
MEDICAL STUDENTS AND ENGLISH FOR MEDICAL PURPOSES

¹Saba Hussain Quadeer and ²Dr. Mandvi Singh¹Research Scholar and ²Associate Professor, Banasthali Vidyapith, Rajasthan, India**ABSTRACT**

The main objective of the research is to investigate attitudes of medical students of India towards English language communication skills as well as the effect of socio-demographic factors on attitudes toward acquiring these skills. In several non-English-speaking nations, disagreements have erupted over the medium of instruction in medical schools. Due to the predominance of English in medical science, a new ESP branch (English for Specific Purposes) known as EMP is being developed (English for Medical Purposes). Although the importance of doctor-patient communication is now recognized in India, the problem of language barriers in healthcare has gained very little attention in the country. As a result of the adoption of English as an international language of science and medicine throughout the past few years, a significant amount of medical research and literature has been created in English. The ability to communicate effectively (CS) is essential for physicians. Patients, after all, place a high value on consultations because they are the most important component of their treatment. CS is an essential and teachable ability; yet, in contrast to their western counterparts, it is not extensively taught in Indian medical colleges.

It is felt that future generations of doctors will be faced with professional demands that can only be handled by taking an approach to the acquisition of competencies that is multidisciplinary in their field. The mobility of the workforce and the continual advancement of information and communication technology are just a few of the reasons why communication skills in foreign languages, particularly English as a global lingua franca in business and science, must be included in doctors' competencies. A survey of students and teachers about the importance of communication skills in English was conducted to determine the attitudes of future professional doctors towards the importance of communication skills in English. The descriptive statistics approaches have been used to describe the outcomes of the study.

Keywords: Communication skills; English for specific purposes; English for medical purposes; language needs; needs analysis.

INTRODUCTION

In India, the field of biomedicine is virtually entirely confined to English-speaking countries. A legacy of British colonial authority in India has left this situation in its current state. To be admitted to medical school, the Medical Council of India assumes that applicants have knowledge of the English language. For this reason, reading medical textbooks that are published in English is mandatory and students are expected to take their tests and examination in English. Other health-care professions, such as nurses and paramedical workers, face a similar scenario, but within these fields, certain training materials and a few basic textbooks are accessible in other Indian languages as well as English. Patients who do not speak English frequently receive simplistic messages or primitive translations that are completely void of the subtlety that is necessary for them to make a truly informed decision about their health. This is because most Indian languages do not have an adequate vocabulary for technical terms; also, because health workers are not completely fluent in languages that are not their mother tongue.

The fact that English is the primary language of communication across the globe is now unquestionable. According to Albakrawi & Almutairi (2003), English is considered a medium that allows students to make advancements in other disciplines [1]. Hence, it has been observed that English is very important in medical studies since medical students are required to study medical textbooks and professional publications that are almost exclusively published in the English language. As a result, medical students must learn English to understand their subject matter in a better way and to prepare themselves for their future professions. Most medical students at government universities still have difficulties using English for academic purposes. Most of them, however, lack language proficiency. This means that more English courses should be offered to this group of students. The English classes should include more specialized and relevant materials to their academic requirements, as well as more time for discussion. An effort was made in the current research to analyze the demands of medical students.

According to the findings of this research, instructors may design in-class activities in which students can use their newly acquired skills and knowledge as tools to fulfill their real-world requirements in relevant ways. Also, the aim was to throw more light on students' needs from their perspectives, as well as to assist teachers in

recognizing and understanding possible gaps in learning expectations between themselves and the students in their classes.

English for Specific Purposes and English for Medical Purposes

A mastery of the English language, according to Kurfurst (2004), is required for medical practitioners since most of the material included in medical textbooks, articles, papers, and journals is written in the English language. Additionally, it is essential for their medical studies and future medical jobs as well hence English for medical purposes (EMP) becomes mandatory for medical students. The medical professional, according to Kang (2004), must be fluent in the English language since all medical information for medical professionals is accessible in the English language.

English for Specific Purposes (ESP) courses are language programs intended for individuals who want to learn English for a specific reason and have an identifiable need that can be identified and satisfied. (Dudley-Evans & St Johns, 1998). Smoak (2003) said, "ESP is English instruction based on the actual and immediate needs of learners. ESP is needs- based and task-oriented" (p. 27). Frinculescu (2009) puts it, "English has gained the status of Lingua Franca" because of its wider significance and use across the globe. Many medical journals and research are published in English. Along with the existence of conventional communication systems in English, there is also the presence of the World Wide Web and computer networking systems that function in the English language. Specialists believe that a significant presence of EMP may be detected throughout a broad range of countries globally during the last several years. During the last decade, English has climbed to the top of the list of medical research languages, gaining the title of "premier research language" (Swales, 2004). Medical English is highly based on technical and contextual aspects. Doctors communicate in jargon and everyday language as well as technical and academic terminology at the workplace. Medical English is a more specialized form of English, and as such, it cannot be taught using the same methods as basic English language instruction. The goal of EMP learning is not to learn basic grammar and structure, but rather to learn how to utilize language in social and professional situations (Niazi, 2012, p.51). EMP courses, similar to ESP courses, should be developed following the requirements and objectives of the learners. It is built on teaching strategies such as content-based learning and problem-based learning to achieve its goals. Medical terminology is also covered in

depth in the Medical English course. It has also been discovered that traditional techniques such as the grammar- translation method and the vocabulary teaching method still exist (Maher, 1986) but do not provide satisfactory results. It is the needs analysis, according to Robinson (1991) which is the most essential and critical element in ESP. Different assessment methods are used to determine the educational demands of learners as well as their learning requirements. When determining the communication requirements of learners in certain areas, several assessment methods are used (Brown, 1995). As a result of the information gathered during the demand analysis process, new courses are developed, or current courses are changed as appropriate. Keeping these things in mind in the present paper following research questions and research objectives have been addressed:

RESEARCH QUESTIONS

- 1) To what extent are English communication skills needed by medical students to be successful in their academic and professional lives?
- 2) What language skills (reading, writing, listening, and speaking) are valued by students and professors at medical colleges?

RESEARCH OBJECTIVES

- 1) To identify the English communication requirements of physicians in their academic and professional environments.
- 2) To determine the most important English language skills for doctors throughout their professional careers.

METHODOLOGY

Setting and Participants

The researcher has taken two types of participants: medical students and academicians. The opinions of academicians are very important since they may be more informed than other individuals about students' English language needs than they are. Students themselves are excellent sources of information about their own needs since they are the ones who have the most need for English competence. In this study, questionnaires were administered to students. The total number of students was 40 and the number of teachers was 15.

Instruments

It was decided that questionnaires would be used as data collection tools. When it comes to gathering information from large groups of people, questionnaires are the most cost-and time-effective method available (Drnyei, 2003). In addition, questionnaires allow for comparisons of views across different groups. There were four different kinds of questions in the questionnaires: questions about demographic information, Likert-scale questions, ranking questions, and multiple-answer questions.

Data Analysis

A total of two groups of people from the medical discourse community were interviewed: medical students and professors teaching at medical schools. When collecting data from medical students, the first questionnaire was utilized, and when collecting data from physicians, the second questionnaire was used. Different statistics, including mean and standard deviations, were utilized for different question types in the questionnaires.

An Assessment of the Responses Received From the Participants

Descriptive statistics were employed to identify participants' attitudes regarding language abilities and requirements in their academic and professional lives.

The questionnaire had a Cronbach score of 0.4, which can be interpreted as the value was low because of the smaller number of participants.

The Findings of the Research Questions

RQ1: To what extent are English communication skills needed by medical students to be successful in their academic and professional lives? Table 1 displays the frequency percentage.

Table 1: Importance of English

How often do you think healthcare students need English communication?			
equency			
Always	Often	Rarely	Never
2.50%	5.00%	50%	00%

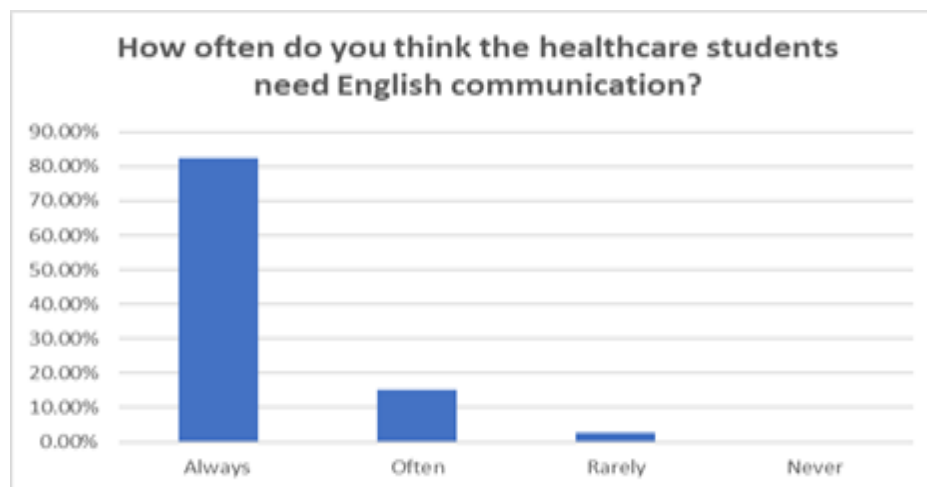


Figure 1: Importance of English

According to the survey, 82.50% ($X = 1.2$) believed that healthcare students need English communication skills. (Kindly refer to table 2)

Table 2: Descriptive Statistics of Importance of English

How often do you think the healthcare students need English communication?

Mean	1.2
Standard Error	0.07338
Median	1
Mode	1
Standard Deviation	0.464095
Sample Variance	0.215385
Kurtosis	5.141014
Skewness	2.33294

Range	2
Minimum	1
Maximum	3
Sum	48
Count	40

This part also dealt with the need for English communication skills among medical students.

Table 3: Descriptive Statistics of attitudes towards language needs of medical students: students' perspective

	Ability to write laboratory reports	Ability to write term papers / research papers	Ability to communicate with the local patients/ staff	Ability to take notes during lectures	Ability to raise and answer questions in the classroom	Ability to speak to lecturers after the class	Ability to carry on discussions in the classroom	Ability to raise and answer questions in the classroom	Ability to understand lecturers in order to take notes	Ability to follow and understand questions raised by other colleagues and follow class discussion	Ability to understand lectures in order to take notes	Ability to present oral reports	Ability to talk to foreign patients	Ability to present oral reports	
Mean	1.225	1.425	1.900	1.250	1.275	1.325	1.375	1.300	1.350	1.375	1.300	1.450	1.350	1.275	1.475
Standard Error	0.091	0.113	0.151	0.093	0.119	0.097	0.122	0.109	0.122	0.117	0.109	0.124	0.122	0.095	0.134
Median	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Mode	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Deviation	0.577	0.712	0.955	0.588	0.751	0.616	0.774	0.687	0.770	0.740	0.687	0.783	0.770	0.599	0.847
Sample Variance	0.333	0.507	0.913	0.346	0.563	0.379	0.599	0.472	0.592	0.548	0.472	0.613	0.592	0.358	0.717
Kurtosis	5.117	0.529	- 0.900	4.126	8.074	2.048	3.132	6.336	3.573	3.715	6.336	2.103	5.926	3.306	1.107
Skewness	2.502	1.399	0.579	2.286	2.938	1.762	2.012	2.529	2.133	2.052	2.529	1.693	2.489	2.094	1.548
Range	2	2	3	2	3	2	3	3	3	3	3	3	3	2	3
Minimum	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maximum	3	3	4	3	4	3	4	4	4	4	4	4	4	3	4
Sum	49	57	76	50	51	53	55	52	54	55	52	58	54	51	59
Count	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40

According to the medical students, “ability to write laboratory reports” ($x=1.225$) and “ability to raise and answer in the classroom” (1.275) were the two concerns where English communication was needed most (as indicated in Table3).

Table 4: Descriptive Statistics attitudes towards language needs of medical students: teachers’ perspective

	Ability to write laboratory reports	Ability to write term projects / research papers	Ability to communicate with the local patients/ staff	Ability to take notes during lectures	Ability to raise and answer questions in the classroom	Ability to ask questions to the lecturers after the class	Ability to carry on discussions in the classroom	Ability to raise and answer questions in the classroom	Ability to follow and understand lectures in order to take notes	Ability to follow and understand class lectures	Ability to understand questions raised by other colleagues and follow class discussion	Ability to understand lectures in order to take notes	Ability to present oral reports	Ability to talk to foreign patients
Mean	1.533333	1.133333	2	1.4	1.533333	1.733333	1.466667	1.6	1.466667	1.133333	1.733333	1.266667	1.666667	1.8
Standard Error	0.215289	0.090851	0.29277	0.272554	0.215289	0.228174	0.191899	0.213809	0.191899	0.090851	0.153271	0.181703	0.30342	0.311677
Median	1	1	1	1	1	1	1	1	1	1	2	1	1	1
Mode	1	1	1	1	1	1	1	1	1	1	2	1	1	1
Standard Deviation	0.833809	0.351866	1.133893	1.055597	0.833809	0.883715	0.743223	0.828079	0.743223	0.351866	0.593617	0.703732	1.175139	1.207122
Sample Variance	0.695238	0.12381	1.285714	1.114286	0.695238	0.780952	0.552381	0.685714	0.552381	0.12381	0.352381	0.495238	1.380952	1.457143
Kurtosis	-0.40771	4.349112	-1.77493	4.349112	-0.40771	-1.4943	0.470594	-0.78526	0.470594	4.349112	-0.1711	4.349112	0.136376	0.059001
Skewness	1.158874	2.404763	0.339199	2.404763	1.158874	0.600824	1.334784	0.940546	1.334784	2.404763	0.091059	2.404763	1.365604	1.281984
Range	2	1	3	3	2	2	2	2	2	1	2	2	3	3
Minimum	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maximum	3	2	4	4	3	3	3	3	3	2	3	3	4	4
Sum	23	17	30	21	23	26	22	24	22	17	26	19	25	27
Count	15	15	15	15	15	15	15	15	15	15	15	15	15	15

However, teachers strongly agreed that the ability to write term projects/research papers ($X=1.13$), the ability to take notes during lectures ($X=1.4$), the ability to follow and understand class lectures ($X=1.13$), and the ability to understand lectures to take notes ($X=1.26$) were the areas students strongly needed English communication skills the most. (Refer to table 4).

RQ2: What language skills (reading, writing, listening, and speaking) are prioritized by medical students?

Table 5: Descriptive Statistics: language skills need- students’ perspective

Listening skills		Speaking skills		Writing skills		Reading skills	
N	40	40		40		40	
Mean	1.175	1.225		1.4		1.225	
Standard Error	0.070597	0.07585		0.1		0.066867	
Median	1	1		1		1	
Mode	1	1		1		1	
Standard Deviation	0.446496	0.479717		0.632456		0.422902	
Sample Variance	0.199359	0.230128		0.4		0.178846	
Kurtosis	6.869497	3.832999		0.801236		-0.13521	
Skewness	2.639153	2.074784		1.357091		1.368987	
Range	2	2		2		1	
Minimum	1	1		1		1	
Maximum	3	3		3		2	
Sum	47	49		56		49	

In general, 85.00% of the students appreciated listening skills ($X=1.175$) higher than the other skills, followed by speaking skills at 80.00%. (As illustrated in Table 5 and figure 2.)

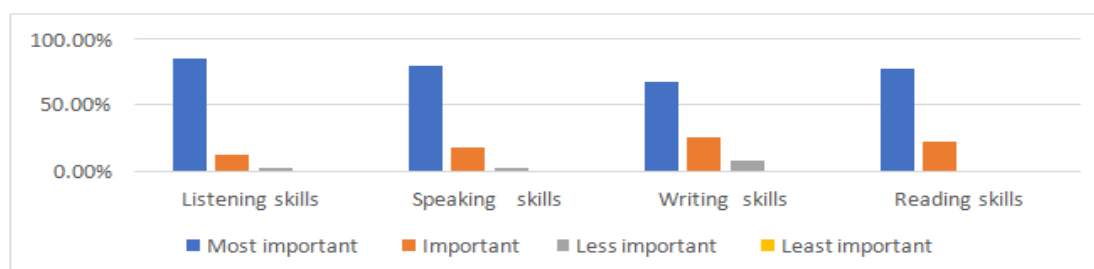


Figure 2: Students: Which of the following English language skills do you think are the most important for healthcare students?

It was observed that according to the teachers, listening skills ($X= 1,20$) were the most important skill required, followed by speaking skills (1.27), whereas reading ($X= 2.40$) was the least required skill for medical students, as illustrated in Table 6 and figure 3.

Table 6: Descriptive Statistics: language skills need- Teachers'' perspective

	Writing	Speaking	Reading	Listening
Mean	1.60	1.27	2.40	1.20
Standard Error	0.13	0.12	0.25	0.11
Median	2.00	1.00	2.00	1.00
Mode	2.00	1.00	2.00	1.00
Standard Deviation	0.51	0.46	0.99	0.41
Sample Variance	0.26	0.21	0.97	0.17
Kurtosis	-2.09	-0.73	-0.81	0.90
Skewness	-0.46	1.18	0.06	1.67
Range	1	1	3	1
Minimum	1	1	1	1
Maximum	2	2	4	2
Sum	24	19	36	18
Count	15	15	15	15

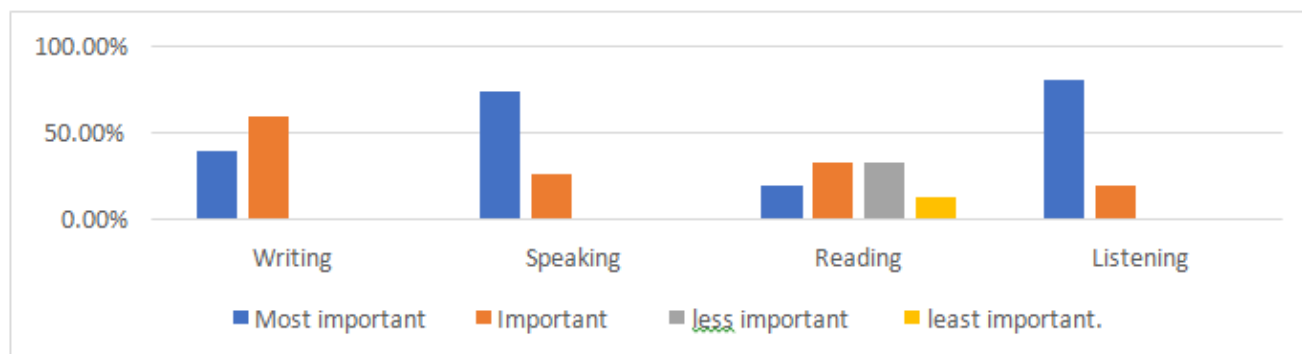


Figure 3: Teachers: Which of the following English language skills do you think are the most important for healthcare students?

SUMMARY OF THE FINDINGS

Table 7 illustrates the comparative study of attitude towards language needs of students and teachers. Discussion of the First Research Question

Table 7: Descriptive Statistics: Comparative study of attitude towards language needs (teachers and students)

Sub question		Ability to write laboratory reports	Ability to write term papers / research papers	Ability to communicate with the local patients/ staff	Ability to take notes during lectures	Ability to raise and answer questions in the classroom	Ability to speak to lecturers after the class	Ability to carry on discussions in the classroom	Ability to raise and answer questions in the classroom	Ability to understand lectures in order to take notes	Ability to follow and understand class lectures	Ability to understand questions raised by other colleagues and follow class discussion	Ability to understand lectures in order to take notes	Ability to present oral reports	Ability to talk to foreign patients	Ability to present oral reports
Strongly agree	Med Stud	85.00%	70.00%	45.00%	82.50%	85.00%	75.00%	77.50%	80.00%	80.00%	75.00%	80.00%	70.00%	77.50%	80.00%	72.50%
	Teachers	66.67%	86.67%	53.33%	86.67%	66.67%	53.33%	66.67%	60.00%	66.67%	86.67%	33.33%	86.67%	73.33%	60.00%	
not sure	Med Stud	7.50%	17.50%	25.00%	10.00%	7.50%	17.50%	10.00%	12.50%	7.50%	15.00%	12.50%	17.50%	15.00%	12.50%	10.00%
	Teachers	13.33%	13.33%	0.00%	0.00%	13.33%	20.00%	20.00%	20.00%	20.00%	13.33%	60.00%	0.00%	0.00%	20.00%	
disagree	Med Stud	7.50%	12.50%	25.00%	7.50%	2.50%	7.50%	10.00%	5.00%	10.00%	7.50%	5.00%	10.00%	2.50%	7.50%	15.00%
	Teachers	20.00%	0.00%	40.00%	0.00%	20.00%	26.67%	13.33%	20.00%	13.33%	0.00%	6.67%	13.33%	13.33%	0.00%	
strongly disagree	Med Stud	0.00%	0.00%	5.00%	0.00%	5.00%	0.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	5.00%	0.00%	2.50%
	Teachers	0.00%	0.00%	6.67%	13.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.33%	20.00%	

According to the English instructors, "ability to write term papers/research papers", "ability to take notes during lectures", "ability to follow and understand class lectures", and "ability to understand lectures to take notes" were significantly required English communication skills amid medical students. The explanation might be the fact that most medical terminology and study materials are in the English language; therefore, they need to use English words in their works. On the contrary, students evaluated "ability to write laboratory reports", "ability to raise an answer question in the classroom" as strongly required English communication skills.

(Refer to table 7 and figure 4.)

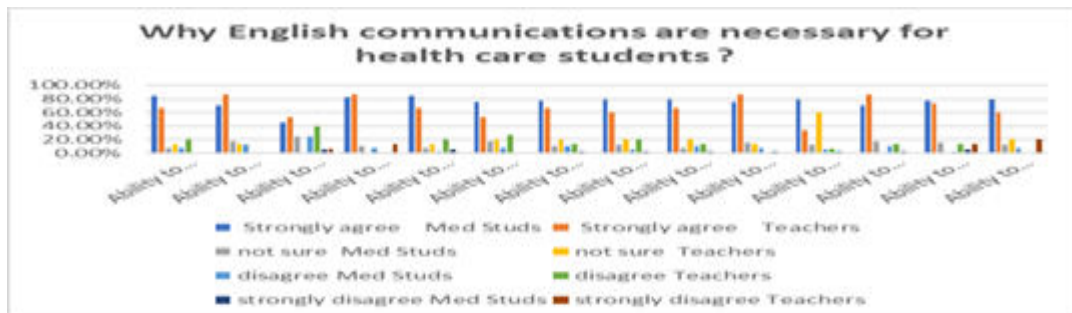


Figure 4: Comparative study of attitude towards language needs (teachers and students)

Need of English Skills (Reading, Writing, Listening, and Speaking)

As medical students need to obtain knowledge about current research and information about the medical sector, and they are generally present in English, teachers claim the highest significance for the role of listening skills for medical students.

Generally, medical students recognize the need for all the English skills essential for their academic and professional life. However, they strongly feel the need for listening skills (85.00%) and speaking skills (80.00%) more than reading and writing skills (77.50% and 67.00% respectively). To be on the same line, educators too, realized the necessity for listening skills and speaking skills more than reading skills and writing skills for their students. It was also noticed that

students considered writing skills as not a very significant skill required by them. However, instructors believed reading skills were of lesser significance than the other three skills for their students. (kindly refer to table 8 and figure 5.)

Table 8: Which of the following English language skills do you think are the most important for healthcare students?

	Listening skills		Speaking skills		Writing skills		Reading skills	
	Med Stds	Teachers	Med Stds	Teachers	Med Stds	Teachers	Med Stds	Teachers
Most important	85.00%	80.00%	80.00%	73.33%	67.50%	40.00%	77.50%	20.00%
Important	12.50%	20.00%	17.50%	26.67%	25.00%	60.00%	22.50%	33.33%
Less important	2.50%	0.00%	2.50%	0.00%	7.50%	0.00%	0.00%	33.33%
Least important	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.33%

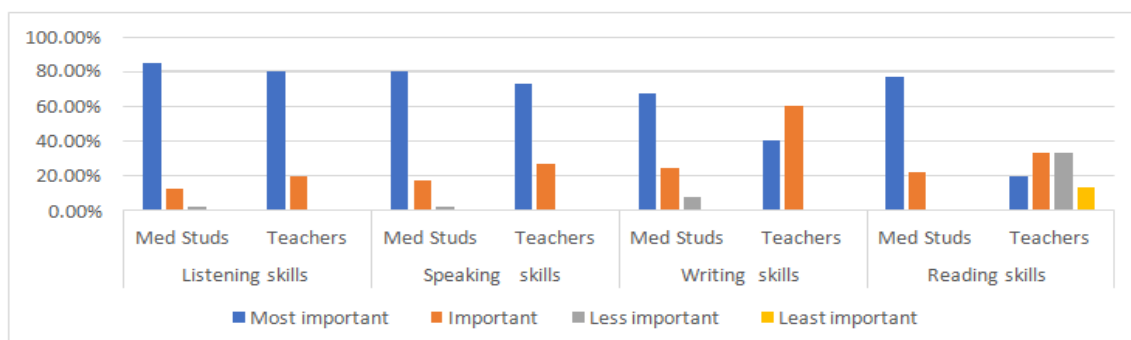


Figure 5: Which of the following English language skills do you think are the most important for healthcare students?

CONCLUSION AND RECOMMENDATIONS

As a part of the needs analysis process, the present study intends to find out the academic English language requirements of medical students. The outcomes of the study underlined the significance of the last item in the questionnaire, which was the requirement for EMP in healthcare investigations. To satisfy the academic-related and job-related language needs of students, more English language programs are advised to be offered to students of medicine, especially those who do not have formal English language learning at the upper secondary level. They appear to be conscious of the importance of English communication skills in their academic and professional life. Therefore, it is worth responding to the need for English language communication skills in the present curriculum as it does not fulfill the English expectations of medical students. (kindly refer to table 9 and figure 6)

Table 9: Do you think that English should be taught beyond the premedical / pre-healthcare curriculum.

Sub Question	Teachers	Med Studs
Yes, at least with the basic medical/ healthcare subjects (1 st year)	40.00%	45.00%
Yes, up to the last year	33.33%	25.00%
Yes, at least with the basic medical/ healthcare subjects (1st, 2nd& 3rd year)	26.67%	30.00%
No, the current situation is enough	0.00%	0.00%

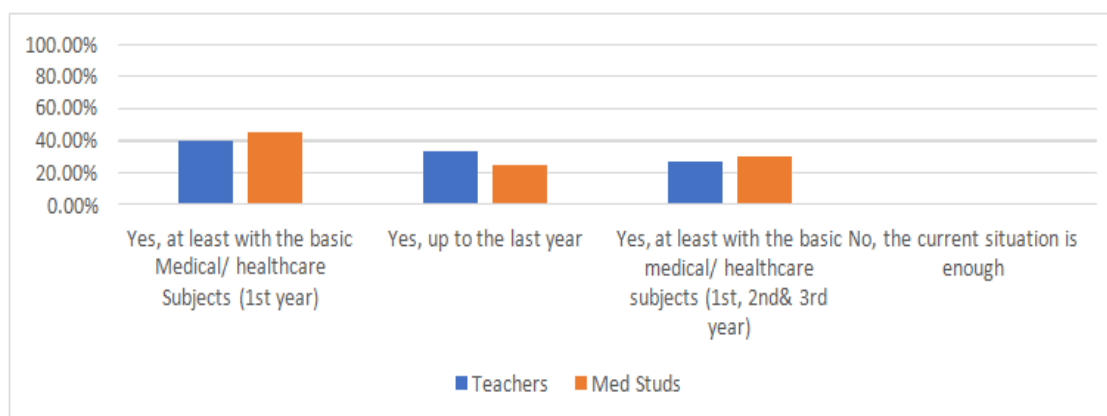


Figure 6: Do you think that English should be taught beyond the premedical / pre-healthcare curriculum.

The results show that educators and medical students require English communication skills for basic medical courses in the first year of medical college. Both general and medical English should start in the first year of medical college. Some students recognized the need for English communication skills in their last year too. The learners belong to diverse languages, geographical and cultural backgrounds, therefore the requirement of English education in medical institutions may play a key role in developing common understanding. EMP programs should be specifically developed as medical students should learn them readily. However, the students and professors strongly feel that the integrated system is still not enough to fulfill their occupational and academic needs.

A future thorough and detailed investigation should be done at a different level of medical education to implement the required changes. The course of EMP should be structured and split according to preclinical and clinical requirements. Furthermore, many disciplines of the medical profession including nursing, inpatient care, pharmacy, and healthcare communication might be covered. English language training programs and seminars should be established for continuing the professional growth of future doctors.

REFERENCES

1. Albakrawi, H. D. M., & Almutairi, F. M. (2013). The Effect of ESP Program on the Engineering Student's Proficiency at the University of Tabuk. *Journal of Education and Practice*, 4(3). 117-124.
2. Brown, J. D. (1995). *The elements of language curriculum: A systematic approach to program development*. Boston, Massachusetts: Heinle&Heinle Publishers.
3. Dudley-Evans, T. and St. John, M. (1998). *Developments in English for specific purposes: A multi-disciplinary approach*. Cambridge: Cambridge University Press.

-
4. Hutchinson, T., & Waters, A. (1987). *English for specific purposes: A learning-centered approach*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511733031>
 5. Kang, S. J. (2004). A Korean medical doctor's experiences in learning and use of English in the United States: Individual and environmental affective factors. Paper presented at the Sixteenth Annual Conference in Ethnography.
 6. Kurfurst, P. (2004). English as a lingua franca of medicine. The International Conference on English Is Not Enough: Language Learning in Europe. Olomouc, Czech Republic.
 7. Mackay, R. (1978). Identifying the nature of the learner's needs. In R. Mackay & A. J. Mountford (Eds.), *English for specific purposes: A case study approach* (p. 2137). London: Longman.
 8. Maher, J. (1886). The development of English as an international language of medicine. *Applied linguistics*, 7(2).
 9. Robinson, P. (1991). *ESP today: A practitioner's guide* (pp. 1-21). New York: Prentice Hall.
 10. Shirvan, S. (2008). Impact of learner- centered teaching and learning process on preadvanced first year medical students' performance, attitudes, and retention in medical English (Doctoral dissertation). Middle East Technical University. Retrieved from <http://etd.lib.metu.edu.tr/upload/12609388/index.pdf>
 11. Smoak, R. (2003). What is English for specific purposes? *English Teaching Forum Online*, (2), 22-27. Retrieved October 6, 2013, from http://americanenglish.state.gov/files/ae/resource_files/03-41-2-g.pdf
 12. Swales, J. (2004). *Research genres: Explorations and applications*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139524827>
-