

## Original Article

# Assessing Linguistic Needs of Students at Kermanshah University of Medical Sciences from their Own Perspectives

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## Abstract

**Introduction:** Assessment and analyzing medical students' linguistic needs is the most effective factor in designing courses related to English language. This research aimed at finding out the linguistic needs from the perspectives of the students at Kermanshah University of Medical Sciences (KUMS) in/for the process of English curriculum development.

**Methods:** The framework of needs analysis was employed. A standard and validated questionnaire was distributed among 160 medical students. Since the medical courses are introduced during 7 years (grades) in Iran, the sample was selected from all these seven grades. The sample population consisted of 25 first grades, 24 second grades, 21 third grades, 21 fourth grades, 21 fifth grades, 22 sixth grades, and 26 seventh grades. Their ages ranged between 18 and 26.

**Results:** Problems such as: not using appropriate pedagogical materials, overcrowded classes, and boredom of English for Specific Purposes (ESP) classes were regarded as the main problems of ESP courses respectively. Low level of teacher's knowledge of English for Medical Purposes (EMP) was perceived by students as another problem of EMP classes. The results also offer insights that about half of the students prefer learning English individually or in small groups, rather than by the whole class, and like learning by listening and from CD/DVD/films. KUMS students perceived general English in the first years and medical English in the next years as the best curriculum design. They also felt the need of input or receptive skills before output or productive skills.

**Conclusion:** Curriculum designers should develop EMP courses based on required and specified needs of the students and appropriate pedagogical materials and text books should be selected accordingly and consequently English teaching should begin at the first year of university.

**Keywords:** Linguistics, Needs assessment, Medical students, Curriculum

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## Introduction

Basturkmen considers English for Medical Purposes (EMP) as a sub-branch of English for Specific Purposes (ESP) (1). The aim of EMP is to assist medical students study their subject matter, be able to communicate in English, learn how to write patient

charts, medication prescriptions and orders in English in their career in the future. In this regards, one of the most important factors that affects curriculum design of EMP is the needs analysis of students from their perspectives. Johns & Price-Machado state that "in every genuine ESP

course, needs assessment is obligatory, and is integral to curriculum design and evaluation" (2).

In a study conducted by Gelan et al., the researchers found that the current language courses do not seem to respond to the students' target language needs because they are deficient to help the students to improve the English language skills required in their studies. So, the study offered relevant English courses that are designed based on an ESP orientation to meet the students' needs (3).

Faraj assessed the English language needs of Libyan medical students. The researcher concluded that medical curriculum should include all major English language skills, English instructors should improve their knowledge in medical subjects, and finally it is better to use Communicative Language Teaching (CLT) for teaching English in the medical context (4).

Önder Özdemir conducted a research to diagnose the English for Academic Purposes (EAP) needs of Turkish medical students. It was concluded that medical students need to learn medical terms and in academics' points of view medical vocabulary was important for written and spoken communication (5).

The aim of this study is to determine and analyze the linguistic needs of the students at Kermanshah University of Medical Sciences (KUMS). More specifically, it aims at getting information about the extent to which they use English in their medical studies, the best pedagogical materials, methods, schedules and activities for teaching English to them and other useful information about their linguistic needs. More exclusively the present study tries to answer the following Research Questions (RQ):

RQ1: To what extent do the students at KUMS use English in their medical studies?

RQ2: What pedagogical materials, methods, schedules and activities for teaching English are more satisfying to or needed for the students at KUMS?

## Methods

This cross sectional study is a non-experimental survey. Survey is defined by Ary et al. as a type of research which uses tools such as interview and questionnaire to gather data from a group of individuals (6). In this study questionnaire was employed. Since the medical courses are introduced during 7 years (grades) in Iran, the sample was selected from all these seven grades (the population of the study included 270 students, from which 160 students were selected using proportional stratified sampling). The sample consisted of 25 first grades, 24

second grades, 21 third grades, 21 fourth grades, 21 fifth grades, 22 sixth grades, and 26 seventh grades. Their ages ranged between 18 and 26. Questionnaire was utilized for collecting the data. The questionnaire was adapted from Basturkmen (1) and two earlier survey instruments by Chia et al. (7) and Yang (8). It was adopted and translated into Persian, then piloted for determining its reliability and validity. The reliability of the questionnaire was measured through Cronbach's alpha (0.82) via administering the questionnaire among 30 students based on stratified proportional sampling and collecting the data. The questionnaire was validated through content analysis by medical and TESOL professionals.

The questionnaire was composed of three sections. The first section consisted of participants' demographic information such as their age, grade, frequency and percentage. The second section of the questionnaire consisted of three items for determining the extent of using English by KUMS students. The third part of the questionnaire consisted of nine multiple response items and a three Likert-type scale investigating the more satisfying and needed pedagogical materials, methods, schedules and activities for teaching English to medical students.

The permission to administer the questionnaire was obtained from the university administration. The researchers were asked to write a letter of request containing the purpose and the nature of the study with a copy of the questionnaire. After doing so, the letter of permission to distribute the questionnaires was sent to the researchers. Then data was collected and analyzed utilizing different statistical techniques (both descriptive and analytical statistics). First, for all questions, descriptive statistics displaying frequencies and percentages were employed. The priority order of some Likert-scale items was analyzed with calculating mean rank through Friedman test.

## Results

The first part of the questionnaire elicited participants' demographic data. As stated above, the total number of the students was 160, consisting of 25 freshmen (15.6%), 24 sophomores (15%), 21 juniors (13.1%), 21 seniors (13%), 21 fifth graders (13.1%), 22 sixth graders (13.8%), 26 seventh graders (16.3%). Their ages ranged between 18 and 26. The results of the data from item 1 to item 3 of the questionnaire provided answers to the first research question. Regarding the language used in class oral presentations, 59.9% of the participants stated that they presented the course content in Persian but gave medical terms in English. 32.8% presented in Persian, and 7.3% presented in English. With respect to the percentages of

the reading materials (such as journal articles or textbooks) in English for medical students, 53.8% of the participants indicated that less than 50%, 36.3% stated

51%-70%, 6.3% showed 71%-90%, and only 3.8% indicated that 91%-100% of the reading materials are written in English (Table 1).

**Table 1. Distribution of students' characteristics and responses to questions**

	Characteristics and responses	Frequency	Percent
Students grade	First	25	15.6
	Second	24	15
	Third	21	13.1
	Forth	21	13.1
	Fifth	21	13.1
	Sixth	22	13.75
	Seventh	26	16.25
Language used in class oral presentations	English	12	7.5
	Persian but medical terms in English	96	60.0
	Persian	52	32.5
Percent of the reading materials in English	Less than 50	86	53.75
	51-70	58	36.25
	71-90	10	6.25
	91-100	6	3.75
Circumstances students use English	Hand in reports in English	17	10.62
	Deliver presentation in English	21	13.13
	Write examination answers in English	25	15.62
	Write research papers in English	27	16.88
	Discuss with teachers or classmates in English	16	10
	Attend hospital English medical meeting	18	11.25
	None	36	22.5
The reasons of dissatisfaction with the current ESP classes	Boredom of ESP classes	27	16.88
	Low English proficiency of students	22	13.75
	Overcrowded classes	29	18.12
	Low level of EMP knowledge of teachers	24	15.0
	Not using appropriate pedagogical materials	33	20.62
	Using out of date material and textbooks	25	15.62
Total		160	100

Regarding the circumstances in which students use English, 17.1% of students showed that they use English in writing research papers, 14.9% in writing examination answers, 12.8% in delivering presentation, 11.4% in attending hospital and English medical meetings/conferences, 11% in handing in reports, 10% in discussing with teachers or classmates, and surprisingly 22.8% stated that in none of the circumstances they use English as a medium of interaction. The results of the items in part three of the questionnaire provide answers for the second research questions. Considering the students' satisfaction or dissatisfaction with the pedagogical materials, methods, schedules and activities for teaching English to KUMS, results showed that 21% of the students regard not using appropriate pedagogical materials, 17.9% overcrowded classes, 17% boredom of ESP classes, 15% using outdated material and textbooks, 14.8% insufficiency of EMP instructors' knowledge, and 14.2% the low English proficiency of students as their reason for dissatisfaction. With the most satisfying methods of learning English, 28% of students preferred to learn with the whole class, 26.6% of them liked learning

individually, 22.1% chose to learn in small groups and 23.2% preferred other ways of learning English (Table 1).

Regarding the methods and techniques students preferred or needed in learning English, 26.5% of the participants liked learning English by listening, 20.4% by reading, 19.8% by listening and taking notes, 9.3% by repeating what they hear, 7% by reading and making notes, 6.4% by memorizing, 5.4% by problem solving, 2.6% by copying from the board, and 2.6% by getting information for themselves. Considering the materials students preferred in learning English, 22.2% of the students claimed that they like learning English from television/video/DVD/films, 22.2% from written materials in English, 18.9% from tapes/CDs/cassettes, 12.6% from social networks, 10.8% from pictures/posters, 5.4% from internet, 5.4% from the blackboard/whiteboard, and 2.7% from radio. In terms of the useful activities for learning English, 25% of the students stated that they found the activity of talking with and listening to other students, 24.2% debate, 20.4% listening to English songs, 12.6% language games, 10.85 role play, and 7% memorizing conversations/dialogues

helped their English learning. In addition, 37% of the students maintained that they got satisfied when they felt more confident in situations that they found challenging before, 30.3% from being told that they have made progress by teachers, 24.4% by passing a certain English proficiency exam (such as: TOEFL, IELTS, and etc.), and 8% from having their work graded in the English course.

Regarding the satisfying ESP curriculum for medical students, the most satisfying design perceived by the 28.6% of the students was general English in the first and second years, followed by medical English in the third year. The second desirable design was having both medical and general English from the first through the third year. In response to the linguistic aspect of the curriculum design, the most satisfying curriculum perceived by 27.4% of students was reading class in the first year, listening class in the second year, and conversation class in the third year.

With regard to the determined units and hours for the ESP course, 28.1% of the students believed that it was

sufficient to improve their linguistic needs, 19% felt the need for extending the time allocated to this course during the week, 27.5% agreed to increase its hours and have the course through the next years, and 25.5% wanted extending the course time during the week. Regarding other assistance or requirements for medical students' linguistic needs, 45% of the participants believed that delivering an ESP course in English would help them to improve their proficiency in English and 28.8% agreed on delivering an ESP course in Persian. 45.6% of the students felt the need for passing a certain English proficiency exam (such as: having a score higher than 80 on the TOEFL test, or taking extra English courses). To determine the rank of the different requirements for medical students' linguistic needs, Friedman test was run. The results of Friedman test showed that passing a certain English proficiency exam such as TOEFL, followed by delivering an ESP course in English and delivering an ESP course in Persian are the most important needs for improving English proficiency of the students (Table 2).

**Table 2. Frequency (Percent) of students' responses regarding assistance or requirements for medical students' linguistic needs**

Assistance or requirements for medical students' linguistic needs	Strongly disagree	Disagree	No idea	Agree	Strongly agree	Mean rank	Friedman test
If the ESP course being delivered in English, it could help medical students improve their proficiency in English	10 (6.25)	17 (10.6)	30 (18.75)	72 (45.0)	31 (19.4)	3.03	
If the ESP course being delivered in Persian, it could help medical students improve their proficiency in English	10 (6.25)	30 (18.75)	47 (29.37)	46 (28.75)	27 (16.87)	2.94	$\chi^2=60.7$ df=2 P value =0.001
If other requirements for medical students' linguistic needs could help them improve their proficiency in English	0 (0.0)	15 (9.4)	40 (25.0)	73 (45.6)	32 (20.0)	3.62	

## Discussion

Students perceived presenting in international conferences as the most needed task for speaking and it shows the high motivation of students to participate in international conferences.

Among different tasks of writing, writing research papers was felt as the most needed and writing course assignments and exams as the least, so it is concluded that there is a little, if any, need to write assignments and test answers in English in KUMS. Most of the participants stated that they presented the course content in Persian but gave medical terms in English and it is consistent with the previous result of the study that reading English medical terminology was the most important task in reading skill. According to students' ideas less than 50% of their reading materials are written in English. With regard to the circumstances students use English, they

respectively ranked writing research papers, delivering presentation, attending hospital English medical meetings/conferences, handing in reports, and discussing with teachers or classmates. Surprisingly, 22.8% stated that in none of the circumstances they use English as a medium interaction.

Students rated problems such as: not using appropriate pedagogical materials, overcrowded classes, and boredom of ESP classes as the main problems of ESP courses. Using outdated material and textbooks, low level of EMP knowledge of teachers, and low English proficiency of students were other reasons for students' dissatisfaction with the current ESP classes. It is obvious that teachers cannot handle the overcrowded classes effectively in a way that they have enough time to comment on students' performance, correct their mistakes, discuss with them about the effectiveness of the course books and materials, and etc. Of course with small classes, students have more opportunity to participate in English tasks and activities.

A likely explanation for the boredom of classes in students' point of view is that, in addition to overcrowded classes, in ESP curriculum of KUMS outdated textbooks and materials are still used. Another reason might be the fact that the low proficiency level of students' in English might affect their motivation and enthusiasm for learning English and make them bored in ESP classes. Of course, the low level of EMP knowledge of teachers is not ineffective on students' motivation.

The results also offer insights that about half of the students prefer learning English individually or in small groups and this is probably because the number of students is usually too large in EMP classes and they want more attention from their teacher. Additionally, about half of the students like learning by listening and reading rather than memorizing, problem solving or copying from the board which was consistent with the findings of Hwang & Lin (9). Most of the students prefer learning from television/video/DVD/CD films or written material in English instead of learning from posters, blackboard/whiteboard, or radio. They also found the activities of talking with and listening to other students, debate, and listening to English songs useful. It is also in line with the findings of Hwang & Lin (9) and Saragih (10). It shows that traditional approaches to English language training cannot fulfill the students' needs anymore. They felt the need of communicating in English and coping with their English in current academic situation and future career.

Most of the students maintained that they got satisfied when they felt more confident in situations that they found challenging before and from being told that they have made progress by teachers. These findings emphasize on the role of encouraging and motivating the students.

Regarding the most satisfying EMP curriculum, KUMS students perceived general English in the first and second years, followed by medical English in the third year and reading class in the freshman year, listening class in the sophomore year, and conversation class in the junior year as the best. It implies that students felt the need of input or receptive skills before output or productive skills. Most of the students agreed to extend the time allocated to EMP course during the week or having it through the next years. More than half of the students agreed that delivering an ESP course in English would help them to improve their proficiency in English and passing a certain English proficiency exam (such as: getting a score higher than 80 on the TOEFL test, or taking additional English courses) is needed as a part of their university entrance exam. In this regard the findings are in line with some

Iranian researchers in this area such as Akbari (11), Hashemi & Radmehr (12) and Boniadi et al. (13).

So, the above findings are in line with some of the researchers' studies and not in line with others. For example, the results are consistent with the findings of Alharby (14) and Hwang & Lin (9) but contradicted the findings of Javid & Umer (15).

## Conclusion

A standard proficiency test (like TOEFL) should be considered as a part of student's university entrance exam. Accordingly, categorizing students into different classes based on their English level and different EMP syllabuses should be designed regarding those different classes. Also, syllabus designers should consider general English for the first years and medical English for the next years. In addition, EMP instructors should deliver the course in English to help the students improve their proficiency in different skills and sub-skills and traditional approaches to teaching should be avoided. It is better to allocate a special time to fostering students' proficiency in reading and writing medical research papers. Furthermore, curriculum designers should develop the EMP course based on appropriate pedagogical materials and text books.

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