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AN ANALYSIS OF THE ENGLISH LANGUAGE NEEDS OF MEDICAL STUDENTS AND GENERAL PRACTITIONERS: A CASE STUDY OF GUILAN UNIVERSITY OF MEDICAL SCIENCES

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ABSTRACT

This study aimed at finding out the English language needs of Medical students and General Practitioners in an EFL context. 110 female and male students from Guilan University of Medical Sciences, who had already taken General English and English for Medical purposes courses, 40 General Practitioners who graduated from Guilan University and they work in different hospitals in Rasht city currently, and among 3 EFL instructors and 12 Subject-matter instructors participated in this study. The findings of the study showed that both medical students and General Practitioners valued reading skill, higher than the other language skills followed by writing skill. However, speaking skill had the least significance for both groups. And also General practitioners reflected higher needs towards English language than medical students. According to the fact that actual needs of medicine students generally change across time and educational settings, the EMP instructor should try to find the real needs of the learners and assess the effectiveness of his/her course based on the investigation of changing needs of the students.

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Keywords: ESP, EMP (English for Medical Purposes), NA (Needs Analysis), EFL, GE (General English), Iran.

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Contribution/ Originality

The paper`s primary contribution is finding that both Medical students and General Practitioners valued reading skill, higher than the other language skills followed by writing skill. However, speaking skill had the least significance for both groups. And also General Practitioners reflected higher needs towards English language than Medical students.

1. INTRODUCTION

It is found that English plays a very vital role in medical studies because the medical students have to read medical textbooks and professional journals which are mostly written in English. Therefore, medical students need to use English for studying their subject matter and also for their careers in the future. Most medical students at Guilan University still have difficulties in using English for academic purposes although they obtained good grades from their English courses when compared to students from other faculties and although graduates from the medicine field of Guilan University have won lots of knowledge & practical issues. Most of them, however, are lacking in English

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language proficiency. This means that more English courses should be offered to this group of students aside from the current courses. Furthermore, the content of the English courses should be more specific and relevant to their academic needs. The present study was an attempt to carry out an analysis of the needs of Medical students taking English courses as well as that of graduated GPs. Therefore, the findings of this study could be of significant value for instructors and course designers in designing an ESP course for Medical students in Iran. The results of this study would help instructors create in-class activities in which the students can utilize learned skills and knowledge as tools to meet their real-life needs in meaningful ways. It also intended to shed more light on students` needs from their own perspectives and to help instructors understand the potential differences in learning expectations between themselves and their students.

The following overview provides a sampling of studies in needs analysis conducted in different parts of the world. This overview will first present studies conducted within the field of medical English and then present other studies in English for specific purposes. Mazdayasna and Tharirian (2008) investigated the foreign language learning needs of undergraduate medical sciences students studying in faculties of nursing and midwifery in Iran. A sum of 681 students as well as 168 subject-matter instructors and 6 EFL teachers participated in the study, which was designed on a qualitative-quantitative survey basis utilizing interviews and questionnaires. Extensive qualitative and statistical analysis of the data showed that most of the students perceived that they required to master the foreign language before they attended their specialized courses because they required to use Persian and English dissatisfaction with the number of students in each class, with the teaching methodology used, the method of evaluation, and the amount of foreign culture taught in the class and content of the textbook. Equally, the subject-matter teachers' responses showed total dissatisfaction with their students` language skills. It can be inferred that this course does not fully prepare the students to embark on their studies because it does not sufficiently consider their (1) learning needs, (2) present available in terms of staff, materials, equipment, finances and time constraint, (5) the skill of the instructors and the instructor`s knowledge of the specific area; Eggly *et al.* (1999) performed a study to investigated the relationship between English language proficiency and medical residency success in the United States. Twenty international internal medicine residents at Wayne State University in Michigan were first evaluated for English ability by the Test of English for International Communication. Then, a questionnaire was distributed among these students. In spite of the fact that participants scored high grades in the Test of English for International Communication, language skills were distinguished in the questionnaire as the primary weakness. The results demonstrate that medical knowledge was not connected to English ability. The study suggested a training course in English for medical purposes. Lombardo (1988) investigated 200 students of the School of Economics to evaluate students` needs and beliefs about learning English as a second language. The findings indicated that learners were motivated to learn English to prepare themselves for better job opportunities. The results showed that specialized terminology considered as the most problematic issue in reading. Participants reflected higher need for understanding oral reports and participating in meeting to succeed in their field. Regarding the importance of the four language skills, participants acknowledged listening skill more than the other skills followed by speaking. However for participants writing had least significance.

2. METHOD

This study aimed to investigate the English language needs of medical students and general practitioners. The subjects who participated in this research consisted of the Medical students in their third (60%) and fourth (40%) year of their studies, General Practitioners graduated from Guilan University and EFL and subject-matter instructors. The respondents who were randomly chosen from target population consisted of 110 female (59%) and male (41%) medical students from Guilan University of Medical Sciences, who had already taken General English and English for Medical purposes courses. 40 General Practitioners working on different hospitals in Rasht and also 3 EFL

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instructors and 12 subject matter instructors. To answer the research questions formulated in this study quantitative data were collected. To this end, three different questionnaires were used: one for medical students, one for General Practitioners, and another for instructors. The questionnaires were designed for the purpose of gaining insight into the language learners` needs. The questionnaires were constructed based, in part, on information gained from informal interviews, on questionnaires used in previous needs analysis conducted in medical contexts (Boztas, 1988; Akgul, 1991; Chia *et al.*, 1998) and on the literature on ESP and EMP.In the questionnaires, there were four types of questions for demographic information, Likert-scale, ranking and multiple response questions. In order to explore whether the instruments used in this study met the fundamental psychometric requirements, reliability and validity of the questionnaires had to be considered. The values of Cronbach alpha reliability estimated of all the three questionnaires were higher than the least minimum required (higher than 0.70), which is considered acceptable.

2.1. Data Collection

The questionnaires for General Practitioners were distributed in some hospitals and some members filled them in there and then, and some wanted to fill it in at home and return it afterwards. Out of 55 questionnaires, 40 were collected. The questionnaires were distributed to the students in their dormitory. Out of 150 distributed questionnaires, 110 were returned. As for the questionnaires for instructors, first they were visited in their offices and their cooperation was requested. The questionnaires were submitted to them and collected by hand.

2.2. Data Analysis

The collected data were analyzed using the program Statistical Package for Social Sciences (SPSS). Different descriptive statistics including mean, standard deviations were used for different questions types in the questionnaires and the non-parametric Mann Whitney U test was computed to compare is there any significant difference between the Medical students and General Practitioners in terms of their perception of their English language needs.

3. RESULTS AND DISSCUSIONS

Descriptive statistics were used in order to determine participants' perceptions towards language skills and needs in their EMP courses and in their workplace.

3.1. The Findings of the Research Questions

3.1.1. The First Research Question

What language skills (reading, writing, listening, and speaking) and sub-skills are prioritized by students of medicine at Guilan University of Medical Sciences, and general practitioners who graduated from Guilan University of Medical Sciences?

Students' Perceptions of English Skills

		Why writing skills are necessary for medical students?	Why reading skills are necessary for medical students?	Why speaking skills are necessary for medical students?	Why listening skills are necessary for medical students?
N	Valid	110	110	110	110
	Missing	0	0	0	0
Mean		3.9295	4.0341	3.7864	3.8424
Std. Error of Mean		.05014	.03744	.05094	.05250
Median		4.0000	4.0000	4.0000	4.0000
Mode		3.75[a]	4.00	4.00	4.00
Std. Deviation		.52586	.39270	.53431	.55062
Variance		.277	.154	.285	.303
Skewness		-.065	-.071	-.939	-.976

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Kurtosis	-.472	-.516	3.655	3.399
Minimum	3.00	3.25	2.00	2.00
Maximum	5.00	4.75	5.00	5.00
Sum	432.25	443.75	416.50	422.67

In general, Medical students appreciated reading skill, higher than the other language skills(X=4.03) followed by writing skill (X=3.92). However, for the Medical students, speaking skill had the least significance(X= 3.78).

General Practitioners' Perceptions of English Skills

		Why English writing skills are necessary for GPs?	Why reading skills are necessary for GPs?	Why listening skills are necessary for GPs?	Why speaking skills are necessary for GPs?
N	Valid	40	40	40	40
	Missing	0	0	0	0
Mean		4.0857	4.1375	3.9850	3.8900
Median		4.1429	4.2500	4.0000	4.0000
Mode		4.14	4.50	4.20	4.00
Std. Deviation		.35556	.45976	.32781	.40243
Variance		.126	.211	.107	.162
Skewness		-.881	-.774	.016	-1.176
Kurtosis		.609	.910	-.385	1.198
Minimum		3.29	2.75	3.20	2.80
Maximum		4.57	5.00	4.60	4.60
Sum		163.43	165.50	159.40	155.60

Similarly general practitioners predominantly valued reading skill higher than the other language skills(X=4.13) followed by writing skill (X=4.08). Furthermore, for the general practitioners, likewise the medical students, speaking skill had the least significance(X= 3.89).

3.1.1.1. Prioritizing English Sub-Skills from Medicine Student`S Perspective

The data obtained from the students revealed that the need for English writing skill "*to write research papers*" had the highest mean rank, the need for English reading skill "*to read textbooks and resource books*" was of greatest importance for the students,in additions, the need for English listening skill "to *understand discussions on medical issues*", and at last the need for English speaking skill "*to make presentations at seminars and conferences*" was reflected as higher needs by medicine students.

3.1.1.2. Prioritizing English Sub-Skills from GP`S Perspective

For GPs, English writing skills were reported to be of great importance for to "*write research papers*", the need for English reading skill "*to read medical journals and articles*.", furthermore, the need for English listening skill "*to understand discussions on medical issues*" and "to *understand film and documentaries related to medical sciences.",* finally, the need for English speaking skill "*to make presentations at seminars and conferences*" had the highest mean rank.

3.1.2. The Second Research Question

What are the English instructors' attitudes towards language needs of students of medicine at Guilan University of Medical Sciences?

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English Instructors' Attitudes towards Language Needs of Students of Medicine (Writing Skills)

	Mean	Std. Deviation	N
1. English writing skills are necessary to write laboratory reports	4.2667	.59362	15
2. English writing skills are necessary to take notes during lectures	3.7333	.79881	15
3. English writing skills are necessary to write research papers	3.8100	.86189	15
4. English writing skills are necessary to write resume	3.8000	.89189	15

According to the English instructors, "*writing laboratory reports*" was among the most important writing needs of the students of medicine (X= 4.26). On the contrary, the need for writing skill "*to take notes during lectures*" was reported to be the least important function of writing skill for the students of medicine(X=3.73).

English Instructors' Attitudes towards Language Needs of Students of Medicine (Reading Skills)

	Mean	Std. Deviation	N
1. English reading skills are important to read textbooks and resource books	4.2000	.41404	15
2. English reading skills are important to read medicine instructions	3.9333	.45774	15
3. English reading skills are important to read medical journals and articles	4.2667	.88372	15
4. English reading skills are important to read and interpret graphs, charts and tables	3.7333	1.03280	15

Instructors perceived higher importance for the role of English reading skills to help medicine students "*read medical journals and articles*" (X=4.26) followed by the need "*to read textbooks and resource books*" (X=4.20). In contrast, the instructors identified that the need for English reading to "*read and interpret graphs, charts and tables*" was the least significance for the medicine students (X=3.73).

English Instructors' Attitudes towards Language Needs Of Students of Medicine (Listening Skills)

Item Statistics			
	Mean	Std. Deviation	N
1. listening skills are necessary for medical students to understand daily conversations	3.4667	1.18723	15
2. listening skills are necessary for medical students to follow spoken instructions from lecturers	4.2667	.88372	15
3. listening skills are necessary for medical students to understand discussions on medical issues	4.0667	.70373	15
4. listening skills are necessary for medical students to understand speeches at seminars, and conferences	4.0000	1.00000	15
5. listening skills are necessary for medical students to understand and take notes during lectures	4.0667	.79881	15
6. listening skills are necessary for medical students to understand film and documentaries related to medical sciences	4.3333	.48795	15

Instructors reported the highest significance for the role of listening skill for the medicine students to "*understand film and documentaries related to medical sciences*" (X=4.33) closely followed by " *to follow spoken instructions from lecturers*" (X= 4.26). In contrast, the need for listening skill "*to understand daily conversations*" was identified to have the least significance for the students of medicine (X=3.46).

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	Mean	Std. Deviation	N
1. speaking skills are necessary for medical students to carry on daily conversations in class/hospital	3.6000	.73679	15
2. speaking skills are necessary for medical students to present oral reports	3.6667	.81650	15
3. speaking skills are necessary for medical students to make presentations at seminars and conferences	4.2000	.41404	15

The results showed that the need for speaking skill for medical students "*to make presentations at seminars and conferences*" was reported to be of highest importance (X= 4.20). Besides, "*carrying on daily conversations in class/hospital*" had the least seriousness for the students(X= 3.60).

3.2. Discussion

3.2.1. Discussion of the First Research Question

What language skills (reading, writing, listening and speaking) and sub-skills are prioritized by students of medicine at Guilan University of Medical Sciences and General Practitioners who graduated from Guilan University of Medical Sciences? Regarding the data gathered from questionnaires, students of medicine appreciated reading skill higher than other language skills (with mean rank of 4.3), followed by writing skill (with mean rank of 3.92) listening (with mean rank of 3.84), and speaking skill had the least significance (with mean rank of 3.78).

Similarly General Practitioners valued reading skill higher than the other language skills (with mean rank of 4.13) followed by writing skill (with mean rank of 4.08), listening (with mean rank of 3.99), and the speaking skill (with mean rank of 3.89).

3.2.2. Discussion of the Second Research Question

What are the English instructors' attitudes towards language needs of students of medicine at Guilan University of Medical Sciences?

According to the English instructors, "*writing laboratory reports*" was among the most important writing needs of the students of medicine, the reason can be the fact that most of medical words and expressions are in English language so they need to use the English words in their writings. As medical students need to get know about the new science and knowledge about medical field and they mostly present in English, instructors reported the highest significance for the role of listening skill for the medicine students to "*understand film and documentaries related to medical sciences*" and the reason of the need for speaking skill for medical students "*to make presentations at seminars and conferences*" can be explain from this point of view that instructors themselves have to participate in some conferences inside and outside of the country so they perceived it as an necessary item for students too. They perceived higher importance for the role of English reading skills to help medicine students "*read medical journals and articles*", the logic behind this chose can be the fact that they need a great level of knowledge about different medical situations, instructions, and about different kinds of diseases. This related knowledge mostly tends to be published in English in different journals and articles.

4. CONCLUSION AND RECOMMENDATIONS

The results of the study revealed that both medical students and GPs valued reading skill higher than the other language skills. Beside the fact that English reading skill is much more important in medical field, Medicine students and GPs require developing their English language proficiency in other skills as well and acquire a high level of English skills to be prepared for their professional lives. To completely meet the academic-related and job-related language needs of the students more English language credits and longer class time are recommended to be given to the students of medicine. All medical students and General Practitioners seem to be aware of the necessity of English

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in their professional lives regardless of the condition they experience. So it is worth paying attention why the current curriculum does not meet the English needs of medicine students. Similar studies based on an investigation could be carried out to the medicine students and specialists, the research might deal with comparison of their English needs revealed by each group. In addition, this research investigated the English needs of medicine students in their third and fourth year of their studies at the college. However, it is important to identify the same needs as report by junior and senior students to see how these perceived needs reconcile with results of the proposed study.

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