

LITERACY AND FOREIGN LANGUAGE TEACHING AS KEY FACTORS FOR SOCIO-ECONOMIC ADAPTATION OF STUDENTS' POPULATION - CHARACTERISTICS OF LITERACY AMONG DIFFERENT DEPARTMENTS AT THE FACULTY OF MEDICINE

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Language and communication are at the heart of the human experience. Reading and writing are the most powerful modes of formal learning and they are fundamental to intellectual inquiry and creativity in all disciplines. Literacy comprises not only reading and writing skills but also understanding of human communication needs and the way of social functioning. The aim of this study was to determine the importance of foreign language learning for students' socio-economic adaptation. The study investigated the relationship between students' foreign language literacy and their achievements in medical studies.

The investigation is a prospective study carried out among students of the Faculty of Medicine in Nis during June, 2006. The investigation included 312 students of all departments (medicine, dentistry, pharmacy and nursing) and was conducted by means of a questionnaire. We determined students' socio-economic adaptation, literacy in the mother tongue and foreign language (reading, writing, speaking and listening), and the ability of using modern technological achievements (computer work, Internet and SMS correspondence).

Writing and listening skills of the mother tongue are significantly lower at the Department of Nursing. There is no difference in using post-correspondence among groups, whereby dentistry students most often used modern means of communication. The percentage of students satisfied with their social status is the highest among students of medicine and pharmacy and the lowest among students at the Department of Nursing. The percentage of students satisfied with the economic status is the highest among students of medicine, slightly lower among students of dentistry and pharmacy, and the lowest among nurses. The average grade of achievements at the Faculty is the highest in the group of nurses, slightly lower in the group of pharmacy, and the lowest in the group of medicine and dentistry. Generally, the grades for foreign language skills were the highest at the Department of Medicine, slightly lower at Dentistry and Pharmacy Department and the lowest at the Department of Nursing.

Social and communication competence requires not only good knowledge of the mother tongue but of foreign language as well. A major responsibility of teachers at all grade levels is to teach the language and communication skills needed for academic success, career and social mobility. *Acta Medica Medianae 2007;46(1):5-10.*

Key words: literacy, foreign language, teaching, communication competence

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Introduction

Language and communication are at the heart of the human experience. Reading and writing are the most powerful modes of formal learning and they are fundamental to intellectual inquiry and creativity in all disciplines. Traditiona-

lly, academic literacy has tended to be conceived narrowly in terms of normative linguistic and cognitive skills, with its social and cultural dimensions largely ignored. From this point of view, becoming literate is not so much a matter of achieving a particular criterion level of reading or writing performance as it is a matter of engaging in an ever-developing process of using reading and writing as tools for thinking and learning in order to expand one's understanding of oneself and the world. There is often a reciprocal relationship cited between social competence and language skill. In fact, students' environment plays an important role in the development of language by providing opportunities for establishing and practicing language skills, role modeling, providing natural consequences, and offering feedback (1).

This expanded view of literacy is of key importance in addressing the widespread problem of curricular disjunction in foreign language teaching. Traditionally, introductory and intermediate level courses have tended to emphasize basic interpersonal communication while advanced courses have tended to maintain an emphasis on interpretive skills and formal exposition. This discrepancy in goals has often led to differences in the types of language to which learners are exposed, differences in the cognitive demands of assigned work, and differences in classroom culture - all of which contribute to poor curricular articulation as well as limitations in students' literacy in the foreign language as well as in socio-economic adaptation, relations between genders and social competence (2).

What does it mean to be literate in our increasingly complex technological and multicultural society? What counts as literacy in one cultural setting versus another? What kinds of literacy are needed to be 'communicatively competent' in another language? How can we best foster the development of these abilities in our students? What is the relationship between literacy in a native language and literacy in another language? How does one come to learn to 'read' another culture when one is predisposed to see the world from the perspective of one's own culture? (3).

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, communication with the opposite sex, etc (4).

Aims

The basic aim of this study was to determine the importance of foreign language learning for students' socio-economic adaptation. The study investigated the relationship between students' foreign language literacy and their achievements in medical studies.

Methodology

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

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

analysis). Students' socio-economic adaptation was evaluated through achievements at the faculty and social activity and the satisfaction with achieved results.

Language literacy was evaluated through students' ability for oral and written communication in the mother tongue and through the level of foreign language knowledge (four skills - reading, writing, speaking and listening). The students themselves graded the skills from 1-5. Being a part of language literacy, the ability of using modern technological achievements was evaluated as well (computer work and internet correspondence, SMS correspondence).

Results

The knowledge of the mother tongue was evaluated through writing and listening skills and frequency of reading books and was graded from 1-5. The results are presented in Table 1.

Table 1. Knowledge of the mother tongue

Department	Writing skill	Listening skill	Reading books
Medicine	4.66±0.6	4.68±0.5	2.93±1
Dentistry	4.64±0.5	4.68±0.5	3.05±0.9
Pharmacy	4.74±0.5	4.8±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. others

Average value of writing skill for all departments was 4.64±0.6, whereby the analysis shows significantly lower average value at the Department of Nursing (p<0.01). No significant difference was found in writing skill among other departments. Average value of speaking skill was 4.62±0.6 and was significantly lower among students at the Department of Nursing (p<0.01), whereas it was no significantly different among students at other departments. Reading books was evaluated in relation to the number of books read in a particular period of time. Average value was 3±1 and implied that a great majority of students read one book monthly. Variations among the frequency of reading are minimal and are of no statistic significance.

The percentage of students using modern means of communication such as letter sending, Internet correspondence, and SMS correspondence is presented in Table 2.

The analysis of variance shows no significant percentage difference in using post-correspondence among students of different departments ($H_i=0.45$; p=NS).

The percentage of Internet users was significantly different among departments ($H_i=9.87$; p=0.02), whereby Internet use was

largely present among students of dentistry in contrast to the Department of Nursing. SMS communication shows great variations among different departments ($H_i = 11.57$; $p = 0.009$), that is, it is the most frequent at the Department of Dentistry and the least frequent at the Department of Pharmacy.

Table 2. Percentage of students using modern means of communication

	Post-correspondence	Internet correspondence	SMS correspondence
Medicine	17.3	47.8	97.8
Dentistry	21.0	70.1*	100.0**
Pharmacy	20.0	54.2	88.5
Nursing	19.2	43.2	92.3
Total	18.3	53.2	96.7

* $p < 0.05$ vs. other; ** $p < 0.01$ vs. other

Students' satisfaction with their social and economic status is presented in Table 3.

Table 3. Percentage of students satisfied with social and economic status

	Social status (%)	Economic status (%)
Medicine	84.2	61.7**
Dentistry	75.4	52.6
Pharmacy	82.8	54.2
Nursing	53.8**	23.0**
Total	79.0	55.0

* $p < 0.05$ vs. other; ** $p < 0.01$ vs. other

The percentage of students satisfied with their social status is the highest among students of medicine and pharmacy and the lowest among nurses, which represents a statistically significant finding ($H_i = 13.99$; $p = 0.003$). The percentage of students satisfied with their economic status is the highest among students of medicine, slightly lower among students of dentistry and pharmacy, and the lowest among nurses ($H_i = 14.17$; $p = 0.003$).

Satisfaction with achieved results at the Faculty is approximately the same for all departments (2.93 ± 0.87). The average grade of achievements at the Faculty is the highest (3.5 ± 1.11) in the group of nurses, slightly lower among students of pharmacy (2.97 ± 0.65), and the lowest among students of medicine and dentistry (2.88 ± 0.82 and 2.85 ± 0.94). These results were confirmed by T test ($p < 0.05$), except for statistically non-significant difference among students of medicine and dentistry.

Average value of students' foreign language skills is presented in Table 4.

Writing skill is differently evaluated among departments. The highest average value was obtained among students of medicine and pharmacy; it was slightly lower among students of dentistry, while it was the lowest among nurses. T - test confirmed significance of these differences. Speaking skill grade was the highest at the Department of Medicine, significantly lower at the Department of Dentistry and Pharmacy, and the lowest at the Department of Nursing. The same results were obtained for reading skill as well. A very high average value for reading skill was obtained at the Department of Medicine and Pharmacy; it was significantly lower at the Department of Dentistry, while it was the lowest at the Department of Nursing. Statistically significant, listening skill grade was the highest among students of medicine, slightly lower among students of dentistry and pharmacy and the lowest among nurses.

Table 4. Foreign language skills

	Writing	Speaking	Reading	Listening
Medicine	3.29 \pm 1	3.44 \pm 1.	4.07 \pm 0.9	4.09 \pm 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 \pm 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 \pm 1.09	3.27 \pm 1.1	3.84 \pm 1.0	3.85 \pm 1.1

** $p < 0.01$ vs. medicine; [#] $p < 0.01$ vs. dentistry; [&] $p < 0.01$ vs. pharmacy

Discussion

Developing medical practitioner knowledge, values and skills needs students' good literacy and good language ability. To understand the wide range of human and societal strengths and dilemmas and apply the skills that work best in particular situation, all medical workers must acquire a broad knowledge base including content in: (a) theory; (b) research; (c) diverse fields of practice such as mental health, substance abuse, policy development, work with families and children, forensic and social work; and (d) the core medical work curriculum content areas (5).

This process includes the four basic applications of the mother tongue: writing, reading, speaking and listening. These embody, in sum, the verbal arts of human communication. Each language skill, although dealt with separately for the purposes of drill and exercise, eventually is fused into the usage patterns of conventional human communication (6).

All the four basic language skills referred to are hereby expressed as verbal ability that is the totality of the teaching and learning for medical sciences (7).

The obtained results show that writing and speaking skill is highly developed at all departments, except for the Department of Nursing where it is significantly lower.

This implies that there exists a good social competence acquired by satisfactory knowledge of the mother tongue, particularly by verbal communication skill. The number of books read is slightly lower among all students, which points to an unsatisfactory level of intellectual needs and further improvement of literacy ability.

Technological advancement and development of modern means of communication set new tasks that have to be fulfilled in order for a successful communication to be achieved. This primarily involves the use of Internet and mobile phone technologies. In this light students' ability to use modern communication technologies was evaluated. In addition, one must bear in mind the concept of communicative competence (8), based on one's knowledge of the rules of language structure and language use within a given culture. This concept can be accomplished only if an individual is capable enough to communicate with others successfully by using modern means of communication.

Therefore, the fact that a great majority of students use SMS technology for communication is encouraging, whereby, frequency of such a way of communication is the lowest among students of pharmacy. In contrast to the Department of Dentistry, the use of more advanced Internet computer technologies is not so much developed at other three departments. In fact, students of dentistry show greater tendency of using modern communication technologies when compared to the students of other departments.

Sociolinguists examine social and cultural influences on language behaviour. Among the most important concepts to emerge are those

relating to using of modern communication technology and language standards (8). The general conclusion is that literacy is nowadays everything except simply reading and writing ability.

The obtained results indicate that a great majority of students are satisfied with their social status. As far as satisfaction with economic status is concerned, more than fifty percent of students report that they are satisfied with their economic status. However, in comparison to other students, nurses are to a less extent satisfied with their social and economic status. This can be partly explained by the fact that in this group the level of verbal and written communication is significantly lower as well. These data correlate with the findings suggesting that social competence refers to social, emotional, and cognitive skills and behaviors that students need for a successful social adaptation. Despite this simple definition, social competence is an elusive concept, because the skills and behaviors required for healthy social development vary with the age and professional orientation and with the demands of particular situations. Conversely, the same behaviours (e.g., aggression, shyness) have different implications for social adaptation depending on the social context.

Studies including Micca (10) and Yisa (11) have reported on the perennial poor performances of students in the junior secondary School Certificate examinations in Nigeria. The study also revealed that the relatively poor performances of students correspond with relatively poor performances in the English Language. In the initial descriptive statistical analysis of the students' performances in the two subjects, it was found that the students' average grade points for the three years ranged from 2.21 to 2.38 while those for the English Language ranged from 2.29 to 2.44.

In many ways, literacy and communication competence serve as basic grounds for interpersonal relations, providing students with opportunities to learn about different aspects of professional, social and emotional life. These skills are associated with effective interpersonal relations in adult life, including relations with co-workers and with romantic partners. According to Okam, the language competence of students is crucial to fostering comprehension and interpretation (9). Unless students have the necessary linguistic competence, they are likely to find it difficult to understand and interpret the foregoing interrelationships between man and his environments.

Satisfaction with achieved results at the faculty is low at all departments, whereby it is the lowest at the Department of Medicine and the Department of Dentistry.

Writing skill varied among different departments. The highest average grade was obtained at the Department of Medicine and the Department of Pharmacy. It was slightly lower at the Department of Dentistry, while it was the lowest at the Department of Nursing. The significance of

these differences was confirmed by T-test. Speaking skill was the highest at the Department of Medicine, lower at the Department of Dentistry and the Department of Pharmacy and the lowest at the Department of Nursing, which represents a statistically significant finding. A very high grade for reading skill was obtained at the Department of Medicine and Pharmacy; it was significantly lower at the Department of Dentistry and the lowest at the Department of Nursing. A very high average value for reading skill was obtained among students of medicine and pharmacy; it was significantly lower at the Department of Dentistry and the lowest among nurses. The finding that listening skill was the highest among students of medicine is statistically significant, lower among students of dentistry and pharmacy and the lowest among nurses.

Conclusion

Foreign language knowledge has always provided a good basis for a successful exchange of ideas, facts, and information among different nations and cultures. Contemporary society and science with rapid flow of information and cultural diversity strongly impose the need for foreign language learning. This study set out to investigate all four aspects of foreign language learning. There is very obvious evidence that students of medicine show best results in foreign language learning. The level of knowledge among students of dentistry and pharmacy is slightly lower and it is the lowest among nurses.

The results of the study show that students of College of Nursing are less socially and economically adapted and satisfied with their social and economic status. It can be concluded that social and communication competence requires not only a good knowledge of the mother tongue but of foreign language as well. Moreover, emphasis should be put on teachers' improvement of their communication skills in the instructional process as they also have influence on students' verbal

ability. Care should also be taken to select texts that are written in language within the students' level of understanding. Many students come from cultures that use different, though valid communication and language systems from what is considered "normal" in the academic environment. In that way, a major responsibility of teachers at all grade levels is to teach the language and communication skills needed for academic success, career and social mobility.

QUESTIONNAIRE

1. Knowledge of the mother tongue (1-bad, 2-satisfactory, 3-good, 4-very good, 5-excellent)
2. Reading books (1-not at all, 2-once a year, 3-once a month, 4-once a week, 5-every day)
3. Satisfaction with style and skill of expression in everyday communication (1-not satisfied, 2-poorly satisfied, 3-partially satisfied, 4-very satisfied, 5-completely satisfied)
4. Satisfaction with style and skill of writing in everyday life (1-not satisfied, 2-poorly satisfied, 3-partially satisfied, 4-very satisfied, 5-completely satisfied)
5. Use of internet (1-yes, 2-no)
6. Use of SMS (1-yes, 2-no)
7. Post correspondence (1-yes, 2-no)
8. Participation in students' organizations (1-yes, 2-no)
9. Participation in social organization (1-yes, 2-no)
10. Satisfaction with social status (1-yes, 2-no)
11. Satisfaction with economic status (1-yes, 2-no)
12. Plans about going abroad after graduation (1-yes, 2-no)
13. Contact with opposite sex (1-excellent, 2-very good, 3-good, 4-satisfactory, 5-bad)
14. Knowledge of foreign languages
15. Duration of foreign language learning
16. Grading of foreign language knowledge –writing, speaking, reading and listening skill (1-bad, 2-satisfactory, 3-good, 4-very good, 5-excellent)
17. Staying abroad
18. Number of stayings abroad
19. Computer work (1-bad, 2-satisfactory, 3-good, 4-very good, 5-excellent)
20. Satisfaction with achieved results at faculty (1-not satisfied, 2-poorly satisfied, 3-partially satisfied, 4-very satisfied, 5-completely satisfied)

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ZNAČAJ POZNAVANJA STRANIH JEZIKA ZA SOCIO-EKONOMSKU ADAPTACIJU STUDENTSKE POPULACIJE - KARAKTERISTIKE JEZIČKE PISMENOSTI KOD RAZLIČITIH STUDIJSKIH GRUPA NA MEDICINSKOM FAKULTETU

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Razvoj ljudskog društva i čoveka kao jedinke počiva na dobroj komunikaciji i korišćenju jezičkih sposobnosti. Čitanje i pisanje predstavljaju najvažniji preduslov za uspešno učenje i intelektualnu kreativnost na svim poljima. Biti pismen ne predstavlja samo veštinu čitanja i pisanja, već osnovu za bolje razumevanje sebe, socijalnog okruženja i kulturološkog miljea. Imajući u vidu značaj jezičke pismenosti za socio-ekonomsku adaptaciju studenata, osnovni cilj ovog istraživanja bio je da se odredi značaj poznavanja stranih jezika za socio-ekonomsku adaptaciju studentske populacije.

Ispitivanje predstavlja prospektivnu studiju sprovedenu na populaciji studenata Medicinskog fakulteta u Nišu tokom juna 2006. godine. Ispitivanjem su obuhvaćeni studenti svih studijskih grupa (medicina, stomatologija, farmacija, zdravstvena nega). Ispitivanje je sprovedeno putem anonimne ankete kojom je anketirano 312 studenata. Upitnikom je analizirana socio-ekonomska adaptacija studenata, pismenost na maternjem jeziku i stepen poznavanja stranog jezika (pisanje, čitanje, slušanje, govor). U sklopu jezičke pismenosti sagledavana je i sposobnost korišćenja savremenih tehničkih dostignuća u oblasti komunikacije (internet i SMS dopisivanje mobilnom telefonijom).

Veština pisanja i govornog izražavanja je ocenjena značajno manjom ocenom od strane studenata zdravstvene nege. Slanje poštanskih pisama je relativno redak vid komunikacije i približno podjednako zastupljen kod svih grupa studenata. Studenti stomatologije znatno češće koriste savremena sredstva komunikacije u odnosu na ostale grupe. Procenat studenata koji su zadovoljni svojim socijalnim statusom je najveći u grupi medicinaru i farmaceuta a najmanji u grupi studenata zdravstvene nege. Najveći procenat studenata medicine je zadovoljan svojim materijalnim položajem u društvu, nešto manji procenat zadovoljnih je u grupi studenata farmacije i stomatologije a najmanji kod studenata zdravstvene nege. Zadovoljstvo postignutim uspehom najveće je u grupi studenata zdravstvene nege, niže kod farmaceuta a najniže kod studenata medicine i stomatologije. Poznavanje stranih jezika je najbolje ocenjeno na medicinskom, nešto slabije na stomatološkom i farmaceutskom, a najslabije na odseku zdravstvene nege.

Socio-ekonomska adaptacija i uspešna komunikacija iziskuju dobro poznavanje ne samo maternjeg već i stranog jezika. Velika uloga nastavnika i saradnika ogleda se u potrebi stalnog usavršavanja jezičke pismenosti i unapređenja komunikacijskih veština studenata kako bi bili sposobni za postizanje boljeg akademskog uspeha, uspešne karijere i društvene adaptacije. *Acta Medica Medianae 2007;46(1):5-10.*

Ključne reči: *pismenost, poznavanje stranih jezika, nastava, sposobnost komunikacije*