive but significant correlation with the years of studying ESP. The older the students were, the self-assessment of the knowledge of English language was lower ($r = -.45, p = .000$). The results are summarised in Table 5.

The results of the t-test between the results of male and female students with regard to their motivation towards studying ESP showed no significant differences. The results of the t-test between the variables of students' motivation towards studying ESP and the students' age groups showed significant differences (Table 6). The students were divided into two groups according to their age. The first group comprised the students under 26 years of age, and the second group consisted of students aged 27 and older. The results showed that there was no significant difference in personal motivation between the two age groups, but a statistically significant difference was found in integrative and instrumental motivational orientation between the two students' groups (according to their age). Younger students (aged 26 or less) are more

instrumentally (M=4.23, SD=.71) and integratively (M=4.53, SD=.51) oriented towards learning ESP than are the students of 27 years of age and older.

Table 5: Correlation matrix between Factors 1, 2, and 3 and Continuous Variables.

	PERSONAL MOTIVATION	INTEGRATIVE MOTIVATION	AGE	LENGTH OF STUDYING ENGLISH	LENGTH OF STUDYING ESP	SELF-ASSESSMENT OF ENGLISH
INSTRUMENTAL MOTIVATION	.44** .000	.55** .000	-.12 .068	.16* .015	.06 .320	.16* .020
PERSONAL MOTIVATION		.51** .000	-.02 .707	.07 .247	.01 .888	.26** .000
INTEGRATIVE MOTIVATION			-.17** .008	.14* .029	.10 .138	.24** .000
AGE				-.33** .000	-.22** .001	-.45** .000
LENGTH OF STUDYING ENGLISH					.56** .000	.44** .000
LENGTH OF STUDYING ESP						.20** .002

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Table 6: The differences in instrumental, personal and integrative motivation between the students' age groups.

	Age group	N	Mean	Std. Dev.	t	df	p	95% Confidence Interval of the Difference	
								Lower	Upper
INSTRUMENTAL MOTIVATION	≤ 26	155	4.2290	.71450	2.527	230	.017*	.06260	.50585
	≥ 27	77	3.9448	.96708					
PERSONAL MOTIVATION	≤ 26	155	4.2000	.78252	1.208	228	.097	.08836	.36836
	≥ 27	75	4.0600	.90404					
INTEGRATIVE MOTIVATION	≤ 26	154	4.5373	.50873	2.647	229	.001*	.05520	.37662
	≥ 27	77	4.3214	.71273					

By comparing variables of self-assessment and motivation (Table 7), the results showed that the students, who self-assessed their English language skills as better, were more integratively motivated to learn the language (M=4.57, SD=.528) than

students who assessed their language skills with a lower degree ($M=4.35$, $SD=.63$). Boud claimed that self-assessment as a “positive feedback and an appreciation of areas of strength has the effect of helping individuals remain motivated to build on their strengths and improve practice in areas of weakness” (1995, p. 125).

Table 7: The differences in instrumental, personal and integrative motivation between self-assessment students groups.

	Self-assessment students groups	N	Mean	Std. Dev.	t	df	p	95% Confidence Interval of the Difference	
								Lower	Upper
INSTRUMENTAL MOTIVATION	A1, A2, B1	127	4.0059	.86055	-1.864	233	.765	-.42590	.01178
	B2, C1, C2	108	4.2130	.83429					
PERSONAL MOTIVATION	A1, A2, B1	125	3.9720	.86906	-2.770	231	.343	-.51932	-.08761
	B2, C1, C2	108	4.2755	.79126					
INTEGRATIVE MOTIVATION	A1, A2, B1	126	4.3492	.63014	-2.840	232	.041*	-.36913	-.06672
	B2, C1, C2	108	4.5671	.52796					

The most mobile Croatian professions, according to regulated professions database statistics⁷, which have migrated to other EU countries so far, are doctors of medicine and second level nurses. The most of these professionals (32%) migrated to the UK.⁸ These statistics are actually in accordance with the results of our research, which provided evidence that integrative motivation of the students of medical and healthcare studies towards ESP learning was the primary source of motivation. There are many studies that obtained the same results regarding students’ integrative motivation. Gardner and his colleagues asserted that integratively driven students would acquire second language more successfully. They claimed that integratively motivated learner, who had more positive attitudes and enjoyed studying about foreign language countries, would have higher motivation and long-term motivation, necessary for the second language acquisition (Gardner, 1960, 1972, 1980).

Benson (1991) conducted research among 300 first-year students to assess their motivation towards learning English in Japan. The results showed that Japanese students were more integratively and personally than instrumentally motivated. The

7 The European Commission regulated professions database contains information on regulated professions, statistics on migrating professionals, contact points and competent authorities, as provided by EU Member States, EEA countries and Switzerland. Retrieved from <http://ec.europa.eu/growth/tools-databases/regprof/index.cfm> (accessed in November, 2017)

8 Ibid., Retrieved from <http://ec.europa.eu/growth/tools-databases/regprof/index.cfm> (accessed in November, 2017)

results in Zanghar's (2012) thesis among undergraduate Libyan students showed that Libyan students were slightly more integratively motivated towards learning English.

In Bobkina and Dominguez Romer (2013) study of Modern Languages Humanities students' motivation the instrumental construct was a primary source of students' motivation towards learning English, although some items regarding integrative motivation also achieved high scores. In Al-Tamimi and Shuib (2009) research apart from petroleum engineering students' instrumental motivation, which had the highest score, personal motivation was also highly rated. Arslan and Akbarov (2012) investigated students' attitudes towards General English and ESP at the International University of Sarajevo. The students of the IUS found English interesting to learn, and they were aware of the importance of English and thought that the knowledge of English would be useful to them in their future jobs. The majority of students would like to learn English connected with their study field (ESP), which, in their opinion, would be helpful for their future careers.

In some studies there may not be present any dominance of the three constructs of motivation [e.g. Al-Qahtani (2013)]. Al-Quyadi (2002) in Yemen conducted a comprehensive study among 518 students of seven Faculties of Education. The aim of the research was to study the nature of psychological variables of learning English by EFL learners according to attitudes and motivation. The final results indicated that the Yemeni EFL students were both instrumentally and integratively motivated toward the English language. In 2012, Nakhon Kitjaroonchai, and Tantip Kitjaroonchai studied the types of motivation of 137 English major Thai students. The results showed that both instrumental and integrative motivation had high levels, although students were slightly more instrumentally motivated.

5. Conclusion

This study aimed at finding out whether the students of medical and healthcare studies were motivated to learn ESP, and what were their motivational patterns. We found satisfactory construct validity of our three-factor structure motivation towards learning ESP questionnaire with 12 items. The results indicated that the students of medical and healthcare studies were more integratively motivated, which means that students learn ESP in order to integrate in the target language society or to better collaborate with the colleagues of the target language community. These motivational factors should be incorporated into course planning, e.g. cultural contents could be added to the curriculum. Therefore, the course of ESP should be designed in order to meet the purpose of students' learning foreign language. As for personal reasons, students enjoy learning English, which is one of the main factors of learners'

motivation for learning foreign languages (Gardner, 2006). The course should be also planned to keep the motivation of students high, since more motivated students invest more effort in their academic endeavour.

Because of the nature of its complexity, motivation variables are difficult to conceptualise and assess. Every student has his/her own motivational drive to attain a goal. Since they have different goals and expectations from language learning, it is very important to recognise their needs. Our study was restricted to investigating only a segment of motivational aspects, and did not take into consideration other important aspects which are unique to each language learner, such as students' age, language anxiety, attitudes towards learning situation (emotional, cognitive, and behavioural), parental encouragement, learning achievements, learning context, aptitudes, and so forth. These aspects should also be integrated in the future studies because they have a direct effect on the language acquisition. For future studies, however, it would also be desirable to employ qualitative research methods to gather information, such as interviews and field observation, so that participants can freely express their opinion and attitudes towards learning ESP, as well as provide constructive feedback.

Nevertheless, considering above mentioned arguments motivation is an important element in foreign language learning, especially for the acquisition of ESP. Students may become discouraged and lose interest in learning ESP unless they are taught effectively, or constructive learning methods are implemented. In our case, to motivate Medical English learners for acquisition complex, career-specific and highly technical professional language rich in colloquialisms, acronyms and abbreviations, the ESP teachers should improve their motivational practices, i.e. identify learners' needs, modernise their teaching methods, use appropriate activities, and relevant, up-to-date materials. Another important element that should be in focus in the teaching process is learners' roles. Motivated learners will pay attention in the classroom, actively participate, and finally achieve their ultimate goal.

References

1. Al-Qahtani, Mona Faisal. "Relationship between English Language, Learning Strategies, Attitudes, Motivation, and Students' Academic Achievement." *Education in Medicine Journal* 5 (3) (2013): 19-29.
2. Al-Quyadi, Ahmed. "Psycho-sociological Variables in the Learning of English in Yemen." PhD Thesis. Bihar: Bhagalpur University, 2000.
3. Al-Tamimi, Atef, and Munir Shuib. "Motivation and Attitudes towards Learning English: A Study of Petroleum Engineering Undergraduates at Hadhramout University of Sciences and Technology." *GEMA Online Journal of Language Studies* 9 (2) (2009): 29-52.
4. Arslan, U. Mahmut, and Azamat Akbarov. "EFL Learners Perceptions and Attitudes towards English for the Specific Purposes." *Acta Didactica Napocensia* 5 (4) (2012): 25-30

5. Bobkina, Jelena, and Elene Dominguez Romero. "English Language Learning in Tertiary Education: An Approach to Undergraduate Motivation and Attitudes towards English as a Core Subject in Modern Languages Degrees", 2013. DOI: 10.13140/2.1.3074.8483 .Available from: Jelena Bobkina, Jan 05, 2015
6. Boud, David. *Enhancing learning through self-assessment*. New York: RoutledgeFalmer, Taylor & Francis Group, 1995.
7. Brown, H. Douglas. *Principles of Language Learning and Teaching*. 4th edition. San Francisco State University: Longman, 2000.
8. Cooper, L. Robert, and Joshua A. Fishman. "A Study of Language Attitudes." In J. A. Fishman, R. L. Cooper, and A. W. Conrad (Eds.). *The Spread of English: The Sociology of English as an Additional Language*. Rowley, Mass.: Newbury House (1977): 239-276
9. Crystal, David. *English as a Global Language*. 2nd edition. New York: Cambridge University Press, 2003.
10. Dörnyei, Zoltan. "Conceptualizing Motivation in Foreign-Language Learning." *Language Learning* (1990): 45-78.
11. Dörnyei, Zoltan. "Motivation in Second and Foreign Language Learning." *Language Teaching* 31 (1998): 117-135. Published online: June 12 2009. doi:10.1017/S026144480001315X.
12. Dörnyei, Zoltan, and Istvan Ottó, I. "Motivation in Action: A Process Model of L2 Motivation." *Working Papers in Applied Linguistics* 4 (1998): 43-69.
13. Dörnyei, Zoltan. "New Themes and Approaches in Second Language Motivation Research." Cambridge, New York: Cambridge University Press. *Annual Review of Applied Linguistics* 21 (2001): 43-59.
14. Dörnyei, Zoltan. *Motivational Strategies in the Language Classroom*. Cambridge, New York: Cambridge University Press, 2001.
15. Dörnyei, Zoltan. *The Psychology of the Language Learner – Individual Differences in Second Language Acquisition*. New Jersey: Lawrence Erlbaum Associates, Inc. Publishers, 2005.
16. Dudley-Evans, Tony, and Maggie Jo St John. *Developments in English for Specific Purposes. A Multi-Disciplinary Approach*. Cambridge: Cambridge University Press, 1998.
17. Ferguson, Gibson. "English for Medical Purposes." in *The Handbook of English for Specific Purposes*, First Edition, edited by Brian Paltridge and Sue Starfield, 243-261. John Wiley & Sons, Inc., 2013.
18. Gardner, Robert C. "Motivational Variables in Second-Language Acquisition." PhD diss., McGill University, Montreal, 1960.
19. Gardner, Robert C., and Wallace E. Lambert. *Attitudes and Motivation in Second Language Learning*. Rowley, MA: Newbury House, 1972.
20. Gardner, Robert C. "On the Validity of Affective Variables in Second Language Acquisition: Conceptual, Contextual, and Statistical Considerations." *Language Learning* 30 (2) (1980): 255-270.
21. Gardner, Robert C. "Learning another Language: A True Social Psychological Experiment." *Journal of Language and Social Psychology* 2 (1983): 219-240.
22. Gardner, Robert C. "Social Psychology and Second Language Learning: The Role of Attitudes and Motivation, London, Ontario: Edward Arnold Publishers." *Language Journal* 90 (2) (1985): 151-168.
23. Gardner, Robert C. "The Socio-educational Model of Second Language Acquisition: A Research Paradigm." *EUROSLA Yearbook* 6 (2006): 237-260.
24. Gardner, Robert C. "Motivations and Second Language Acquisition." *Porta Linguarum* 8 (2007): 9-20.
25. Gordin, Michael D. *Scientific Babel: How Science Was Done Before and After Global English*. Chicago, London: University of Chicago Press, 2015.
26. Hutchinson, Tom, and Alan Waters. *English for Specific Purposes: A Learning-Centred Approach*. Cambridge: Cambridge University Press, 1987.
27. Kitjaroonchai, Nakhon, and Tantip Kitjaroonchai. "Motivation toward English Language Learning of Thai Students Majoring in English at Asia-Pacific International University." *Catalyst, Institute Press*, 7 (1) (2012): 21-38.

28. Lu Peih-ying, and John Corbet. *English in Medical Education: An Intercultural Approach to Teaching Language and Values*. Bristol, Buffalo, Toronto: Multilingual Matters, 2012.
29. Malcolm, Diane. "Motivational Challenges for Gulf Arab Students Studying Medicine in English." In *International Perspectives on Motivation: Language Learning and Professional Challenges*, edited by Ema Ushioda, 98-116. Basingstoke: Palgrave Macmillan, 2013.
30. Martinović, Anna, and Ivan Poljaković. „Attitudes towards ESP among University Students.” *Fluminensia*, 22 (2) (2010): 145-161.
31. Mihaljević-Djigunović, Jelena. *Strah od stranoga jezika – kako nastaje, kako se očituje i kako ga se osloboditi*. Zagreb: Naklada Ljevak, 2002.
32. Mihaljević-Djigunović, Jelena. "Afektivni profil, aspiracije i zadovoljstvo nastavom engleskog jezika kod hrvatskih učenika." Zagreb. *Metodika* 8 (1) (2007): 104-114.
33. Mihaljević-Djigunović, Jelena, and Vesna Bagarić. "A Comparative Study of Attitudes and Motivation of Croatian Learners of English and German." Zagreb. *SRAZ* 52 (2008): 259–281.
34. Montgomery, Scott. *Does Science Need a Global Language? English and the Future of Research*. Chicago, London: University of Chicago Press, 2013.
35. Oscarson, Anne D. *Self-Assessment of Writing in Learning English as a Foreign Language: A Study at the Upper Secondary School Level*. Göteborg: Acta Universitatis Gothoburgensis, 2009.
36. Pavičić Takač, Višnja and Nives Berka. "Motivation in foreign language learning: a look at type of school environment as a contextual variable." *Explorations in English Language and Linguistics* 2.2. (2014): 77-103.
37. "The Handbook of English for Specific Purposes", ed. by Brian Paltridge and Sue Starfield. John Wiley & Sons, Inc, 2013.
38. Wilkins, David A. *Linguistics in Language Teaching*. London: Edward Arnold, 1972.
39. Zanghar, Ahmed. „Instrumental and Integrative Motivation among Undergraduate Libyan Students of English as a Foreign Language.“ Thesis, Colorado State University, 2012.

Motivacija za učenje engleskog jezika struke studenata medicine i zdravstvenih studija

SAŽETAK

U današnjem suvremenom svijetu koji je obilježen globalizacijom, veliki su zahtjevi za globalnom interakcijom koja stavlja naglasak na potrebu za engleskim jezikom. Cilj ovoga rada je prepoznati važnost motivacije studenata za učenjem engleskog jezika struke, odnosno medicinskog engleskog. Da bi se odredila motivacija koju studenti preferiraju, u istraživanje je uključeno ukupno 242 studenta medicine i zdravstvenih studija. Rezultati faktorske analize glavnih komponenti upitnika pokazali su trifaktorsku strukturu upitnika s instrumentalnom, integrativnom i osobnom motivacijom kao subskalama. Cronbach alfa koeficijenti subskala pokazuju visoku unutarnju pouzdanost. Rezultati su pokazali da su ispitanici u našem uzorku, studenti medicine i zdravstvenih studija, više integrativno motivirani. Ispitanici koji su svoje znanje engleskog jezika procijenili boljim imali su veću motivaciju za učenje jezika struke.

Ključne riječi: motivacija, engleski jezik struke, studenti medicine i zdravstvenih studija.