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INTERRELATIONSHIP BETWEEN LEARNING ENGLISH LANGUAGE AND STUDENTS' MEDICAL EDUCATION

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SUMMARY

Introduction Medical students and researchers need to learn English, not only because it is the means of teaching and learning, but also because its knowledge is necessary in their research activities.

Objective The objective of this study was to determine the importance of the study of English language learning for student medical education.

Method The investigation was carried out among students of the Medical Faculty of Niš in 2006. The investigation included 312 students of all years of study and departments and was conducted using a questionnaire.

Results Average rate in writing skill was 4.64 ± 0.6 , in speaking skill 4.62 ± 0.6 , while the students of the College of Nursing showed significantly lower average value. The average value of learning the foreign language was: writing (3.16 ± 1.09); speaking (3.27 ± 1.1); reading (3.84 ± 1.0) and understanding (3.85 ± 1.1). The students of the College of Nursing showed significantly lower grades in comparison to the other three Departments. The comparison analysis was done in order to determine the relation of writing and speaking skills in mother tongue and foreign language. As for the English language, the relation of writing and speaking skills was very strong (Pearson $C=0.641$, $p<0.01$), while in the mother tongue it was slightly lower (Pearson $C=0.44$, $p<0.01$).

Conclusion The percentage of students satisfied with their economic status was 55% and with social status 79%. The writing and speaking skills in the mother tongue and in English were significantly positively associated with students' satisfaction with their social and economic status, while satisfaction with achievements at the Faculty was associated only with the ability of verbal expression in the mother tongue. The students' satisfaction with their social and economic status was mostly associated with good oral skills in English, which indicates that good knowledge of a foreign language is of great influence on the status of an individual in a society.

Key words: literacy; foreign language teaching; medical education

INTRODUCTION

By extending the notion of literacy beyond the strict limits of reading and writing skills, and even beyond the skills of literary interpretation, we improve our understanding of human communication needs and the way of social functioning. This comprises many aspects of human life and behaviour habits, such as intention for travelling, need for experience exchange, social adaptation, selection of work and faculty, gender relationship etc. [1].

Medical doctors and researchers need to learn English, not only because it is a medium of teaching and learning, but also because it is the medium of publishing their research work. The international and national rating criteria of the scholarly status of prestigious biomedical journals also include attention to the linguistic aspects of the published articles.

Central questions regarding the students' language needs and skills are being revisited. The recent psychographic and demographic changes of language learners have ushered in a wave for the need to develop English language skills of medical personnel to communicate effectively with their contemporaries across the globe and also with their patients [2].

OBJECTIVE

The basic objective of this study was to determine the importance of English language learning in students' medical education. The study investigated the relationship between students' mother tongue literacy, foreign language literacy along with their achievements in medical studies.

METHOD

The investigation represents a prospective study carried out among students of the Medical Faculty in Niš during 2006. The investigation included 312 students of all study years and departments (medicine, dentistry, pharmacy and nursing) and was conducted by means of a questionnaire consisting of 20 questions (the questionnaire enclosed).

Students' performance in medicine was evaluated according to the achievements at the Faculty and their satisfaction with the achieved results. The evaluation of language proficiency was estimated based on students' skillfulness in oral and written communication, both in the mother tongue and foreign language (four skills – reading,

writing, speaking and understanding). The skills were graded from 1-5 by the students themselves.

The results were presented with standard descriptive methods (average values, standard deviation, frequency) and were analyzed by statistical tests (χ^2 -test, Student's t-test, analysis of variance and binary logistic regression analysis).

RESULTS

The evaluation of writing and speaking skills, as well as the frequency of reading books in the mother tongue was graded by the students' themselves (1-5). The results are presented in Table 1.

The average writing skill value was 4.64 ± 0.6 in all Departments, whereby the analysis showed a significantly lower average value at the College of Nursing ($p < 0.01$). There was no significant difference in writing skill among other examined groups. The average speaking skill value was 4.62 ± 0.6 ; it was significantly lower in students of the College of Nursing ($p < 0.01$), whereas there was no significant difference among other examined groups. The habit of reading books was assessed in relation to a number of books read in a particular period. The average value of 3 ± 1 indicated that a great majority of students read one book monthly. Variations among frequency of reading habit were minimal and were of no significant difference (Table 1).

Writing skill was differently evaluated among Departments. The highest average grade was obtained at the Departments of Medicine and Pharmacy; it was significantly lower at the Department of Dentistry and the lowest at the College of Nursing, which was confirmed by T test. Speaking skill fluency was the highest among medical students, significantly lower among the students of dentistry and pharmacy, whereas it was the lowest among the College of Nursing students, which represents a statistically significant finding. A very high average grade for reading skill was obtained at the Departments of Medicine and Pharmacy; it was significantly lower at the Department of Dentistry and the lowest at the College of Nursing. Listening skill was the best among medical students, it was significantly lower at the Departments of Dentistry and Pharmacy and the lowest among the students of the College of Nursing, which represents a statistically significant finding (Table 2).

Writing skill in the mother tongue was in high correlation with the average grade of the writing skill in English (Pearson $C = 0.255$, $p < 0.01$), as well as with the average grade of the speaking skill in English (Pearson $C = 0.195$, $p < 0.01$).

There was a high correlation between the average grade of speaking skill in the mother tongue and the average grade of writing skill in English (Pearson $C = 0.234$, $p < 0.01$), as well as of the speaking skill in English ($C = 0.264$, $p < 0.01$).

Comparison analysis was done in order to estimate the correlation level between writing and speaking skills in the mother tongue, as well as in English. The correlation

TABLE 1. Knowledge of the mother tongue.

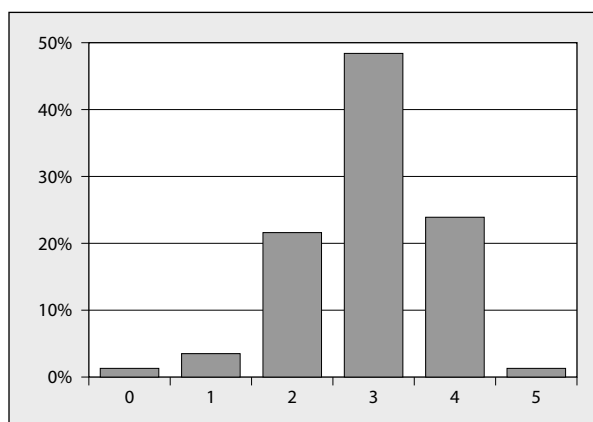
Department	Writing skill	Speaking skill	Reading books
Medicine	$4.66 \pm 0.6^*$	$4.68 \pm 0.5^*$	2.93 ± 1
Dentistry	$4.64 \pm 0.5^*$	$4.68 \pm 0.5^*$	3.05 ± 0.9
Pharmacy	$4.74 \pm 0.5^*$	$4.8 \pm 0.4^*$	3 ± 0.9
Nursing	4.36 ± 0.9	4.16 ± 1.08	3.03 ± 0.9
Total	4.64 ± 0.6	4.62 ± 0.6	3 ± 1

* $p < 0.01$ vs. College of Nursing

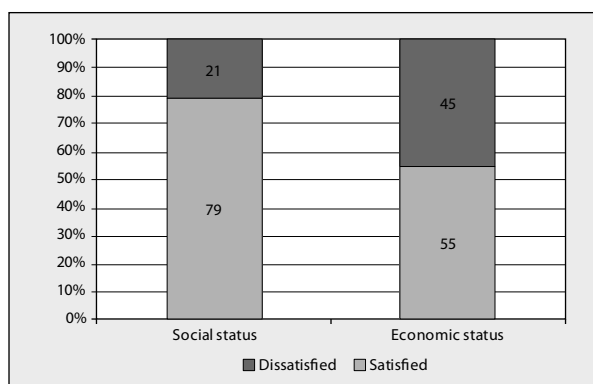
TABLE 2. Average value of students' foreign language skills.

Department	Writing	Speaking	Reading	Listening
Medicine	3.29 ± 1	$3.44 \pm 1.$	4.07 ± 0.9	4.09 ± 0.9
Dentistry	$2.94 \pm 1.1^*$	$3.21 \pm 1.1^*$	$3.54 \pm 1.1^*$	$3.63 \pm 1.2^*$
Pharmacy	$3.4 \pm 0.93^\#$	$3.11 \pm 1.1^*$	3.85 ± 0.8	$3.7 \pm 1^*$
Nursing	$2.5 \pm 1.08^{*\#}$	$2.5 \pm 1.1^{*\#}$	$2.92 \pm 1.2^{*\#}$	$2.73 \pm 1.2^{*\#}$
Total	3.16 ± 1.09	3.27 ± 1.1	3.84 ± 1.0	3.85 ± 1.1

* $p < 0.01$ vs. Medicine; # $p < 0.01$ vs. Dentistry; & $p < 0.01$ vs. Pharmacy



GRAPH 1. The grade of the achieved results at the faculty. 0 – no answer; 1 – dissatisfied; 2 – poorly satisfied; 3 – relatively satisfied; 4 – satisfied; 5 – completely satisfied



GRAPH 2. The percentage of students satisfied with their social and economic status in society.

TABLE 3. Relationship between writing and speaking skills in the mother tongue and English and satisfaction with achievements at the faculty.

Language	Skill	Achievements at the faculty	Social status	Economic status
Mother tongue	Writing	0.086	0.137	0.182
	Speaking	0.143	0.198	0.207
English	Writing	0.058	0.171	0.219
	Speaking	0.067	0.208	0.240

between speaking and writing skills in English was very high (Pearson $C=0.641$, $p<0.01$), while it was slightly lower in the mother tongue (Pearson $C=0.44$, $p<0.01$).

The grade of the students' achievements at the Faculty is presented in Graph 1; satisfaction with economic and social status is presented in Graph 2.

The relationship between writing and speaking skills in the mother tongue and English and the satisfaction with the achievements at the Faculty is presented in Table 3.

Speaking and writing skills in the mother tongue and English highly correlated with the students' satisfaction with their social and economic status. However, satisfaction with the achieved results at the Faculty showed correlation neither with the knowledge of English language nor with writing skill in the mother tongue. The quality of oral expression in the mother tongue was the only parameter that highly correlated with the achievements at the Faculty (Table 3).

DISCUSSION

Medical profession is highly competitive, and medical research is at the sharp end of that field. Motivation to learn English among students and doctors conducting medical research is therefore very much instrumental; they tend to have a very clear view of the language skills they require and of the target product, the research report, professing not to have the time to devote to acquiring skills irrelevant to their specific professional purpose.

The writing and speaking skills in the mother tongue were equally graded by the students of all the Departments except for the students of the College of Nursing who showed a significantly lower grade. The frequency of reading books was the same among all students. Writing, speaking, reading and listening skills in English were generally the highest at the Department of Medicine and the lowest at the College of Nursing.

A very high correlation between writing skill in English compared to low correlation that was present in the mother tongue might indicate the difference in the way of the perception of linguistic skills among students [3].

Considering the growth in international relations of our society with other nations and the extended interest toward contemporary growing technology and science throughout the world, learning the English language as an international language has found a greater importance compared to previous years.

It was shown that speaking and writing skill was in close correlation with satisfaction of students' social and economic status. This indicates that the better writing and speaking skills, the greater satisfaction with social and economic status.

However, satisfaction with the achievements at the Faculty correlated neither with English language knowledge nor with writing skill in the mother tongue. It was only the quality of speaking skill that contributed to better achievements at the Faculty.

Motivation has been widely accepted by both teachers and researchers as one of the key factors that influence the rate and success of second/foreign language learning. The original impetus in second/foreign motivation research comes from the social psychology since learning the language of another community simply cannot be separated from the learners' social dispositions towards the achievements at the faculty and community. Lambert [4] has proposed a social psychological model in which he has emphasized cognitive factors such as language aptitudes and intelligence, as well as affective factors, such as socio-economic status and social reputation. In his model, he proposes that the extent to which an individual successfully acquires a second language will depend upon personal striving towards intellectual and social success.

It should be emphasized that satisfaction with social and economic status is in a very high correlation to a good speaking skill in English, which indicates that proficiency in foreign language is greatly influential on personal status in the society. Finally, well-conceived and well-implemented language development programs for medical and other students are crucial to the programme success. The availability of qualified faculty, the creation of multiple-program pathways for transition to English, and support for transitioning students to all-English instruction provide the foundation for giving students access to innovative science and medicine programs [5].

Medical literature reflects an increasing awareness of the importance of communication. Therefore, it seems crucial that we show the students the range of autonomous options and raise their awareness of the different learning strategies that are open to them. It is the teacher's responsibility to enter into an authentic dialogue with learners, a dialogue that can lead to change through co-operation. Any change is likely to be more accepted if it is introduced in stages. Such an approach will help the majority to take responsibility to their own language development, which should in turn prove useful when the students have to use English in their professional lives.

As mentioned, motivation is crucial instrumental and integrative means of learning, social and cultural adaptation and success. Having a greater knowledge of these subjects can help teachers, textbook developers and the educational authorities to find new ways of improving the quality of teaching and learning English and to enable students to develop both their intellectual and scientific skills needed for further education, students' autonomy and global view of the society as a whole.

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УТИЦАЈ ПОЗНАВАЊА ЕНГЛЕСКОГ ЈЕЗИКА НА МЕДИЦИНСКО ОБРАЗОВАЊЕ СТУДЕНАТА

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КРАТАК САДРЖАЈ

Увод Студентима медицине је неопходно знање енглеског језика не само зато што је енглески језик данас средство подучавања и учења, већ и средство њиховог истраживачког рада.

Циљ рада Циљ рада је био да се утврди значај енглеског језика за медицинско образовање студената.

Метод рада Истраживање је обухватило 312 студената свих година и одсека Медицинског факултета Универзитета у Нишу током 2006. године, а изведено је применом упитника.

Резултати Просечне вредности за вештину писања биле су $4,4 \pm 0,6$, а за вештину говора $4,2 \pm 0,6$, при чему су оне биле значајно ниже код студената Одсека за здравствену негу. Просечна вредност познавања страног језика према вештинама била је: $3,16 \pm 1,9$ за писање, $3,27 \pm 1,1$ за говор, $3,4 \pm 1,0$ за читање и $3,85 \pm 1,1$ за разумевање. Код студената Одсека за здравствену негу забележене су значајно ниже оцене него код студената осталих одсека. Добијени резултати су упоређени како би се одредио однос између вештине писања и говора на матерњем и страном језику. Однос између вештине писања и говора на енглеском језику био је веома висок (Пирсонов коефицијент $0,641$; $p < 0,01$), а на матерњем значајно нижи (Пирсонов коефицијент $0,44$; $p < 0,01$).

Закључак Студената који су задовољни својим економским статусом било је 55%, а друштвеним статусом 79%. Вештина писања и говора на матерњем језику и на страном језику позитивно је повезана са задовољством друштвеним и економским статусом, док је задовољство постигнутим резултатима на факултету било повезано само с вештином усменог изражавања на матерњем језику. Задовољство студената својим друштвеним и економским статусом је углавном било повезано с вештином говора на енглеском језику, што указује на чињеницу да је добро знање енглеског језика од великог утицаја на статус појединца у друштву.

Кључне речи: писменост; подучавање страног језика; медицинско образовање

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