RESEARCH ARTICLE

Designing an ESP Course for Students of Medicine

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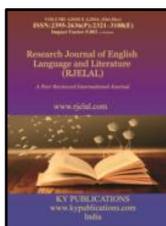
ABSTRACT

The purpose of this research paper is to examine professional needs of English language for students of medicine. For the purpose of finding out English language needs for students of medicine, varied method has been used. Three groups of research population are selected for gathering data considering them main participants of this professional discourse community. These population groups: students of medicine, professional trainers and graduates of medicine. A questionnaire was developed to collect data from students of medicines and interviews were conducted to gather relevant information from professional trainers and stud. Quantitative data were analyzed using SPSS and qualitative data were analyzed through thematic analysis identifying common themes from respondents' responses. The findings of this research paper indicate that proficiency in English language is a key factor for success in medical profession. The study presents recommendations and directions to design ESP course for students of medicine.

Keywords: English for specific purposes (ESP), English for academic purposes (EAP), English for occupational purpose (EOP), needs analysis, course design.

Yang (2006) describes that English has gained status of lingua franca for interaction in the global markets. It is an essential and recognized medium of communication in various professions such as business, engineering, law, medicine, science and technology. Csillia (2009) states that English is God-given, noble, rich and interesting language but other languages have not attained these characteristics. English is being used in most esteemed research journals to publish the renowned research studies related to technology, science, education, medicine and business. English is the only main language of international meetings, briefings, conferences and discussions. Owing to all aforesaid factors, it is inevitable for professionals to be expert in English language.

As the need of English has been increased, ESP courses are being introduced in a number of fields.

The medium of instruction for the field of the medicine is English. The students of medicine need to interact with the educational domain of the medicine. For this purpose, English is more useful than any other language. The students of medicine are required to perform their professional activities like presentations, doing exams, discussion, and written assignments in English. As English has gained status of sole language of international communication, it is essential that students of medicine must be competent in use of English for their educational and later on occupational activities.

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The aim of the present study is to analyze students of medicine' needs and provide proposals for designing an ESP course to cater their occupational language needs. It is expected that they will be able to comprehend specific profession related register of technical terms and expressions needed in educational and occupational settings.

Hutchinson and Waters (1987) said "ESP is an approach to language teaching in which all decisions as to teaching content and teaching method are based on learner's reason for learning" (p.19). Furthermore, Hutchison and Waters explained that "tell me what you need English for and I will tell you the English that you need" (ibid, p. 18). According to Schleppegrell and Bowman (1986), there were two major differences between ESP and ESL/EFL. The first main difference lies in the purpose for learning the language and nature of the learners. They explained that the ESP adult learners already are little familiar with English and purpose of their language learning is to interact and fulfill specific job-related functions. Schleppegrell and Bowman (1986) presented the second main difference is the scope of goals of instructions. They elucidated this by saying that four language skills are focused alike in EFL/ESL while process of need assessment points out what language skills are required to the learners in ESP. Hutchison and Waters (1987) assert that difference of GE from ESP is in theory nothing but in practice great deal. According to them, ESP is not a product but is an approach. It does not include particular methodology and materials for teaching. It may be referred as learner's need based approach of language learning.

It becomes evident studying aforesaid definitions that ESP focuses learners' specific needs and uses need based on teaching methodology, and utilizes task-based communicative approach. ESP also recognizes discourse and its certain linguistic features. It prepares learners to perform appropriately in academic and professional settings. As a matter of fact, content and language teaching in ESP are greatly motivating because learners can use what they learn in their classes to their main fields of study and work place settings.

Carter (1983) divided ESP into three major types:
1. English as a Restricted Language
2. English for academic and occupational purposes
3. English with Specific Topics.
Hutchinson & Waters (1987) presents 'Tree of ELT' in which ESP is subdivided into three branches:

•English for Science and Technology (EST)
•English for Business and Economics (EBE)
•English for Social Studies (ESS)

According to Jordan (1997), these subject areas can be further broken down into two branches: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). An example of EAP for the EST branch is 'English for Medical Studies' whereas an example of EOP for the branch of EST is 'English for Technicians'.

According to Hutchinson and Waters (1987: 16), there is no marked distinction between EOP and EAP. They argue, "people can work and study simultaneously; it is also likely that in many cases language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job". This is the reason that Carter classified EOP and EAP under similar kind of ESP. According to him, final purpose of EOP and EAP is same but means to achieve end purpose is very different.

English has been selected as the language of communication at international level. This fact justifies that English is the first language (L1) of the most advanced economic and technology powers of the modern world. Hutchinson and Waters (1987) pinpointed that "A great deal about the origins of ESP could be written. Notably, there are three reasons common to the emergence of all types of ESP: the demands of a brave new world, a revolution in linguistics, and focus on the learner" (ibid, p.6).

ESP has undergone different stages of development. These are: (1) Register Analysis (2) Rhetorical Discourse Analysis (3) Target Situation Analysis (4) Skills Centered Approach (5) Learning-Centered Approach

Register Analysis in 1960s and early 1970s. This type of analysis was carried out because experts

in ESP focused on determining the main characteristics of genuine language settings where learners use language. In late 1970s and early 1980s, second phase in the development of ESP known as Rhetorical Discourse Analysis started. The focus shifted from sentence level to beyond the sentence level.

The next phase aimed at analysis of the potential situations where the target language would be used. According to Hutchinson and Waters (1987) and John (1991), third stage of ESP development emphasized the Target Situation Analysis (TSA). Taking into consideration the learners' reasons of foreign language learning, ESP courses are designed for helping the learners to act adequately in a target situation. For this purpose, first target situation is analyzed; second linguistic features of this target situation are identified. The process was named as 'Needs Analysis'.

At the fourth stage of ESP development, Skills-Centered Approach was an effort for considering not the language itself but the reasoning and thinking processes underlying language usage (skills and strategies), which facilitate learners understand meaning of the discourse. Cognitive learning theories influenced this phase of ESP development.

The flaws in the preceding phases gave way for the fifth stage of ESP development which is termed as Learning-Centered Approach by Hutchinson and Waters (1987). The fifth phase shifted the emphasis from language use to language learning. According to John (1991), instead of focusing on discourse, communicative situations, learners' communicative needs or purposes, the emphasis of fifth phase was on the strategies that students used for acquiring target ESP.

Considering on my research questions, purpose of the study, the type of data and population, I have determined to join both the quantitative and qualitative research approaches. I have decided to use the following research instruments in this research paper:

Questionnaires
Interviews

Observation and other data collection tools could be used but they were not added due to problems in using these techniques during actual research setting.

The purpose of my present research is to analyze professional English language needs and provide suggestions to design a course for the students of medicine. To fulfill this aim, I have selected the following population groups to collect relevant information:

students of medicine
Professional Trainers
Graduates of medicine

In this study, I selected a group of students of medicines that consisted of 90 Students from different medical colleges.

Questionnaires and interviews have been used as main data collection instruments in this study. As in this research study views and opinions of a number of participants (students of medicine, graduates of medicines, professional trainers) were required, the data have been collected on large scale and in three stages.

At the first stage, collection of data was started from the professional trainers, first using questionnaire and then interviews for details. At the second stage, questionnaires were used to collect data from the students of medicine relevant to their educational language needs and the existing English Syllabus. At the last stage, graduates of medicine were interviewed to identify the professional language needs and language problems of graduates of medicine.

Nowadays, it is strongly proposed (Freankel and Norman: 2006) to use some kind of software for analysis of data. The use of software helps to reduce the analysis time and makes procedure systematic and ensures completeness. For accurate analysis of quantitative data of questionnaires, SPSS has been used. Thematic analysis technique has been employed to analyze qualitative data. First, I developed a table with two columns. Then, I added the participants' word by word responses in the first column and a short summary of the major points in the whole response was added in the second column. In the end, I grouped the related themes

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and identified common themes to analyze the respondents' responses.

The participants were provided options to point out the importance of each reason for learning English language on the Likert scale.

Table: 1 Causes of learning English language

Reason	Strongly Agree	Slightly Agree	Not Sure	Slightly Disagree	Strongly Disagree
Fulfilling language requirements as students of medicine	45.8%	37.5%	16.7%	0	0
To broaden outlook and acquire new ideas	61.1%	52%	1.4%	8.3%	4.2%
To make presentations at seminars	79.2%	15.3%	5.5%	0	0
Acquiring access to the information technology	48.6%	30.6%	20.8%	0	0
Access to References, books and journals	41.7%	22.2%	6.9%	18.1%	11.1%
To gain success in academics and future professional life	76.4%	12.5%	0	8.3%	2.8%
Achieving social status and acceptability	56.9%	25%	4.2%	5.6%	2.8%

A large number of respondents 45.8% opted for 'strongly agree' and 37.5% 'slightly agree' option when asked they learned English for 'fulfillment of language requirements as students of medicine. Most of the participants 61.1% selected 'strongly agree' and 25% 'slightly agree' category considering broadening of outlook and acquiring of new ideas as a reason. 79.2% of the respondents totally agreed that making presentations was the important reason for learning English language. A good number of the students of medicine 48.6% were strongly agreed that acquiring access to information technology was

the main cause of English language learning. There were 41.7% participants who chose 'strongly agree' option of the reason 'Access to books and references'. According to 56.9% of the respondents, they had strong agreement on the cause 'achieving social status and acceptability'. Majority of the students of medicine, 76.4% 'strongly agreed' and 12.5% 'slightly agreed' that they wanted to learn the English language for gaining success in future professional life.

The participants were provided options to identify the difficulties in English language.

Table: 2 Language difficulties for Students of medicine

Difficulty Area	Most difficult	Vey difficult	Quite difficult	Somewhat difficult	Not Difficult
Understanding lectures in English	0	1.4%	12.5%	20.8%	65.3%
Listening dialogues while watching English media	19.4%	26.4%	30.6%	15.3%	8.3%
Conversation with foreigners	27.8%	34.7%	16.7%	12.5%	8.3%
Participation in seminars and	26.4%	36.1%	13.9%	13.9%	9.7%

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discussions					
Delivering presentations in English	9.7%	18.1%	34.7%	22.2%	15.3%
Writing reports and assignments in English	0	2.8%	5.6%	31.9%	59.7%
Reading the materials related to Medicines in English	0	0	6.9%	25%	68.1%

It is note-worthy that 65.3% of the respondents did not feel any kind of difficulty while attending lectures and listening their professors. Majority of the students of medicines encounter difficulty in comprehending dialogues when they watch English movies or TV shows. The conversation with foreigners was categorized 'most difficult' and 'very difficult' by 27.8% and 34.7% of the respondents respectively. Participation in seminars and discussions was viewed 'most difficult' and 'very difficult' by 26.4% and 36.1% participants. Out of 72 students of medicine, 59.7% found writing reports and assignments 'not difficult' and 31.9 % 'somewhat difficult'. 68.1% respondents opted for 'not difficult' and 25% for 'somewhat difficult' reading the material related to medicines in English.

Table: 3 Difficulties in different aspects of skills

Difficulties in different aspects of listening skill	Understanding		Decoding		Notes Taking	
	26.4%		20.8%		52.8%	
Difficulties in different areas of speaking skill	Confidence	Conversational Ease	Vocabulary	Grammar	Pronunciation	
	12.5%	5.6%	44.4%	18.1%	19.4%	
Difficulties in various aspects of reading skill	Subject matter	Vocabulary	Argument structure	Reading Speed	Writer's style	
	8.3%	56.6%	15.3%	2.8%	18.1%	
Difficulties in various aspects of professional writing	Words spelling	Vocabulary	Grammar	Verb (tenses)	Punctuation	Ordering of ideas
	15.3%	12.5%	11.1%	23.6%	8.3%	29.2%

The respondents who returned the questionnaire, 52.8% found difficulty in 'notes taking'. 44.4% participants found difficulty in 'vocabulary' while speaking in English and 19.4% found in 'pronunciation'. When informants were asked their views about difficult aspect in reading skill, 55.6% opted for 'vocabulary' and 18.1% opted for 'writer's style'. The respondents were asked about difficulties in various aspects of professional writing. Out of all the respondents, 29.2% found difficulty in 'ordering of ideas' and 23.6% in 'verb (tenses)'.

As preferences of the learners are essential to consider before designing a course, the items in this section aimed at identifying the skills which are important for students of medicine.

Table: 4 Language skills importance for students of medicine

Language Skills	Most Important	Very Important	Quite Important	Somewhat Important	Not at all
Listening skill	23.6%	54.2%	12.5%	8.3%	1.4%
Speaking skill	76.4%	19.4%	4.2%	0	0
Reading skill	27.8%	40.3%	20.8%	6.9%	4.2%
Writing skill	55.6%	27.8%	11%	5.6% 0	0

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Out of all, 54.2% of the participants considered listening 'very important' skill and 23.6% found listening 'most important'. Majority of the respondents 76.4% categorized speaking skill 'most important'. Comparatively, less number of the participants 40.3% opted for 'very important' option

with regard to reading skill. Writing skill was rated 'most important' by 55.6% informants.

The questions in this section are included to gather information about existing English language syllabus, training courses and teaching methodology as perceived by the students of medicine.

Table: 5 Appropriateness of existing English syllabus, courses, preferred teaching method and preferred learning activity

Existing English syllabus appropriateness	Not at all	To very little extent	To little extent	To moderate extent	To great extent
	2.8%	15.3%	30.6%	44.4%	6.9%
Current courses and professional needs	1.4%	4.2%	11.1%	61.1%	22.2%
Preferred teaching method	Elective method (combination of all)	Direct method	Grammar translation method	Communicative method	Lecture method
	44.4%	11.1%	8.3%	22.2%	14%
Preferred English learning activity	Discussions and debates	Role play	Problem solving	Practice of pronunciation	Grammar learning and practicing
	25%	11.1%	13.9%	27.8%	22.2%

Majority of the students of medicine were not satisfied with the existing English syllabus in terms of their professionals needs. Only 44.4% viewed existing English syllabus appropriate 'to moderate extent' for professional needs. The current English language training courses materials were rated appropriate 'to moderate extent' by 61.1% participants. Out of all, 44.4% opted the 'elective method' as preferred teaching method, 22.2% selected the 'communicative method'. According to the responses of the respondents, 27.8% selected 'practice of pronunciation' as preferred English learning activity whereas 25% 'discussions and debates'.

The responses of the participants indicated that utilitarian value was the main reason and motivation for learning English language. It is apparent from their responses that they know the significance of English language in their profession. That is the reason that majority of the respondents (almost 83.3%) have expressed that they want to learn the English language for fulfilling their

professional linguistics needs as students of medicine. As long as routine professional communication is concerned, the students of medicine usually use English language because it is official language. As a result, it becomes more essential for the students of medicine to learn English.

Integrative reasons for learning English language were reported by a large number of the respondents. They were of the view that they needed to learn English 'to broaden outlook and to acquire new ideas', to have access to international books and journals' and 'acquiring access to the information technology'.

A vast majority of the students of medicine and graduates of medicine were well aware with social status and acceptance attached to the English language. They thought that the English learning is essential to gain social prestige and acceptability. On the other hand, the professional trainers did not

consider 'social status and acceptance' a reason of any importance for learning the English language.

The students of medicines and graduates of medicine expressed that they needed to learn English language 'to gain success in future professional life'. It is inevitable for any students of medicine to have proficiency in English to progress in professional carrier.

The findings point out that all the respondents think that the students of medicine need to learn all the four skills of language (listening, speaking, reading and writing). Many other aspects of language (vocabulary, grammar, syntax, comprehension, pronunciation etc.) are also required to learn by the students of medicine for participating in their occupational settings. All the respondents have rated the speaking and writing skills more important as compared to the listening and reading skills. However, listening and reading skills are also significant for the students of medicine because these are used by them extensively during professional lives.

On the whole, it is clear from the responses of the students of medicines and graduates of medicine that listening does not cause difficulty to great extent for the students of medicine during professional settings. The trainers have also expressed same views with regard to difficulty in the listening skill. However, the students of medicine have reported difficulty in notes taking, decoding and comprehending the unfamiliar accent while listening. Ahmad (2005) has reported the same obstacles in case of the lawyers.

Listening is not a matter of concern with regard to difficulty for the respondents. A small number of the students of medicine and graduates of medicine have reported that at times reduction in reading speed may occur due to lack of vocabulary. They have pointed out problems while reading technical and foreign professional literature. The professional trainers have shown satisfaction on the reading skill of the students of medicine but they think that the students of medicine feel difficulty in comprehension due to complex expressions in the text.

The students of medicine, graduates of medicine and professional trainers have reported the speaking skill main problematic area. Almost all the respondents have pointed out the use of grammar, accuracy of vocabulary and pronunciation as main areas of concern. Consequently, speaking skill is needed to be considered and focused for reducing problems of the students of medicine.

Similarly, the students of medicine, graduates of medicine and professional trainers have identified a number of difficulties regarding the writing skill. The respondents reported problems related to the writing skill are shortage of accurate vocabulary, proper use of tenses, organization of ideas, lack of originality and poor spellings. According to the respondents, all these problems are due to lack of practice in professional writing during educational carrier. They think that general writing practiced during academic carrier is quite different from professional writing.

The findings of this subsidiary question show that vocabulary is the major area of concern for students of medicine. They agree with view of Jordan (1998:149) that learners usually want to increase their vocabulary because they think it as yardstick of improvement in language. As a result, vocabulary seems to be the biggest cause of concern for the students of medicine.

The students of medicine and graduates of medicine have expressed dissatisfaction regarding their professional language needs through the existing syllabi of English taught to them during academic carrier. Although the variations are found in their responses yet majority of the respondents have expressed the view that the current syllabi of English do not cater their professional language needs completely. The students of medicine have criticized the existing syllabi because it is heavily literature-based which cannot help them learning the professional language skills required during their occupational settings. Furthermore, they have expressed the dissatisfaction with the teaching of vocabulary and grammar. They believe that functional and pragmatic syllabus can be more useful than literary syllabus.

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The professional trainers expressed variant views about the capacity of existing English syllabi for catering the professional language needs of the students of medicine. A few of them have expressed satisfaction while others have shown dissatisfaction. The unsatisfied trainers have the view that current syllabi promote cramming and rote-learning. There is lack of pragmatic aspect with creativity in the existing syllabi.

It is proposed that the course must target the specific language needs of the students of medicine. The collaboration of different stakeholders is essential for devising an appropriate course. ESP practitioners, English language material designers, English language instructors, pharmaceutical managers, doctors, chemists, customers and other concerned members of students of medicine' discourse community must be consulted to design more effective ESP course.

The ESP courses designed for other fields (tourism, hotel management, business and science and technology) can be instrumental in designing ESP course for the students of medicine.

Variation in linguistic, cultural and educational background can be matter of concern. These diversities must be taken into account while conducting needs analysis.

It is revealed through findings of the study that there is a need to improve the students of medicine' proficiency in all the four English language skills (listening, speaking, reading and writing). Almost all the respondents think that productive skills (speaking and writing) are more important than receptive skills (listening and reading) required by the MRs in their occupational settings. There should be more focus on productive skills in content design for the students of medicine. However, as far as the English language needs of the students of medicine are concerned, the findings indicate marginal difference between productive and receptive skills. Therefore, ESP course contents for the students of medicine should take into account all four basic language skills due to their integrative roles.

The course contents should develop persuasive and communicative skills in the students of medicine so that they may take part confidently in the field related activities (e.g. general routine conversations, note taking skills etc.). Furthermore, this course should help the students of medicine in other related issues (e.g. report writing, participation in professional training courses, dealing with colleagues, letters, memos, applications, forms, meetings, phone conversation, e-mails, faxes and computer use etc.).

The vocabulary must be incorporated systematically in this course and must be taught in context and in meaning way. The practice and learning of vocabulary should include synonyms, antonyms, collocations, networks and semantic fields. It must also facilitate the students of medicine to devise their own techniques for inferring meaning from context and using dictionary.

The ESP course for the students of medicine should also include contents from general English. The authentic language teaching materials must be incorporated in this course. The selection of the material should be made with specific context in which these contents will be used. The students can easily adapt in accordance with the actual occupational settings. It would save language learners efforts and time. It will be strong motivating and interesting factor for the language learners and will produce better result if they find close connection between their general/professional needs and language course content materials. Consequently, it is proposed that subject specific/general language teaching material must be incorporated in the course instead of literature based content material.

This course should be taught through eclectic approach and it should not focus any specific approach of language teaching. But eclectic approach calls for hard work on the part of the teachers to prepare the lessons for fulfilling the demands of this approach. The language instructors will have to select and design authentic materials from various sources because no particular textbook is available which fulfills the specific occupational needs of the students of medicine.

Critical thinking and problem solving skills must be incorporated in the course because they are

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useful for promoting learner-centered environment and reducing the role of teachers as facilitator. In this way, these will make the learners independent and autonomous learners of English in the future.

Passive learning techniques are not in the best interest of the learners because these techniques encourage cramming and rote learning. Originality and creativity are proposed to be encouraged in this course for maximizing the active participation of the learners.

Multi-task activities in a variety of formats and approaches are highly recommended in this course because they might prove useful than lecture format. Communicative use of language in target communicative situations should be focused for structuring this ESP course. The cramming and memorization of grammar rules and language structures should not be given undue focus. The techniques for correct pronunciation and accent must be added to improve phonological deficiencies of the students of medicine. With these techniques, they would be able to participate in meetings, seminars and conferences. Moreover, it would be useful for them to understand and pronounce names of various diseases and medicines. This course should maintain an appropriate evaluation system to monitor the English language proficiency of the students of medicine both during course and at the end of course. This evaluation and testing system should be based on research related activities.

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