

AN ANALYSIS OF MEDICAL STUDENTS' ENGLISH LANGUAGE NEEDS

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ABSTRACT

AN ANALYSIS OF MEDICAL STUDENTS' ENGLISH LANGUAGE NEEDS

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This study aimed at finding out the academic and professional English language needs of medical students in an EFL context, from the perspectives of administrators, currently enrolled students, and academicians, in order to contribute to the process of English for medical purposes curriculum development.

Data were collected via questionnaires which were designed to compare the perceptions of the currently enrolled students and the academicians at the medical faculty of a Turkish-medium university. An interview was held with the Dean of the Medical Faculty to better obtain information about perceptions of the administration towards the English language needs of the medical students and their expectations from the English classes. The questionnaire data were analyzed quantitatively, and the interview data were analyzed qualitatively.

The main results of the study revealed that medical students studying in Turkish-medium contexts primarily need to improve their English reading skills in

order to do research for their problem-based learning classes. In addition to English reading skills, medical students regard speaking skills and an interactive way of learning English in groups as very important. This finding indicates a changing trend in the students' perceptions of their foreign language needs in comparison with the previous needs analyses of English language needs in medical contexts. The overall findings of this study revealed that there is a need to increase the class hours, provide technological equipment, and appoint trained instructors for the efficient teaching of medical English.

Key terms: Needs analysis, perception, English for medical purposes

ÖZET

TIP ÖĞRENCİLERİNİN İNGİLİZCE DİL GEREKSİNİMLERİNİN ANALİZİ

Çağla Taşçı

Yüksek Lisans, Yabancı Dil Olarak İngilizce Öğretimi Bölümü

Tez yöneticisi: Asst. Prof. Dr. Julie Mathews-Aydınlı

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Bu çalışma İngilizce'nin yabancı dil olarak öğretildiği bir üniversitede, tıbbi amaçlı İngilizce öğretimi müfredatının geliştirilmesi sürecine katkıda bulunmak amacıyla, tıp fakültesindeki öğrencilerin akademik ve mesleki İngilizce dil gereksinimlerini, fakülte idaresinin, kayıtlı bulunan öğrencilerin ve akademisyenlerin perspektifinden incelemeyi amaçlamıştır.

Bu çalışma için, kayıtlı halde bulunan öğrencilerin ve tıp fakültesindeki akademisyenlerin görüşlerini kıyaslamak için hazırlanan anketler aracılığıyla veri toplanmıştır. Tıp Fakültesi yönetimin tıp öğrencilerinin İngilizce dil gereksinimlerine yönelik görüşlerini ve İngilizce derslerinden beklentilerini öğrenmek amacıyla dekanla da bir görüşme yapılmıştır. Anketler nicel, görüşme ise nitel yöntemlerle analiz edilmiştir.

Bu çalışmanın en önemli sonucu tıp öğrencilerinin Türkçe eğitim veren bir okulda, probleme dayalı öğrenme dersleri için araştırma yapmak amacıyla İngilizce

okuma becerilerini geliřtirmelerinin gerekli olduėudur. Okuma becerilerinin yanı sıra, tıp öğrencileri konuşma becerilerini ve İngilizce'yi grup çalışmaları içinde interaktif biçimde öğrenmeyi oldukça önemli bulmuşlardır. Bu sonuç, tıp fakültelerinde önceki yapılan dil gereksinimlerinin analizleriyle kıyaslandığında öğrencilerin yabancı dil gereksinimlerini algılayışlarında deėişen bir trendi göstermektedir.

Bu çalışmanın genel sonuçları, tıbbi İngilizce'nin etkin bir şekilde öğretimi için ders saatlerinin arttırılmasının, teknolojik ekipmanlar temin edilmesinin ve eğitimli okutmanların görevlendirilmesinin gerekli olduğunu ortaya çıkarmıştır.

Anahtar Kelimeler: İhtiyaç analizi, algı, tıbbi amaçlı İngilizce

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CHAPTER I - INTRODUCTION

Introduction

Designing a curriculum which will match the needs of the learners and help them meet the goals of a language course can best be achieved by starting with a comprehensive needs analysis. Needs analyses explore what will motivate learners to acquire language in the most efficient way. Needs analyses play a particularly crucial role in English for Specific Purposes curriculum development.

The purpose of this study is to identify the specific academic English language needs of the students at Pamukkale University Medical Faculty, which is a Turkish medium institution. In order to design an appropriate EFL curriculum for these students, it is important to identify their needs by considering the points of view of the administrators, enrolled students, doctors, and content-area instructors. The students' needs that are not being met will be identified by making comparisons among the perceptions of all the parties. The results of this study can be crucial for designing the curriculum and developing materials not only for the medical students and instructors at PAU but also for other ESP/EAP course learners and instructors in EFL medical contexts worldwide.

Background of the Study

English for Specific Purposes (ESP) courses are language programs which are designed for people who are learning English with an identifiable purpose and clearly specifiable need (Dudley-Evans & St Johns; Johns & Price Machado, 2001; Widdowson, 1983). As for the origins of ESP, Hutchinson and Waters (1987) point out that an increase in scientific, technical and economic activities after the Second

World War and the Oil Crisis of the early 1970s led many people to learn English for specific reasons rather than simply for pleasure or prestige. English became “subject to the wishes, needs and demands of people other than language teachers” (p. 7).

Today, many people from all walks of life wanting to learn English are conscious of its importance and aware of their specific needs for their occupational or academic fields.

The concern to make language courses more relevant to the learners’ needs paved the way for the emergence of English for Specific Purposes (ESP) (Richards, 2001). Hutchinson and Waters (1987) define ESP as an approach in which all decisions as to a course’s content and method are based on learners’ reasons for learning. Thus, an important principle of ESP is that the syllabus of an ESP course specifically reflects the goals and needs of learners rather than the structure of general English: “Different types of students have different language needs and what they are taught should be restricted to what they need” (Richards, 2001, p.32). An ESP approach, therefore, starts with an analysis of learners’ needs.

Dudley-Evans and St. John (1998) describe ESP as having been divided into two main areas: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). The demand for medical English at university level is an example of ESP. They also identify English for Medical Purposes (EMP). This category can be classified both as EAP and EOP, distinguishing between studying the language of medicine for academic purposes (as designed for medical students) and studying it for occupational purposes (as designed for practicing doctors).

According to Gyls and Wedding (1983, cited in Yang, 2005), medical terminology is a specific terminology used for the purpose of efficient

communication in the health care field. The language of medicine and health care is quite unique. One can only understand this specific jargon by spending time studying it in meaningful and contextual ways. Identifying and understanding the specifics of this terminology and the ways it will be used in a particular context requires a needs analysis.

Dudley-Evans and St. John (1998) regard needs analysis as the cornerstone of ESP and the process of establishing the *what* and *how* of a course. Graves (2000) defines a needs analysis as a systematic and ongoing process of gathering information about students' needs and preferences, interpreting the information and then making course decisions in order to meet those needs. She maintains that every curriculum design should begin by conducting a needs assessment; and this step is followed by materials selection, syllabus design and assessment of students' performances and overall effectiveness of the program. Similarly, Brown (1995, p. 35) states that needs analysis (also called needs assessment) involves activities and procedures conducted to gather necessary information for designing an effective curriculum which will meet the needs of the particular group of students. He further points out that needs analyses involve gathering information about how much the students already know and what they still need to learn. In a needs analysis, the topics, language uses and skills considered most important for the target group to learn are investigated. Nunan (1988) states that the first step in conducting a needs analysis is to decide on what data need to be collected, when they should be collected, by whom, through what means and for what purposes. The main data collection methods for needs analysis are questionnaires, discussions, interviews, observations, and assessments.

A variety of needs analyses have been conducted worldwide and in Turkey to explore learners' specific needs. They differ from each other in terms of the educational contexts in which they were conducted. For example, Baştürkmen (1998) carried out a needs analysis in the English language unit at the College of Petroleum and Engineering of Kuwait University, which is an English medium context, whereas Arık (2002), and Çelik (2003) conducted their studies at Niğde University, which is a Turkish medium context. Their studies also differ from each other in terms of the participants and types of needs investigated. In Arık's (2002) study there was only one group of participants, the discipline teachers, whereas in Çelik's (2003) study there were four groups, the content-area instructors, enrolled students, former students and employers. Lepetit and Cichocki (2002) conducted their study with 165 students selected randomly from the Department of Public Health Sciences at Clemson University. As for the types of needs, Çelik looked into both the students' occupational and academic needs, whereas Arık investigated only academic English needs. Şahbaz (2005) explored the academic reading requirements of subject area instructors in an EFL context, while Casanave and Hubbard (1992) and Jenkins, Jordan and Weiland (1993) investigated academic writing requirements. Kim (2006) particularly investigated the academic oral communication needs of East Asian international graduate students in non-science and non-engineering departments. Other specific departments investigated have included tourism (Boran, 1994), and law (Kavaliauskiene & Uzpaliene, 2003).

In the medical context there have been few published reports of needs analyses, either in the world or in Turkey. Chia, Johnson, Chia, and Olive (1998) investigated the perceptions of English needs in a medical context in Taiwan. In

Turkey, Akgül (1991) conducted a needs analysis of medical students at ESP classes at Erciyes University Medical Faculty, which is an English medium medical faculty, and Alagözlü (1994) investigated the English language needs of fourth year medical students at the Medical Faculty of Cumhuriyet University. Boztaş (1988) investigated the medical students' needs at Hacettepe University and Elkılıç (1994) investigated the English language needs of the students of veterinary medicine at Selçuk University. The results of these studies indicated that English was perceived as important in students' academic and future professions. The results also suggest that the receptive skills of reading and listening were considered the most important skills and that materials should be revised for medical students' specific language needs. In Alagözlü's study, translation was also perceived as an important skill. These studies pointed out the need for appropriate curriculum design matching the students' ELT and ESP needs, including materials relevant to the medical field.

However, conclusions can not necessarily be drawn from the above mentioned studies for the medical students attending Pamukkale University in Denizli, which is a Turkish medium context, without conducting a needs analysis of these students. Furthermore, the studies conducted in Turkey are quite old, and realistic conclusions can not be drawn from them for the students at PU. So, a comprehensive needs analysis from the perspectives of administrators, enrolled students, doctors, and content area instructors was conducted for the purpose of this study.

Statement of the Problem

There have been many needs analyses carried out to investigate the language requirements of different groups of students worldwide (e.g. Bastürkmen, 1998;

Kavaliauskinė & Užpalinė, 2003; Kim 2006) and in Turkey, (Arık, 2002; Bada & Okan, 2000; Çelik, 2000; Güler, 2004; Gündüz, 1999; Şahbaz, 2005) but only a few on medical students worldwide (Chia, et al. 1998) and in Turkey, (Akgül, 1991; Alagözlü, 1994; Boztaş, 1988; Elkılıç, 1994.) Even these studies, however, can not necessarily be used to understand the needs of the medical students at Pamukkale University in Denizli because every local context is unique. Programs may differ in terms of, for example, medium of instruction, curriculum goals, or types of students. This study, therefore will explore the unique English language needs and expectations of the students at PAU's medical faculty.

Pamukkale University (PAU) is a Turkish medium university where there has been a one-year preparatory class offered at the Faculty of Medicine since 1999 and at the Physiotherapy Department since 2006. The administration established preparatory classes considering that students need some degree of English. In the first three years after the preparatory class, English instruction is provided, but the learners take only two hours of English instruction weekly and do not attend any English classes in their final three years. There are neither effective materials nor qualified ESP teachers to meet their specific language needs. The limits of the English program have sometimes led to the frustration of the instructors and demotivation of the students at the Faculty of the Medicine.

Therefore, curriculum renewal beginning with a needs analysis is necessary to make use of the given limited class hours in the most efficient way and to meet these medical students' specific English language needs. This needs analysis will be conducted to identify the ways in which the English courses within the present

conditions can be matched to the students' perceived as well as potential and unrecognized future needs.

Research Questions

This study aimed to investigate the following research questions:

1. What do medical students in an EFL context perceive as their academic English needs?
2. What do the academicians perceive as these students' English language needs?
3. What do the administrators perceive as these students' academic English needs?

Significance of the Study

The results of the study can provide a useful model for similar needs analyses of EFL programs for distinct groups of students, such as those studying medicine. It may also be useful for identifying the English academic needs of medical students in other universities either in Turkey or in the world, thus making an important contribution to compiling a database of medical students' academic English needs. At the local level, a needs analysis study which will explore the academic English requirements of the medical students at PAU through the perspectives of administrators, content area instructors, doctors and students may be helpful in determining how to make the most effective use of the students' limited class time by defining their specific needs and specific skills and activities, and thus serve as a bridge for achieving their learning objectives. It may also encourage learners to plan their learning by setting more realistic aims. The results will allow the instructors and curriculum developers to create an effective curriculum, syllabi and materials in the context of Pamukkale University.

Conclusion

In this chapter, a brief summary of issues related to English for specific purposes, English for medical purposes and needs assessment was given. The statement of the problem, the significance of the study, and research questions were presented as well. The second chapter provides a review of the literature on ESP, EMP, and needs analysis. In the third chapter, the participants, instruments, and procedures used to collect and analyze data in the current study are presented. In the fourth chapter, the data analysis and findings are presented. In the last chapter, the main results with respect to research questions and the discussion of the results, pedagogical recommendations, limitations of the study, and suggestions for further research are stated.

CHAPTER II - REVIEW OF THE LITERATURE

Introduction

The purpose of this study was to conduct a needs analysis at the Medical Faculty of Pamukkale University in order to identify the medical students' academic and professional English language needs. In this chapter the literature will be reviewed in terms of English for Specific Purposes (ESP), its sub-division English for Medical Purposes (EMP), and needs analysis. The first section presents definitions and purposes of ESP, similarities and differences between ESP and English for general purposes, and characteristics of ESP, and is followed by the development of ESP courses and ESP's sub-categories. The second section looks specifically at EMP, including the importance of EMP, the field of EMP, medical English and its characteristics, primary research studies, and ways of teaching EMP. The third section explains the importance of needs analysis and its purposes, the definitions of 'needs' and the methodology of conducting needs analysis. This section concludes with examples of needs analysis studies in medical contexts, both from Turkey and abroad.

English for Specific Purposes

Over the years, English for Specific Purposes (ESP) has emerged as a sub-division of English language teaching to speakers of other languages. ESP is seen as an approach which gives importance to the learners' needs, attempting to provide them with the language they need for their academic and occupational requirements. Hutchinson and Waters (1987) point out that ESP courses are triggered by the question 'why do learners need to learn English?', leading to the answer that

learners' specific reasons for learning are what direct the decisions to be taken for ESP language teaching. Orr (2001) has said that ESP is "English language instruction designed to meet the specific learning needs of a specific learner or group of learners within a specific time frame for which instruction in general English will not suffice" (p. 207). Mackay and Mountford (1978) acknowledge ESP's tendency to evolve around work-related English needs with their definition of ESP as the teaching of English for "utilitarian purposes", referring to some occupational purposes. Similarly, Robinson (1980, cited in Widdowson, 1983) states "... an ESP course is purposeful and is aimed at the successful performance of occupational or educational roles." (p.15). While general English learners study English for language mastery itself, or to pass exams if it is obligatory, ESP learners study English to carry out a particular role (Richards, 2001). This goal, together with the movement towards communicative teaching in recent decades, means that ESP practitioners try to develop language courses for people who need the communicative ability of using English for specific purposes in particular target situations (Brumfit 1980; Widdowson, 1983).

While some researchers clarify the distinction between the methodology of ESP and the methodology of English for General Purposes (EGP) by putting the emphasis on the context based language requirements of ESP learners, others do not. For example, Hutchinson and Waters propose that ESP methodology is not necessarily that different from general English teaching. In their analogy of ESP as a tree, they root all the branches of language on teaching communication and learning, and place the broad concept of ELT as the trunk. On the other hand, Widdowson (1983) proposes that ESP not only analyses learners' needs and aims but also designs

objectives and methodology to fulfill them. ESP is to him a training operation trying to provide learners with restricted competence to meet requirements for carrying out clearly defined tasks in their academic and occupational fields. EGP, however, is an educational operation which tries to provide learners with a general capacity “to cope with undefined eventualities in the future” (p. 6). He adds that training refers to the purpose of instruction and it does not mean that learners will not get educational benefit from them or will not develop communicative capacity. Similarly, Dudley-Evans and St. John (1998) believe that ESP usually has a different methodology from that of general English. As the learners bring with them to the ESP classroom their specialist knowledge and the cognitive and learning processes that they are accustomed to in their specialist fields, there should be a distinguishable ESP methodology. Its methodology and research reflects the research from various disciplines as well as applied linguistics. “This openness to the insights of other disciplines is a key distinguishing feature of ESP” (p. 2). The key issue here is the ESP instructors’ being adaptable and flexible to adjust their methodology to the learners’ changing needs.

The other key issues commonly addressed in ESP program planning are needs analysis, materials selection, teaching, and evaluation. Dudley-Evans and St. John (1998) regard the first stage in which the specific needs of the learners are analyzed, as “the cornerstone of ESP courses” (p.122). Needs analysis is seen as a contribution of ESP to English language teaching, as ESP practitioners have played key roles in developing new techniques to identify tasks the learners have to perform in their target situations and to analyze the discourse of the language and in determining students’ learning strategies (Johns, 1991). Needs analyses are generally

conducted by gathering information from learners or informed sources through various methods such as questionnaires, interviews, observations, meetings and so on, interpreting the results and then acting on these interpretations when making course decisions.

Johns (1991) argues that the concept of materials design can also be regarded as a contribution of ESP, as most of the creative work in developing materials for English language teaching has come from ESP practitioners who are concerned with finding appropriate discourse and activities for learners with specific needs. The key point in materials design is matching teaching materials to learners' needs. It is mostly achieved using authentic materials from learners' target situations as they may be more motivational for the students in order to perform effectively in their target situations. These materials can be real documents, texts, video recordings of real dialogues, and other various realias which learners will be using in their real life situations. Dudley Evans and St. John (1998) also recommend that authentic tasks, for example, real-life project based tasks related to the learners' fields of study, should be used in order to prepare them for their actual professional applications. Authenticity of materials and related tasks are both regarded as important as they are the bridge for language learners between the classroom language learning activities and real world language use (Barnard & Zemach, 2003; Dudley-Evans & St. John, 1998; Guariento & Morley, 2001).

Still on the issue of materials, in addition to the issue of authenticity, there seems to be a consensus in the literature on the connection between ESP teaching and the use of technologies, with the internet in particular serving as an inevitable vehicle, in terms of the availability of updated information and authentic texts it

provides (Barnard & Zemach, 2003; Belcher, 2004; Dudley-Evans & St. Johns, 1998). In relation to the usage of the internet, Dudley- Evans and St. John (1998) suggest a different aspect of usage of it, internet as course delivery, recommending that a language school or language course can place an ESP course on the internet. Learners, then, can follow courses on their own, in their own time as well as in pairs or in groups, with or without a tutor. They further argue that where students are involved in project work or case studies, the internet becomes a very valuable source for ESP classes.

In terms of teaching, in ESP courses, teaching aims to equip learners with competency in English, as well as additional knowledge for specialized contexts which are or will be required from them in their real life. ESP teachers may face challenges related to the ESP content (Johns & Price-Machado, 2001). ESP specialists may therefore feel the need to work cooperatively with subject specialists who share responsibility for the learners' work or study. Noteworthy is Hutchinson and Waters' (1987) comment that ESP teachers do not necessarily need to be knowledgeable in the specialist subject, but they need to have a positive attitude toward the content of the subject, knowledge of the fundamental principles of the subject area, and an awareness of how much they already know. They also add that in order to achieve meaningful communication in the class there should be a shared knowledge and interest between teacher and learner. So, it is necessary that ESP teachers should be open-minded and informed about the subject matter of ESP materials.

As the final stage of ESP curriculum design, ESP instructors need to design their own assessment criteria and tests appropriate to the instructional context (Johns

& Price-Machado, 2001). Douglas (2000) points out that test task and content should be authentic, representing tasks of the target situation. So, the analysis of the target language use situation is also important in designing ESP tests.

After explaining the key points in curricular decisions of ESP courses, it seems necessary to outline the key characteristics of ESP courses. While it is possible to identify common points about ESP in the literature, for example, its being goal-oriented, having a learner-centered philosophy, and aiming to meet context-specific language requirements (Dudley Evans & St. John, 1998; Robinson, 1991, cited in Dudley Evans & St. John; Strevens, 1988), perhaps the most useful description of the characteristics of ESP comes from Dudley Evans & St. John (1998) who distinguish between ESP's absolute and variable characteristics. The notion of 'absolute' here addresses the common features of all ESP contexts, while the notion of 'variable' explains the situational features of ESP contexts. They define these characteristics as follows:

1. Absolute characteristics:

- ESP is defined to meet the specific needs of the learner;
- ESP makes use of the methodology and activities of the disciplines it serves;
- ESP is centered on the language (grammar, lexis, register), skills, discourse and genres appropriate to these activities.

2. Variable characteristics:

- ESP *may be* related to or designed for specific disciplines;
- ESP *may use*, in specific teaching situations, a different methodology from that of general English.

- *ESP is likely to be* designed for adult learners as well as learners at secondary school level;
- *ESP is generally* designed for intermediate or advanced students, but it can also be used with beginners.

Overall, ESP may seem to be more motivating than general English, using the time and effort of learners with specific purposes efficiently, designing matching materials and methodology, and also focusing on the language features that address the learners' needs in the target situation.

Background of ESP Research and Course Design

The origins of the ESP movement can be traced back to economic activities taking place in the 1950s and 1960s. English became a lingua franca, and became increasingly more important in the post-war years and with international developments and exchanges in technology and commerce. The need for professional and academic purposes English courses to meet the changing demands of the real world became more obvious in the 1960's and with an even more accelerating pace in the 1970s (Barnard & Zemach, 2003; Dudley-Evans & St. Johns, 1998; Hutchinson & Waters, 1987). Hutchinson and Waters (1987) explain five main currents in ESP which have influenced developments in the field of ESP in the following stages: (a) the concept of specialized language, (b) rhetorical and discourse analysis, (c) target situation analysis (d) skills and strategies, and (e) a learning-centered approach.

The first stage, the concept of specialized language, which started in the 1960s and early 1970s, focused on identifying grammatical and lexical features in the registers of specific disciplines in order to make the contents of the courses more

relevant to learners' needs. Hutchinson and Waters (1987) state that the aim was to design a syllabus which would consider the language forms students would use in their special fields. At the rhetorical and discourse analysis stage, the focus of attention shifted from sentence level to the organizational patterns in texts, that is, to understanding how sentences were combined as meaningful units. For an ESP course, these patterns would be used to form a syllabus. The third stage, the target situation analysis, also known as needs analysis, seeks to identify learners' needs in the targeted work or study area and to design syllabi considering the linguistic features of that situation. The fourth stage, skills and strategies, dealt with the language skills through which the learners would be able to effectively carry out the requirements of the target situation. At this fourth stage, the attempt is not just to consider the language itself but the thinking processes that emphasize language use.

The final stage, adopting a learning-centered approach, considered the learners, their attitudes to learning, and their motivations, as different students learn in different ways, and attempted to meet learner needs at all stages of course design (Hutchinson & Waters, 1987). Designing courses that are relevant to learners' needs and interests is very important. Hutchinson and Waters (1987) make a distinction between learner-centered and learning centered. According to them, 'learner centered' infers that "learning is totally determined by the learner." (p. 71). On the other hand, 'learning centered' is based on the idea that learning is a process of negotiation between individuals and society, rather than a product in the learners' minds. It includes teaching, syllabus, materials and so on. They advocate a learning centered approach which aims to enhance the potential of the learning situation, as

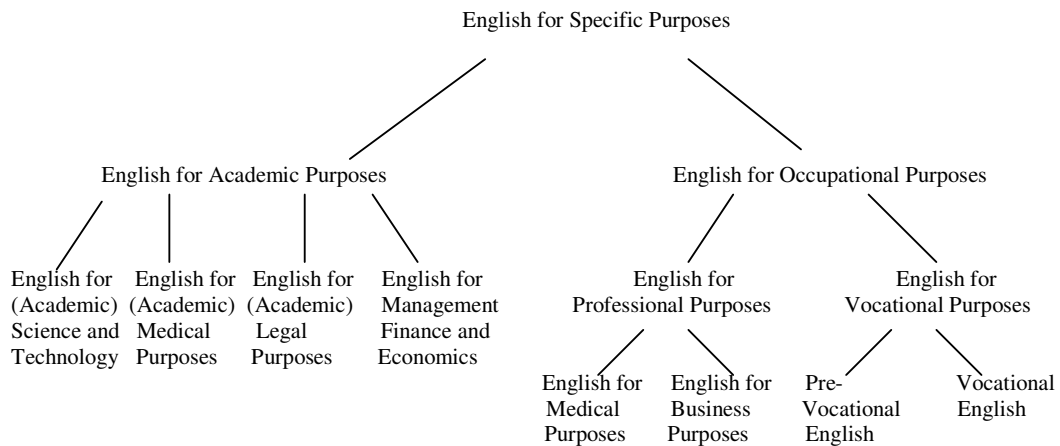
they assume that the learner is not the only factor to consider in the learning situation.

Types of ESP

Many researchers, including Strevens (1988), Robinson (1991, cited in Dudley-Evans and St. Johns, 1998), and Dudley-Evans and St. Johns (1998), divide ESP into two main branches: English for Occupational Purposes (EOP) and English for Academic Purposes (EAP). Hutchinson and Waters (1987), in their ELT tree, also divide ESP according to whether the learners need English for academic reasons or for occupational reasons. However, they point out that the distinction between EAP and EOP is not a definite distinction as people can work and study simultaneously. They go on to divide ESP according to the learners' specialized area: EST (English for Science and Technology, EBE (English for Business and Economics) and ESS (English for the Social Sciences).

Similarly, Dudley-Evans and St. Johns (1998) classify ESP as EAP, EOP, EST and EBP (English for Business Purposes). In their tree diagram, given below, they show the categories and subcategories of ESP. It is important to note that English for Medical Purposes is categorized both as EAP and EOP. Medical students' need to read textbooks and articles and write essays can be classified as EAP needs. On the other hand, practicing doctors' requirements of reading articles, preparing papers, presenting at conferences, and, if working in an English speaking country, interacting with patients, in English can be classified as EOP needs (Dudley-Evans & St. Johns, 1998).

Figure 1 - Branches of ESP



Note: Dudley-Evans & St. John, 1997 (p. 7)

English for Medical Purposes

The term *lingua-franca* has been used to explain the role of English as an instrument of communication worldwide. Today, English is the “premier research language” (Swales, 2004, p. 33). This is particularly true when we look at the language of medicine. Maher (1986a) analyzed the computerized database, MEDLINE Index Medicus, which includes about one million articles from biomedical journals throughout the world, both to investigate language data from 1966 until 1983, and to evaluate the extent that English is used as an international language of medicine as *lingua-franca*. It was seen that the use of English for medical purposes has steadily been increasing at both international and intranational levels. Writing over twenty years ago, Maher noted that increasingly more articles were being written in English and predicted that this was likely to increase in the future. He also pointed out that even in countries where English was not the mother tongue

and journals of biomedicine were often published in English. He emphasized that as early as 1980, 72 percent of the articles listed in the Index Medicus were published in English and gave the example of Japan, where 33% of medical articles at the time were written in English. He also examined the international conferences listed in the Journal of the American Medical Association (JAMA) over a twelve-month period and found that all 373 meetings but one specified English as the official language. Finally, Mayer also presented a field investigation conducted at four medical sites in Japan to survey the attitudes of practicing doctors towards English. Questionnaires revealed that 96.7% of the doctors reported that they read medical books/articles in English and a great majority of the participants regard such literature as important and essential. As a result of his research, Maher strongly concluded that English has been adopted as the intranational communication vehicle of health care personnel.

Recently, a similar study came from Benfield and Howard (2000) who again analyzed MEDLINE. They found that English use in publications increased from 72.2% to 88.6% between 1980-1996, while they observed that the second language of research, German, had declined from 5.8% to 2.2%. Other studies observed the growth in English usage in particular countries, such as in the Swedish medical context (Gunnarsson, 1998 cited in Swales, 2004) and in the Netherlands (Vanderbroucke, 1989 cited in Swales, 2004), where in both cases medical scientists increasingly report preferring to use English.

These descriptive studies explaining the spread of English as an international medium of communication indicate the need to consider special language education for medical learners. In this respect, the practitioners of English for medical purposes seek to design courses and materials to address the practical needs of these learners.

English for Medical Purposes (EMP) refers to the teaching of English for health care personnel like doctors, and nurses (Maher, 1986b). As in other ESP courses, in EMP, learners study English with an identifiable goal, such as efficient performance at work and effective medical training. Maher states that an EMP course is designed to meet the specific English language needs of medical learners, and therefore deals with the themes and topics related to the medical field. It may focus on the restricted range of skills which are required by the medical learner, such as writing medical papers or preparing talks for a medical meeting.

In order to analyze the specific needs of medical learners, it is important first to explain some characteristics of this special jargon and the restricted language of health care personnel. English was originally a Germanic language, but was influenced by Latin to a great extent (Lanza, 2005). Analysis of medical texts shows that they have a great quantity of multilingual vocabulary, i.e. words, some of which are terms, found in several languages in phonetically, grammatically and semantically similar forms (Laar, 1998). Faulseit (1975, cited in Laar, 1998) points out that the most typical characteristic of medical language is that most of its multilingual vocabulary consists of terms of Latin or Greek origin. Many words of Latin origin have entered English at different phases in the development of vocabulary, and at different levels of assimilation into the English language (Pennanen 1971, cited in Laar, 1998). Words entering English from French or directly borrowed from Latin belong to the general vocabulary of English, whereas the words of multilingual vocabulary are often derivatives from Latin stems. Some of these words also adopted suffixes as well as a few stems of Greek origin (Laar, 1998).

In medical English register some words which are used in daily language are represented by different terminology. Delivery (for birth), hemorrhage (for bleed), uterus (for womb), vertigo (for dizziness) and syncope (for fainting) are some of the examples given by Erten (2003).

Erten (2003) states some special abbreviations are used for some terms such as ABS (Acute Brain Syndrome) and IV (intravenous). She further points out that some abbreviations represent more than one meaning, for example CT is used for cellular therapy, cerebral tumor, clotting time, connective tissue and so on, so their representations can be inferred from the context. Similarly, Christy (1979, cited in Maher, 1986b) notes that doctors, in their daily conversations, frequently use abbreviations like DOA (dead on arrival) and DKA (diabetic ketoacidosis).

As for the morphological characteristics of medical jargon, Bakey (1966, cited in Maher 1986b) points out that there is a tendency to turn nouns into verbs; for example: adrenalecticize (from adrenalectomy), laporatomize (from laporatomy), thoracotomize (from thoracotomy), hospitalize (from hospital) and so on. Other examples of morphological particularities are coinage and syllabic contraction such as 'urinalysis' which is used instead of urinoanalysis, or 'contraception' instead of contraconception (Johnson, 1980 cited in Maher, 1986b).

In terms of the formation of the terms, Yang (2005) states that medical terminology has two characteristics:

1. Apart from the one-syllable words, most medical words consist of roots and affixes. The affixes can be classified into prefix and suffix. Any single medical term has at least one root determining its meaning and one or more

prefixes and or suffixes which alter the part of speech or the meaning of the root.

2. Medical vocabulary is not a closed rule-governed system, but an open system consisting of a large number of low-frequency words and newly created words.

Similarly Erten (2003) points to term formation, stressing that the meaning of the terms can be predictable from their particles, which are the roots, prefixes and suffixes. She gives examples of the frequently encountered roots from Greek origin as follows:

Cardi : heart,	Cephal: head
Hepat: liver,	Neph: kidney

Also, roots from Latin origin are as follows:

Cerv: related to the neck	Cerebro: related to the brain.
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Boztaş (1988) classifies the commonly used prefixes as *prefixes related to time and place*:

e. g. ante -before; forward	antenatal-occurring before birth
	anteflexion-abnormal bending forward

- *prefixes related to size*:

e.g. olig (o) –small; few	oligurian-small production of urine
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- *prefixes relating to type*:

e.g. andro –male; man; masculine	androgen-male sex hormone
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- *prefixes denoting direction*:

e.g. ad- toward; increase	adduct-move toward the midline
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of initials, long sequences of nouns used as adjectives, stereotyped sentence structures and hackneyed beginnings” (p. 119).

Teaching Medical English

In order to help non-native English speaking medical students acquire English medical jargon, information about medical register and discourse should be combined with the pedagogical skills of a language teacher. Maher (1986a) reminds us that EMP courses--like all kinds of ESP--should be tailor-made to the learners' purposes and needs, that is by first thinking about who these medical learners are and what their purposes are. He also points out the need for a specific syllabus, which will enhance the communicative effectiveness of an English language course. In order to design such specific courses for medical learners, several examples of courses, materials and strategies have been discussed in the literature. For example, attempts to develop courses using instructional methodologies such as content-based learning and problem-based learning have been made. In addition, the use of technological equipment has been regarded as an important aspect in EMP courses to bring real life communication into the classroom. Various projects have also been undertaken to explore different ways of teaching medical terminology. Structural and traditional methods such as teaching term formation of medical terminology as a vocabulary teaching strategy and grammar translation have also been found in the literature.

To begin with, in content-based classes, in general, students practice English language skills while they are studying one subject area. In these classes, learners use language to do real tasks in authentic contexts. Bailey (2000, chap. 10) describes a course organized through the concept of health to enhance the students' learning in

an ESL context. The course starts with journalistic writing, making use of *Time* magazine, and then reading books on health-related topics, academic texts and autobiographies. Finally, dramas are performed after watching movies about medical issues. The writer concludes that by the end of the semester learners made great progress in learning English as they found the course with this instruction method very authentic and useful. According to Bailey their communicative skills improved with the interaction created through discussing controversial issues in the field of health. Bailey concludes that the learners experienced the pleasure of learning in groups while focusing on real and engaging health issues.

Another approach which has been suggested in the literature in the teaching of medical English is problem-based learning. As it is an approach mainly applied in medical education (Connelly & Seneque, 1999; Huey, 2001; Maxwell, Bellisimo & Mergendoller, 2001; Norman & Schmidt, 2000) and in order to better understand its application in EAP courses of medical faculties, it is necessary to understand the reasons for using it medical teaching, and its common application procedures and aims. In terms of its origins, Maxwell et al. (2001) state that as the conditions of medical practice changed during the 1960s and 1970s, medical educators questioned the ability of traditional medical education to prepare students for professional life. In response, faculty at a number of medical schools introduced 'Problem-Based Learning' to promote student-centered learning in a multidisciplinary framework, an approach that was believed to promote lifelong learning in professional practice. In this approach, students work in groups discussing a problem, then students do research for the problem situation, and try to come up with reasonable solutions to that problem, suggesting their solutions and discussing whether they are appropriate

to the situations they discussed. Then students evaluate this learning process and their contribution to the group (Maudsley, 1999, cited in Wood & Head, 2004 and Maxwell et. al, 2001). Huey (2001) describes the aims of PBL as better acquisition and school integration of scientific and clinical knowledge, improved clinical thinking and other skills, and more effective life-long learning skill.

This PBL approach has been widely discussed in the literature. Harland (2003) suggested that a PBL approach is embedded in Vygotsky's zone of proximal development theory, explaining PBL from a socio-constructivist perspective. Albanese and Mitchell (1993, cited in Huey, 2001) provide a literature review for its theoretical bases, implementation issues and outcomes. Some others have discussed the differences found between PBL and non-PBL students, indicating the potential benefits of PBL for medical students in general (Antepohl & Herzig, 1999; Connely & Seneque, 1999; Hmelo, 1998; Shanley, 2007; Thomas, 1997, cited in Huey, 2001), in the education of clinical psychologists (Huey, 2001), zoology students (Harland, 1998, 2002), and even high school economics students (Maxwell et. al., 2001).

Others have discussed how PBL can be applied to language learning. It is seen as a useful technique for teaching English for academic purposes for medical students, as it is a context-based, cooperative and student-centered approach (Wood & Head, 2004, and Kimball, 1998). Wood & Head (2004) discussed the possible applications of it in the EAP classes of medical faculties. In their web-based course, the researchers conducted a case study using a problem-based learning (PBL) approach to teach EAP classes at the University of Brunei Darussalam (UBD) and obtained positive feedback both from the students and instructors. The major goal of

the course they designed was to encourage students to study medical topics using English communicatively. In this approach students in groups generate a problem, which is a disease, and other groups discuss it and try to come up with solutions. The researchers claim that in this approach the tasks of the students derive from the general problem to be solved rather than being generated by the teacher, and are thus a simulation of what happens in the medical field. They further maintain that this approach responds directly to these students' needs. Kimball (1998) also proposed PBL tasks as a useful tool for the simulation of medical target settings and also supports teaching through the web. In his course design, teachers structure lessons in the context of medical concepts and case studies and problem based tasks, which enable the students to contextualize medical concepts, simulating real world clinical thinking. He concluded that the syllabus designed with problem-solving tasks using internet web pages not only provided students with authentic sources but also reflected the foreign language needs of the medical students, as the concepts about new findings, and the treatments are in English, and the medical resources the students need to use are all written in English. These studies indicate that through the web and problem-based, learner centered activities, learners were able to experience real world discourse which other printed materials could not have reflected so efficiently.

Along with the use of the internet, video cameras have proved invaluable for contextualized learning in EMP curricula (Belcher, 2004). Some researchers have tried to bring real life communication into the classroom medium using video tapes. For example, a study to design a course, using authentic videotaped communication data for medical students at the University of Hong Kong was conducted by Shi,

Corcos and Storey (2001) using authentic videotaped communication data. The researchers used them to assess the difficulties learners face when making diagnostic hypotheses with doctors and to identify the discourse of diagnostic linguistic skills students needed, in order to achieve various cognitive objectives. They used videotaped ward teaching sessions over three months at two hospitals, along with teaching tasks, to raise students' awareness of some of the discourse and to improve students' performance through practice. In the study they tried to analyze and use performance data as teaching material in the classroom in order to meet the special needs of the medical students. Shi et al. concluded that the use of videotaped data is not only useful for the design of an EMP course but also useful as teaching materials by involving the students in the process of curriculum design, thereby enhancing the students' motivation.

There are a few other studies conducted to develop courses for medical students (Eggly, 2002, cited in Belcher, 2004; Farnill, Todisco & Hayes, 1997 cited in Shi et al., 2001), overseas doctors (Allright & Allright, 1977, cited in Maher, 1986; Candlin, Bruton, Leather & Woods, 1981, cited in Shi et al., 2001), nurses (Hussin 2002, cited in Belcher, 2004) and pharmacy students (Filice & Sturino, 2002; Graham & Beardsley, 1986, cited in Shi et al., 2001) using authentic communication data via technologies. For example, Allwright and Allwright's (1977) course design was based on professional case conference recordings, Candlin et al. and Farnill et al. used audio and video recordings of doctor-patient communication, and Graham and Beardsley used videotapes developed by pharmaceutical companies for pharmacists. Filice and Sturino (2002) developed a module using a video called "Coronary Artery Disease at Time of Diagnosis" as well

as its workbook, which allowed the teachers to extract interactional materials such as worksheets, along with research articles for the students to analyze and summarize. In Hussin's (2002) courses, nursing students were shown videos of experienced nurses talking and performing some occupational tasks.

In order to teach medical terminology more effectively, some projects and research studies have been conducted. In 1991-1992, for example, the Institute for the Study of Adult Literacy in Pennsylvania developed and field-tested an innovative curriculum with instructional materials to teach specific health care vocabulary for beginning licensed practical nurses. In this project, the staff were trained in the use of materials and then they implemented the curriculum and materials at two sites in Pennsylvania. In order to train students to use structural analysis to understand medical vocabulary, the materials were designed in the form of a narrative about a woman learning medical vocabulary from a friend. First, learners took a pretest and began using materials in the classroom and used them over a three month period. The post test scores indicated that the learners made great progress. In addition, when interviewed, both the instructors and the learners who used the new materials commented positively on them. Overall it was concluded that the use of structural analysis by identifying word parts like prefixes and suffixes enables students to determine the words' meanings, and the integration of reading, writing, listening and speaking skills in the context of the story enabled learners to understand medical terminology while enjoying the material (the collection of stories with highlighted vocabulary, teachers' guide, reproducible activities, pre/posttests are provided in Eric document numbered 356 361).

Another attempt at teaching medical terminology came from Essex Community College, MD., where a manual was prepared for introduction to medical terminology for the Claretian Medical Center Worker Education Program of Northeastern Illinois University's Chicago Teachers' Center in Partnership with the Union of Needletrades, Industrial, and Textile Employers. This manual, published in 1996, consists of glossaries and descriptions of medical terminology for use in a workplace literacy program for hospital workers.

In teaching medical terminology, Laar (1998) points out the need for systematic presentation of term-forming elements like prefixes and suffixes in medical texts in his study. He assumed that words of Latin origin could be successfully taught via integrated teaching in the English and Latin courses designed for the Medical Faculty of Tartu State University in Estonia. As for the terms of multilingual usage, which are found in several languages in phonetically, grammatically and semantically similar forms, they could be included in English courses to improve text comprehension. The aim of his study was to examine the teaching of this vocabulary to medical students for their courses of Latin, English, and medical subjects and to what extent Latin courses could enhance the learners' comprehension of English medical texts. In the study, the stems and affixes of Latin and Greek origin were systematically presented to medical students learning English at advanced levels. The Latin and Greek stems and affixes frequent in multilingual terms were listed and their definitions were given in English, as were the practice exercises. At the end of the courses the feedback from students was very positive. Laar concludes that as the English language is enriched by Latin borrowings, the

English course is the most reasonable framework within which to teach Latin and Greek elements found in medical terms to students studying medicine.

The other approach to EMP teaching is the grammar-translation method which is probably still a common feature of language courses throughout the world (Maher, 1986b). Also in Turkey, the grammar translation method has remained a commonly practiced method of ELT. In fact, translation is an important field in Turkey as recent scientific discoveries and treatments in medicine are usually made accessible to readers via translations, and in ELT, the translation method is used to make the medical texts more understandable to the students. However, it is worthwhile noting some possible problems encountered in the field of professional medical translation. Very early on, Newmark (1976, 1979 cited in Maher, 1986b) pointed out some of these main difficulties as follows: The medical language register in European languages has a lot of synonyms, and there is the problem of standardized lexis (terminology, agreed hospital jargon, etc.) and the difficulty of technical usage, which he regards as the most difficult problem for the translator who is neither medical nor paramedical himself. A further evidence against translation came from Maher (1986b), who supposed that in EMP classrooms, learners are already supposed to have mastered medical texts in other ways, such as comprehension checks and exercises. He also argues that translation of medical texts may not be so effective in improving English competence but merely encourages dependence upon the practice of translation itself. He identified three problems in the use of translation in an EMP context: accuracy, quality of translation and being very time consuming and distracting for the students because of the equivalence problem

with some languages. Recently, Sezer (2000) pointed out that translation is potential source of errors. Nevertheless, translation continues as a popular approach in Turkey.

In the field of medical translation, the most recent and notable work is that by Asalet Erten, who published the book '*Tip Terminolojisi ve Tip Metinleri Çevirisi*' (*Medical Terminology and Translation of Medical Texts*). In her book, the characteristics and formation of medical terminology, approaches to the translations of medical texts, example translations from English to Turkish, and criticism of some translated texts can be found. For those who see benefit in translation, this book can provide good guidance to them.

To conclude, the main discussion in the literature was that medical students' communicative academic and professional language needs should be met via various tasks, which are mostly problem-based as they allow for better contextualization of medical concepts. The literature also recommends using technologies which provide real world data. The literature also indicated that there are also some more structural and traditional approaches to the teaching of medical English. These attempts to develop specific courses using technologies and instructional methodologies like content-based, problem-based and grammar translation for teaching medical English to medical students and health care staff indicate that English for medical purposes teaching is a demanding job for the instructors. The instructors, therefore, should first analyze the students' unique needs in their contexts and then consider which of these approaches can be suitable. In this sense, needs analysis, as the first step of appropriate course design for the students, is important.

Needs Analysis

A great part of the literature posits that needs analysis should be regarded as the starting point to develop a curriculum, to design syllabi, to plan courses, and adopt and adapt materials effectively (Brown 1995; Graves 2000; Dudley-Evans & St. Johns 1998; Hutchinson & Waters 1987; Jordan 1997; Richards 2001). Needs analysis has been a crucial aspect of ESP course (Dudley-Evans & St. Johns, 1998; Graves, 2000; Jordan, 1997; Hutchinson & Waters, 1987) indeed, Richards (2001) claims that the ESP movement introduced needs analysis into language instruction and course design.

In designing courses, instructors try to figure out the needs of the students and try to design matching goals and objectives to meet them. Mackay (1978) points out informal, intuitively employed approaches to analysis of learners' requirements will inevitably lead to vagueness, confusion and even erroneous outcomes. He underlines that teachers, therefore, should first identify the learners' specific objectives, and then should translate these requirements into linguistic and pedagogic notions in order to develop and run an effective course. Needs analysis is the formal way of doing this. Brown (1995) defines needs analysis as "the systematic collection and analysis of all relevant information necessary to satisfy the language learning requirements of the students within the context of the particular institutions involved in the learning situation" (p. 21). He further acknowledges that needs analysis refers to the activities and procedures used to gather information that can be employed to develop a curriculum that will meet the learning requirements of a specific group of students. Similarly, Richards, Platt and Weber (1985, cited in Brown, 1995) define needs analysis as "the process of identifying the requirements for which a learner or

group of learners necessitates a language and arranging the needs according to priorities” (p. 35). Richards (1984, cited in Nunan, 1988) maintains that analyzing students’ needs enables teaching practitioners to gain insight into the content, design and implementation of a language program, to develop goals and objectives, materials, and content, and to provide data for assessing the existing program.

Nunan (1988) points out that the collection of biographical data is the initiating point for developing a learner-centered curriculum. In learner-centered curriculum design, considering learners, their needs and their motivations, relevant to content to respond to their needs, is very important and thus, learning is seen as a process in which learners themselves should participate in the designing process of courses (Graves 2000; Nunan, 1988). Nunan (1988) claims that for a successful learner-centered curriculum, the participation of program administrators and the collaborative work of teachers, as well as the involvement of many students, in the process of developing the curriculum is crucial. Similarly, Brown (1995) points out that information gathered from learners as well as from other sources such as teachers, employers, administrators and institutions must be considered as important data to achieve a reliable analysis of learners’ needs.

Graves (2001) assumes that when needs analysis is implemented into the teaching methodology as an ongoing process, it helps the learners to better evaluate their learning process, to become more aware of their needs, and thus “gain a sense of ownership and control of their own learning process” (p. 98). Similarly Hutchinson and Waters (1987) regard needs analysis as not a once and for all activity but a continuing process. Nunan (1988) recommends that need analysis procedures should occur not only in the initial stages but also continuously throughout the

courses. Graves (2000) defines this ongoing character as a cycle with the following steps: Deciding what information to collect and the rationale behind this choice; deciding the most convenient way to collect (when, how, from whom); collecting the information; interpreting the information; performing on the information; assessing the effect and effectiveness of the action; and deciding on further or current information to collect.

To sum up, needs analysis is the process of collecting data which reflect the profile of the needs of the learners in order to make sound decisions about the goals, objectives and content of a curriculum which will fulfill these identified needs. It is a cyclical and ongoing process that can take place before, during and after the courses, considering the fact that the needs may vary over time.

Types of Needs

In the literature the concept of needs is described in similar and somehow overlapping ways under different titles. Brindley (1989) points to the difficulty in finding a usable definition of needs in terms of second language learning. Similarly Richterich (1983, cited in Brindley, 1989) states that “the very concept of needs has never been clearly defined and remains at best ambiguous” (p. 64).

Brindley (1989) offers two categories of needs: *subjective* and *objective*. While objective needs can be determined through observation of a situation, the learners, and their use of language, subjective needs are more complex and difficult to observe as they involve the wishes and expectations of learners. According to Brindley, objective needs refer to the needs which can be gathered from different kinds of information about learners, how they need to use language in real life communication situations, along with their current level of language proficiency and

what else they need to learn. The second term refers to the needs of learners in the learning situation and can be understood from affective and cognitive factors, such as learners' personality, confidence, attitudes, wants, expectations regarding learning English, cognitive styles, and learning strategies.

Berwick (1989) considered needs as *felt* and *perceived* needs. Felt needs are similar to subjective needs, which learners suppose they require and can be defined as wants and desires of the learners. On the other hand, perceived needs like - objective needs- are presumptions of authoritative experts on the educational gaps in learners' learning experiences.

Hutchinson and Waters (1987), on the other hand, make a distinction between *target needs* and *learning needs*. Target needs involve what learners require to act in the target situation effectively and learning needs involve what learners are required to do in order to learn effectively. They pose these questions to identify the target language needs: "Why is the language required? How will the language be performed? What will the content areas be? Who will the learners use the language with? Where will the language be used? When will the language be used?" (p. 59). Under the umbrella term of target needs they consider the target situation in terms of *necessities*, *lacks* and *wants*. Necessities are the types of needs determined by the desires of the target situation, that is what learners have to know in order to function effectively in the target situation. They use the term 'lacks' in order to refer to the gaps between target proficiency and existing proficiency of the learners. The 'wants' of learner can be regarded as subjective needs, but since they represent the learners' expectations, Hutchinson and Waters argue they can have a great impact on learners' motivation in the learning process, and should not be underestimated. Learning

needs, however, examine what the learners can perform in the existing learning environment along with their skills, problems, and perceptions. Brindley's subjective needs and Hutchinson and Water's learning needs are somewhat similar in terms of their role throughout the learning process. Similarly, they pose these questions for learning needs: "Why do the learners take this course? How do the learners learn? What resources are available? Who are the learners? Where will the ESP course take place? When will the ESP course take place?" (p. 62).

Brown (1995) made a further classification on the types of needs as *situation needs* and *language needs*. By situation needs he refers to the type of information focusing on a language program's human aspect, referring to the physical, social, and psychological context in which learning occurs. The language teaching materials available, and the differences and similarities in the students' social backgrounds can be given as examples of the language programs' features which might have an impact on the learning process. By language needs he refers to information including the target linguistic behaviors that the learners should gain. Language needs include details about the situations in which language will be used, required competency, learners' reasons for learning a language, and so on. As a general comparison of the types of needs confronted with throughout the literature, Brindley's 'objective needs', Hutchinson and Water's 'necessities', and Brown's 'language needs' refer to roughly the same category of learner language requirements.

Target needs are associated with how the students may need to use language in their future academic and occupational domain, and also the necessary language skills they need to acquire to perform effectively in the target situation. Language and learning needs are concerned with how learners learn to use language efficiently,

the learners' reasons for studying the language and what language problems they mostly face. In addition, situation and language needs are categories interrelated to each other. In this study, therefore, the target needs, situation needs and learning needs of the students were all investigated as they were seen as closely related to each other and all important for the curriculum renewal.

Methodology of Needs Analysis

The critical issues that should be taken into consideration before conducting a needs analysis are deciding on who will be involved, what type of data will be collected, how they will be collected and how they will be analyzed and interpreted.

Brown (1995) describes four categories of people who should be involved in the needs analysis process: the target group, the audience, the needs analyst, and the resource groups. The target group refers to people about whom information will be gathered. They can be learners or teachers whose needs are being analyzed. Audience refers to the people who will directly make use of the outcomes of the assessment process. This group usually involves teachers, administrators and governmental institutions. Needs analysts are those who are responsible for conducting the needs analysis in a reliable and valid way. A resource group includes any group of people who may serve as sources of information about the target group. This group may consist of parents, language instructors, content-area instructors, and employers. Brown points out that special attention should be given to identifying these groups of people in order not to exclude important individuals or groups in the process.

Brown (1995) suggests that four different philosophies can be adopted when considering the type of information that should be gathered: discrepancy, democratic,

analytic and diagnostic. In a discrepancy philosophy, needs are considered as discrepancies or differences between the performance demanded from learners and what they are currently achieving. In a democratic philosophy a need is defined as any change that is demanded by a majority of the group involved. In analytic philosophy a need is anything the students can intuitively be expected to need next based on what was acquired about them and the learning process involved. A diagnostic philosophy defines needs as anything that, if missing, would be harmful.

For the data collection instruments various methods and types of instruments can be used to analyze the needs of the students. The most frequently used instruments are existing information, tests, observations, interviews, meetings and questionnaires (Brown, 1995). Existing information refers to any preexisting information that may be available including data sources within a program or external data sources. According to Brown, tests are a good source of information in terms of identifying the general ability levels of students. He further acknowledges that interviews may be exploited because of their open-endedness. In addition, interviews can be structured with questions thought of beforehand and additional questions can be added to get more detailed and clearer responses. As for observations, they involve watching an individual or a group of individuals and recording the behaviors that take place. Observing a group of people while they are meeting and engaged in a task may provide useful information about the people and the program. Brown also points out that meetings are different from interviews as they can also be structured in a way that participants can be provided some tasks like reaching a consensus. The groups of people involved in a language program can come together and discuss the different program philosophies, different views as to

what the learners' needs are and objectives related to them, to reach a compromise and consensus. Questionnaires are a useful and time efficient way of collecting data that can be applied to a large group of people. Graves (2001) points out that questions should be clear and not ambiguous to avoid the misunderstanding of students.

As for the data analysis, computer-assisted techniques are useful for most surveys of large populations and for questionnaires or interviews that involve a large number of questions. The open-ended questions in questionnaires can be categorized and analyzed by hand (Shutz & Derwing, 1981). Observations and interview data are qualitatively processed. After analyzing the results the researcher interprets the results and gives implications toward the design and development of ESP programs which can meet the needs of the learners whose needs have been assessed. She or he may also provide implications for further studies.

Similar Studies

Numerous studies have been conducted worldwide and in Turkey in order to investigate learners' needs in different contexts. Since the current study aims to investigate tertiary level students' English language requirements in medical contexts, the scope of the research on similar studies is narrowed down to those focused on medical contexts. Akgül (1991) conducted a needs analysis at the Medical Faculty of Erciyes University, Alagözülü (1994) conducted a needs analysis at the Medical Faculty of Cumhuriyet University, Boztaş (1988), at the Medical Faculty of Hacettepe University, Elkılıç (1994), at the Faculty of the Veterinary Medicine at Selçuk University and Chia, Olive, Johnson, and Chia, (1998) at the

Chung Shan Medical College in Taichung in Taiwan. These studies found in the literature will be reviewed according to their participants, methodology, and findings.

Firstly, all five studies reviewed include various groups of undergraduate students (Akgül, 1991; Alagözlü, 1994; Boztaş, 1988; Chia, et al., 1998; Elkılıç, 1994). In addition to the students, some of the studies also gathered data from the English language instructors (Alagözlü, 1994; Elkılıç, 1994;) and content area instructors (Boztaş, 1988; Chia et al., 1998; Elkılıç, 1994) and administrators (Alagözlü, 1994). While, the data were generally collected from students and instructors via questionnaires (Alagözlü, 1994; Akgül, 1991; Elkılıç, 1994; Chia et al., 1998), in only one study, interviews were held with administrators (Alagözlü, 1994) and in another study (Boztaş, 1988) structured interviews were held with content area instructors to get their opinions of language needs and their suggestions for eliminating the deficiencies. During the interview, samples of students' exam papers were also requested in order to diagnose specific problem areas the students may be having with using the language.

It should be emphasized that the results of all of these studies indicated that reading was regarded as the most needed skill, as the medical students mostly needed English in order to read English medical texts. The results also pointed out the need for learning vocabulary and structures used in medical texts. However, there are some differences among the different parties of the studies towards the importance of the other language skills. To exemplify, in Elkılıç's (1994) study, faculty members regarded listening as the second most important skill for the students while the students' perceptions of listening, writing and speaking skills were very close to each other. In contrast, Boztaş' study revealed that the students perceived listening as the

most important while the instructors perceived reading as the most important skill. In Alagözlü's (1994) and Boztaş's (1988) studies, interpreting was also considered as an essential requirement for the medical students' academic studies by all parties. Chia et al.'s (1998) study revealed that in their freshman English course, listening was considered as the most important skill. Another important finding of the studies of Alagözlü, Elkılıç, and Akgül is that students have low writing and speaking proficiency, as they were seen as the least needed skills. Little attention was consequently given to their improvement in the curricula. However, in Boztaş's study and Chia et al.'s studies, which were conducted in English medium contexts, the writing skill is also seen as an important productive skill, as the students need to take notes in English in their medical courses. Similarly, in Elkılıç's study, both the students and instructors agree that English writing skill is necessary to take notes and write papers in their field of veterinary medicine.

In terms of the scope of the studies, while all of them focused on the most-needed language skills, Akgül (1991), Alagözlü (1994), Chia et al. (1998) also tried to identify the perceptions of the students towards the instructional materials made use of through the course. Alagözlü's study revealed that the instructors really thought that graphs, charts and tables were most important-more so than journals, papers and articles. However, all parties agreed that textbooks should be appropriate to the students' proficiency levels and their language needs, and extra reading materials such as journals and papers should be provided along with the textbooks. Chia et al. investigated issues such as the activities needed and suggestions for the development of course content and materials. In their study, general English in the freshman year (first year), followed by medical specific elective courses over the successive three

years were seen the most reasonable pattern to be adopted and all parties agreed that the materials should be relevant to the medical field. Similarly, Akgül's study revealed that students prefer authentic reading materials such as periodicals, journals or textbooks published in English. Boztaş also included other topics in his study such as assignments, examinations, study skills and future career. For the questions about assignments, the students in his study ranked 'Reading from textbooks and writing a summary report' as first, and 'writing a paper on a specific topic' as second. Analysis of examinations revealed that half of the students had difficulty understanding exam questions and a quarter of them had difficulty especially in medical exam questions. Analysis of study skills revealed that students need training in note-taking as an integral part of listening skills, because most of the students need to take notes during lectures. He also classified the areas of difficulty as: (a) prefixes, (b) suffixes (c) word finals (d) main anatomical terms of location (e) sentence connection and transition (f) cause effect relationship (g) use of passive verbs (h) use of relative and reduced relative clauses (i) predicting the probability and future occurrence (j) negative introductory words, phrase or clauses to stress an idea.

All of these studies indicated that there are two common fundamental outcomes: students perceive receptive skills as more important than the productive skills and all felt that their needs were not fully being met by their existing curriculum and the methods of instruction. The studies also revealed that although students perceive receptive skills as important, they have difficulties with them mostly due to lack of knowledge of medical terminology and complex use of medical discourse.

Conclusion

In this section, English for Specific Purposes (ESP) was explained in terms of its distinguishing points from English for general purposes, the development process and its course types. Then, the literature about English for medical purposes (EMP) was reviewed in terms of the field of EMP and its importance, the characteristics of medical English, research studies and ways of teaching EMP. Finally, the purposes of needs analysis, various definitions of needs, methodology of needs analysis and similar needs analysis studies conducted in medical contexts were presented. The next chapter will explain the methodology of the current study in terms of the setting and participants, instruments, procedure and data analysis.

CHAPTER III - METHODOLOGY

Introduction

The aim of this study is to investigate the academic and professional English language needs of the students at the Medical Faculty of Pamukkale University (PAU), to identify medical students' needs according to the perceptions of various groups, as indicated in the following research questions:

1. What do medical students in an EFL context perceive as their academic English needs?
2. What do the academicians perceive as these students' English language needs?
3. What do the administrators perceive as these students' academic English needs?

Pamukkale University (PAU) is a Turkish medium university, but the students need to read materials in English for their problem-based learning classes at the Medical Faculty. The starting assumption of this study was, therefore, that English is important for the students' academic studies and professional career, and the identification of their needs by various parties would provide useful data for the renewal and development of their English courses in order to match their specific English language needs.

In this section, first, information about the English language courses at the Medical Faculty of Pamukkale University is given. Second, the participants of the study are introduced and third, the data collection instruments are explained. Finally, the data collection procedures and analysis are described briefly.

Setting and Participants

At Pamukkale University (PAU) the Institute of Foreign Languages is still in the process of being established. Only the Medical Faculty has had English preparatory courses provided since 1998. In addition, physiotherapy students have attended the preparatory classes at the Medical Faculty for the last two years. Instructors from the Foreign Language Department of Pamukkale University have provided these courses. Students who fail in the English proficiency exam given when they first come to PAU have to attend the preparatory class. As yet, there has not been further classification of the failed students' English levels, so each year, there is only one preparatory class for medical students and another for physiotherapy students. In the preparatory class of the Medical Faculty, after a final exam, taken at the end of the spring term, the students who have attended the preparatory classes regularly can pass to the first year of medical faculty, even if they fail in the exam. They then have the right to pass the prep class exam at any point within the six years before they graduate. As for the English courses in the following years, the first year English course consists of general English, the first term of the second year English courses work on improving reading and speaking skills, and the second term introduces English for Medical and Academic Purposes. In the third year, English for Medical Purposes courses are provided.

Three groups of participants- academicians, enrolled medical students, and the Dean of the Medical Faculty- have been included in this study, because it was felt that all parties may have different but valuable opinions of the students' language needs. For the first participant group, content instructors and specializing doctors were ultimately grouped under the heading of "academicians" as their perceptions of

the students' English language needs were found to be statistically similar in the data analysis. Academicians' opinions are very important, in that they may be more aware of the students' target English language needs, as they may have had foreign language problems during their own professional lives. Undoubtedly, students themselves are important sources of information about their needs, as they are the ones who need English and experience the learning process. The Dean is regarded as an important authority in the administration of the Medical Faculty and in the decision-making process of the establishment of the curricula for the medical students. It is assumed in this study that any differences between the perceptions of the parties may have an impact on the teaching and learning process of English language.

In this study, questionnaires were administered to students enrolled in the first through sixth classes at the faculty, who were available at the week when the questionnaires were distributed. As can be seen in the table 1, 173 currently enrolled students were administered questionnaires. These can be divided into two groups: Group 1 includes those students currently taking English courses (1st-3rd year), and group 2 consists of 4th-6th year students who no longer take English courses. The rationale behind this is to investigate all the students' language learning needs and expectations, and to investigate their satisfaction with their present situations.

The total number of the students was 173, consisting of 103 male (59.5%) and 70 female (40.5%). Their ages ranged between 17 and 29, with an average of 21. Additional demographic information about the students can be seen in Tables 1 and 2.

Table 1 - The number of the students in various classes.

Classes	F	P
First class	47	27.2%
Second class	31	17.9%
Third class	28	16.2%
Fourth class	26	15.0%
Fifth class	30	17.3%
Sixth class	11	6.4%
Total	173	100%

Note: F=Frequency P=Percentage

Table 2 - Types of high schools the students come from

Types of High Schools	F	P
General high school	27	15.6%
Commercial high school	1	0.6%
High schools which provide intensive English education such as Anatolian high school.	145	83.8%
Total	173	100.0%

Note: F=frequency P=percentage

As can be seen in the table 2 above, the students mostly come from high schools providing intensive English education.

Out of about 170 content area instructors and specializing doctors, (who were appointed to PAU hospital after their Residency Examination for Medical Doctors, T. U. S), 80 questionnaires were distributed to those who were available on the days the researcher visited. Of these, 58 completed them fully. Out of this total 58 academicians surveyed, 14 instructors hold administrative positions as heads of their departments. One was the head of the Institution of Health Sciences and one was head of the Operation Unit. Thirty-three academicians were male and 25 were female, and their ages ranged between 27 and 51, with an average of 39. Additional information about the titles of the academicians who responded to the questionnaires can be seen in table 3.

Table 3 - Titles of the academicians

Titles	F	P
Lecturer	1	1.7%
Specialising Doctor	23	39.7%
Assistant Prof.	14	24.1%
Associate Prof.	13	22.4%
Professor	7	12.1%
Total	58	100.0%

Note= F=Frequency P=Percentage

An interview was held with the Dean of the Medical Faculty to reveal how he perceives the medical students' needs and to get information about the existing situation of language classes, the existing curricula and the necessary language skills to improve.

Instruments

As the data collection instruments, questionnaires and interviews were chosen. Questionnaires are regarded as a cost and time efficient way of collecting information from large groups of participants and they also enable comparisons of the perceptions of various groups (Dörnyei, 2003). Brown (2001 cited in Dörnyei) states "Questionnaires are any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers" (p. 6). Interviews were used in three different contexts. First, an interview with both structured and open-ended questions was held with the Dean of the Medical Faculty. According to Brown (1995), individual interviews enable researchers to obtain personal responses and points of views face to face. Second, informal interviews were used in the creating of the questionnaire. Richards (2001) writes that interviews can be used before creating

a questionnaire to get an idea of what topics and issues can be focused on. For this purpose, at the initial stage of designing the questionnaire for the study, informal interviews with students, doctors, and English language and content-area instructors were held. These interviews were considered 'informal' because they were not taped and transcribed. Rather, during the talks the researcher took notes for her own use. Finally, informal interviews were again used during the data analysis phase in order to gain some possible insights into the students' and academicians' responses on the questionnaires.

The questionnaires were created based, in part, on information gained from these informal interviews, on questionnaires used in previous needs analyses conducted in medical contexts (Akgül, 1991; Boztaş, 1988; Chia et al., 1998), and on the literature on ESP and EMP. The questionnaires were in Turkish to avoid any misunderstanding by the respondents. They were first created in English and then translated into Turkish and translated back into English before the inclusion in Appendices. In this way, the quality of the translation has been enhanced.

In the questionnaires, there were four types of questions: questions for demographic information, Likert-scale, ranking, and multiple response questions. For the multiple response questions, the opportunity was given for participants to include their opinion by providing an 'others' item as an open-ended suggestion. In the questionnaires, there were common questions for both parties and also one specific question to identify the academicians' own professional English language needs.

The first part of the questionnaire for the students included demographic questions about their gender, age, the high school they graduated from, and the class they currently are attending at PU. For the academicians, the demographic questions

asked about their gender, age, title, the university they graduated from, the university they obtained their specialty from, and their departments.

In the second part of the questionnaire, Likert scale questions were used to identify the perceptions and attitudes of all parties as to the importance of learning English for medical students in general and learning and using English specifically at the Medical Faculty of PAU. These questions were also related to the students' situation needs, for example, the language teaching materials available, or whether there are enough books translated into Turkish for their studies. The Likert scale questions consisted of five options: strongly agree, agree, not sure, disagree and strongly disagree.

The questions in the third part of the questionnaire investigated the perceptions of all parties as to the students' learning and using all four language skills -reading, writing, speaking and listening- and the difficulties they face while using them. These questions were related to their target and learning needs. In this part, Likert scale questions and multiple response questions were used. In the questionnaires for doctors and content-area instructors, there is a specific question added to investigate for what purpose they have needed English language in their academic and professional careers.

The questionnaires were piloted at the Medical Department of Ankara University with eight students, and four academicians. The aim of this piloting was to make sure the participants would be able to answer the questions without difficulty and check if there were poorly stated or ambiguous questions. After the piloting, necessary adjustments were made. Then their reliability and validity was determined

calculating Cronbach's Alpha. For the students' questionnaire, the coefficient was 0.8928, for the academicians' questionnaire the coefficient was 0.9031.

In the interview with the Dean of the medical faculty, both structured and open-ended questions were asked. These questions were mostly created parallel to the questions in the second part of the questionnaire to better obtain information about the situation needs and the attitudes of a key administration official towards the teaching, and learning of English at the medical faculty, and its importance for the medical students. Questions about language skills were also asked.

Data Collection Procedure

Following the piloting and necessary adjustments in the questionnaires, permission to conduct the questionnaires at Pamukkale University was obtained from the university administration on 25 January, 2007. The questionnaires were distributed and collected by the researcher in late January and early February. The questionnaires were distributed to all the students in their class hours by the instructors. As for the questionnaires for content-area instructors and doctors, first they were visited in their offices and their cooperation was requested. The questionnaires were submitted to them and collected by hand in mid February. The interview with the Dean was held on date, and then tape-recorded and transcribed by the researcher.

Data Analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS 11). As there are three questions types -Likert scale, multiple choice and ranking questions- different statistical techniques were used. First, means and standard

deviations for the Likert scale items were calculated and analyzed. Then, chi squares were used to find out if the differences between the responses of the separate groups were statistically significant. Third, for the multiple response questions, percentages were calculated. The question for ranking the priority order of the language skills was analyzed with descriptive statistics displaying means and standard deviations. Finally, the interview data were analyzed qualitatively by going over the transcript and looking for answers that corresponded to certain questions from the questionnaires.

Conclusion

This section presented information about the language courses at the medical Faculty of PAU, information about the participants and why they were selected to gather data from, and the means by which the data were gathered. The data collection and data analysis procedures were also presented. The following chapter will discuss the data analysis process and the results in detail.

CHAPTER IV - DATA ANALYSIS

Introduction

This study intended to investigate the academic and professional English language needs of the students attending the Medical Faculty of Pamukkale University (PAU) in Denizli. The aims of the study were to obtain the perceptions of currently enrolled students, academicians and administration about these needs.

The data for this study were collected via questionnaires, which were designed in the same format and with the same questions in order to be able to compare the parties' responses, and an interview held with the dean of the faculty. Completed questionnaires were collected from 173 currently enrolled students and 58 academicians.

In this section of the thesis, the results of the questionnaires will be presented. The results of the questions are presented in the order of the two main sections in the questionnaire. Part B of the questionnaire was prepared to obtain the respondents' opinions about language teaching at PAU, while Part C of the questionnaire was about the four language skills. The questions in both sections were Likert scale except for 11, 12 and 13, which were multiple choice.

The participants' responses were analyzed using the Standard Packages of Social Sciences (SPSS 11). Frequencies and percentages were found for the questions about the respondents' perceptions of the frequency of the need for the four skills, (Q-2, 4, 7, 9) and percentages were found for the multiple choice type questions. As for the Likert item questions, the means of the items were found, then chi squares were calculated for each question to see whether there were significant differences between the perceptions of the different groups of students, and between

the students and academicians. Interpretations of the means on the Likert-scale questions were made according to the following scale:

- 1) Strongly disagree: mean values between 1.00 and 1.80
- 2) Disagree: mean values between 1.81 and 2.60
- 3) Not sure: mean values between 2.61 and 3.40
- 4) Agree: mean values between 3.41 and 4.20
- 5) Strongly agree: mean values between 4.21 and 5.00

Questionnaire Part B

Overall Views

When comparing the perceptions of those 1st-3rd year students currently enrolled in English classes and the 4th-6th students who are not, the descriptive statistics for the first four questions (see table 4) indicate that both groups feel that learning general English is important, and medical English very important, with an average mean of 3.94 for general English and a particularly high 4.45 for medical English. There is a high consensus on this question indicated by the low standard deviation (0.72). Consistent with this, the 3rd and 4th questions' results indicate they also agree that both medical English and general English instruction should be given in the preparatory class (M=3.72, 3.62 respectively). In terms of the current English class hours (Question 6), they do not find the class hours adequate for their academic and professional English language needs (M= 2.53). On the other hand, they seem to be not sure about the idea that the English classes should go on during their medical education at PAU (Q-9, M=3.19), a result also indicated by the large range in their answers (SD=1.44). In interviews held after looking at the results of the data

analysis, the students at higher levels (whose means are lower than the others) noted that they have to work very hard for their own medical studies, and find continuing English as a lesson a bit difficult. In addition, the 6th year students have to work long hours at the hospital as interns, so they find it inconvenient to attend the English classes. For similar reasons, perhaps, according to question 7, both groups report being strongly satisfied (M=4.27) with the condition in which they are allowed to pass to the first class of the medical faculty, even if they fail in the English preparatory class. Finally, according to question 8, both groups of students perceive it as important to have separate classes for different language proficiency levels. This situation may require new adjustments on this situation in the future.

Table 4 - Descriptive statistics for overall perceptions.

	Means				Std. Dev.			
	Acad	All	G-I	G-II	Acad	All	G-I	G-II
1. General purposes English is important for medical students at PAU.	4.43	3.93	3.96	3.90	0.82	1.10	1.12	1.07
2. Medical purposes English is important for medical students at PAU.	4.84	4.45	4.48	4.40	0.41	0.73	0.71	0.74
3. General English instruction should start in the preparatory class.	4.31	3.72	3.58	3.93	0.99	1.41	1.43	1.37
4. Medical English instruction should start in the preparatory class.	4.51	3.62	3.65	3.58	0.96	1.43	1.36	1.50
6. The current amount of English instruction given to medical students at PAU is adequate to meet their academic and professional English language needs.	2.48	2.50	2.65	2.34	1.06	1.22	1.27	1.12
7. Even if students fail in English courses in preparatory class, they should be allowed to continue their medical education.	3.67	4.27	4.33	4.18	1.34	1.12	1.09	1.14
8. The students should be taught in separate classes according to their proficiency levels.	4.08	3.83	3.85	3.81	1.15	1.29	1.32	1.27
9. English classes should continue during the medical students' academic medical education	4.10	3.18	3.07	3.39	1.15	1.44	1.46	1.38

Note: M: Mean SD: Standard Deviation

Acad.=Academicians G-I= Students in 1st-3rd years

G-II= Students in 4th-6th years All= All students

In terms of the comparison between students and academicians, as can be seen in table 4, the academicians give more importance to English education than the students. However, in terms of medical English, both the academicians' and the students' mean values are very high (4.84 and 4.45 respectively) and standard deviations are very low (0.41 and 0.72 respectively) showing their agreement on its importance.

Neither the students nor the instructors find the current amount of English instruction sufficient (Q-6, M=2.50 and 2.48 respectively). The Dean, however, takes a slightly different view. During the interview, when asked about the amount of English instruction, the Dean stated that there was a preparatory class and courses at Pamukkale University in which learners can learn about various texts. Rather than increasing the amount of English lessons, he suggested that the students who pass the preparatory class were supposed to continue improving their English by reading the medical sources at the library and on the internet. He added that whether they increased the hours of the English language lessons or not, the students had to follow the literature in their field to make preparations for their lessons, because of the fact that a problem-based approach is practiced in the medical faculty.

At Pamukkale University, there is only one preparatory class, with no further classification according to the students' proficiency levels. In terms of the 8th question, which aims to identify the parties' perceptions about this current situation in the preparatory class, both students and academicians agree that the students should have separate classes according to their language proficiency level. However, the interview with the dean revealed that the total number of students enrolled each year is not considered adequate for any further classification by level of the students

after the proficiency exam. According to information taken from the secretary of the medical faculty, on average 40 students are enrolled in the faculty, though the Commission of Higher Education increased the number of students to be enrolled this year to 52. Considering this increased number of students and their performance in the proficiency exam conducted at the beginning of the term, this number may not be so inadequate as the Dean stated. Even if approximately %50 of the students pass the proficiency exam and therefore do not need to attend the preparatory class, the remaining students are adequate to divide at least into two groups of lower and upper proficiencies.

Materials and Instruction

Questions 5, 12, 13, 15, 16, 18, 19, 20 and 21 are about the teaching materials (see Table 5). For question 5, 1st-3rd year students currently enrolled in English classes and the 4th-6th students who are not, agree (M=4.15 and 4.18) that the instructional materials in English classes should be related to medicine. However, the mean value of question 12 indicates that students feel they have inadequate English to read them (M=2.37). They also agree that there are not enough medical books translated into Turkish (Q-15), and they perceive it very important to read the original English resources (Q-16, M=4.33). The result of question 13 indicates (4.10) they also agree that to be able to access the medical sites in the Internet they should have high levels of English, and they are in consensus on this point (SD=0.93). According to question 19, they generally agree (M=3.86) that the internet should be used in English classes. Question 18 indicates the negative attitude (M=2.59) of the students towards the selection of the materials by the instructors. While question 20 indicates that the students are unsure about the adequate availability of technological

equipment (M=2.73), question 21 reveal the students' negative perceptions about their usage by the instructors at PAU (M=2.36).

Table 5 - Descriptive statistics for perceptions about materials and instructions.

	M				SD			
	Acad	All	G-I	G-II	Acad	All	G-I	G-II
5. The materials in medical students' English courses should be relevant to the medical field.	3.82	4.17	4.15	4.18	1.19	1.01	0.99	1.03
10. English language instructors should use a method of teaching in which the students can learn English interactively in groups.	4.55	4.18	4.15	4.21	0,63	1.03	1.07	0.98
11. PBL should be adapted to use in English for medical purposes courses.	3.98	3.29	2.99	3.49	1.06	1.44	1.54	1.21
12. The medical students at PAU have the language capacity to read the English language medical sources in the library.	2.20	2.37	2.29	2.45	0.83	1.10	1.09	1.12
13. In order to make use of the medical sites on the internet, one should have a high level of English.	4.14	4.07	4.22	3.93	0.74	0.93	0.83	1.06
14. Translation skills are important to develop learners' overall language competence for medical studies.	4.33	4.40	4.50	4.30	0.87	0.69	0.67	0.70
15. There are adequate English resources and textbooks translated into Turkish.	2.40	2.52	2.56	2.48	1.14	1.14	1.16	1.12
16. It is important for medical students to be able to read the original English texts.	4.48	4.33	4.35	4.30	0.60	0.77	0.84	0.65
17. English language instructors are knowledgeable enough to teach English for medical purposes courses.	3.03	2.57	2.61	2.52	0.97	1.04	1.07	1.01
18. At present, English language instructors at PAU consider medical academic English language needs when selecting the materials for their lessons.	3.03	2.59	2.58	2.60	0.88	1.08	1.12	1.03
19. English language instructors should use the internet in their courses.	3.86	3.86	3.82	3.90	0.94	0.98	1.07	0.89
20. At PAU, there is adequate technological equipment (TV, video, radio, internet, D.V.D.) available for language teaching.	2.67	2.73	2.76	2.69	0.94	1.25	1.30	1.20
21. At PAU instructors use the technological equipment effectively.	2.65	2.36	2.19	2.52	0.87	1.11	1.14	1.08

Note: M: Mean SD: Standard Deviation

Acad.=Academicians G1= Students at 1st-3rd classes

G2= Students at 4th-6th classes All= All students

Academicians also feel that the instructional materials in English classes should be related to medicine (Q-5, $M=3.82$), and they also do not find the students' proficiency level adequate to read the English medical sources in the medical library (Q-12, $M=2.20$, $SD=0.83$). In order to access the medical sites on the internet they feel that the students should have high levels of English and they also would like to see the internet being used in English classes. The instructors disagree with the idea that there are enough medical books translated into Turkish and they perceive it is very important that the students be able to read the original English resources ($M=4.48$, $SD=0.60$). For question 18, about whether English language instructors choose materials considering the academic English needs of the students, they do not have as negative feelings as do the students ($M=3.03$), and like the students, they are not sure about whether there is adequate availability ($M=2.67$) and usage of technological materials ($M=2.65$). On the other hand, as for the Dean's opinion of this question, during the interview, he stated that there is adequate technological equipment for language teaching.

In terms of instructional methods, while the students give importance to translation for their studies (Q-14, $M=4.40$) with remarkably high agreement ($SD=0.69$), they find interactive ways of learning English also important. For example, both groups appreciate the use of group work (Q-10 $M=4.15$ for G-1 and $M=4.21$ for G-II). However, they were unsure about question 11, adapting of problem based learning (PBL) -an interactive method of teaching- to the English classes ($M=3.29$). To be precise, the upper level classes reacted positively to this question ($M=3.49$), while the lower level classes were not sure. In terms of the academicians' opinions, they also give importance to translation for the medical

students' studies ($M=4.33$, $SD=0.87$), yet they too feel that interactive ways of learning English are very beneficial ($M=4.55$, $SD=0.63$). The academicians reacted more positively than the students to the adaptation of PBL to the English classes ($M=3.98$). Also the Dean's opinion about the PBL classes and the role of the instructors in them is important. He was in strong agreement with the idea of English language instructors and the content instructors cooperating to teach medical English. The content instructors and English language instructors should cooperate to more properly conduct PBL, as the students need to do research using English sources and discuss the medical issues in groups in PBL classes. In terms of question 17, asking the respondents' perceptions of the English language instructors' knowledge to teach medical English, the academicians express a more mixed attitude ($M=3.03$) than do the students, ($M=2.57$) who disagree that the instructors have adequate knowledge. As for the Dean's opinion, in terms of the English language instructors, he stated that they also should follow the medical literature and expand their knowledge of medical English, especially medical terminology admitting that he did not find the English language instructors adequately knowledgeable about medical English.

Comparison of Student Groups

After the descriptive statistics, which demonstrate the general picture of the perceptions of the students, chi square tests were run on each question to see whether there were significant differences between the perceptions of the two groups of the students. It should be noted that even though the mean scores between the two groups is at times close, the varying distribution of their responses according to the individual categories (Strongly agree, agree, not sure, disagree and strongly disagree)

resulted in occasional significant chi square results on these questions. Significant differences were found in questions 6, 11, 17 and 19 (See Table 6).

Table 6 - Chi square results of the student groups' perceptions

Questions	χ^2
6. The current amount of English lessons at PAU is enough to meet the medical students' academic and professional English language needs.	10.007**
11. Problem based learning method should be used in English for medical purposes classes.	12.894*
16. It is important for medical students to read the original English resources.	7.866*
18. At the moment the English language instructors consider the academic English language needs of the students when selecting the instructional materials	12.510**

Note: χ^2 = Chi-square **p<.01, *p<.05

As can be seen in the descriptive statistics in Tables 4 and 5, for the 6th question, it is the 4th-6th year students who responded negatively about the adequacy of the current class hours of English. As suggested by interviews with these upper level students, this may be due to the fact that they are no longer taking English courses, and are now realizing that two hours of English per week is too little for their first three years in the medical faculty. As for the question about the idea of adapting problem based learning methods to the English courses (Q-11), the upper classes responded more positively. This may be because they are now using PBL in their content courses, and thus are more familiar with its benefits. The 1st-3rd year students may not have had enough exposure to figure out its adaptation and its possible benefits in English courses and their academic studies. It is also possible that they have not become accustomed to the PBL approach. Their consciousness about PBL seems to contradict slightly with their response to question 10, which shows strong approval for interactive learning in groups. Interestingly, the literature on PBL says that it is problem-oriented, student-centered, and community-based, in

other words, interactive, and motivational for students. As for the 16th question, the students currently taking English courses found reading original English materials more important than did the senior students. As they are currently taking reading courses they may be giving more importance to reading in English than the senior students who are not currently taking English courses. The 1st-3rd year students responded more negatively than the senior students to question 18, about the choice of materials by the English lesson instructors considering the academic English language needs of the students. This may be because the 4th-6th year students are not taking the course, and they may not have an opinion about what is currently going on in English classes, unlike the other students, who are currently taking English courses.

Comparisons of the Academicians and Students

According to chi square results for the differences between the perceptions of the students and the academicians, several significant differences were found, as shown in Table 7.

Table 7 - Chi square results of the student groups and academicians' perceptions

Question	χ^2
1. It is important for medical students to learn English for general purposes.	13.857**
2. It is important for medical students to learn English for medical purposes.	16.750**
4. English for medical purposes instructions should start from the preparatory class.	21.860**
7. Medical students should be allowed to continue onto their medical education, even if they fail in English courses in preparatory class	17.192*
9. English classes should continue during the medical students' academic medical education.	18.933**
11. Problem based learning method should be adapted to use in English for medical purposes courses.	19.767**
12. The medical students at PAU have the language capacity to read the medical resources in English.	10.315*
18. At present, English language instructors at PAU consider academic English language needs of the students when selecting the materials for their lessons.	17.653**
20. At PAU, there is adequate technological equipment (TV, video, computer, D.V.D).	20.994**
21. At PAU, the instructors use the technological equipment effectively.	21.269**

Note: χ^2 = Chi square **= $p < .01$ *= $p < .05$

Although both groups perceive English for general and medical purposes as important, the results from several questions revealed that academicians give it more importance than the students, suggesting perhaps that the students may not appreciate the importance of English while they are still at university, but after they have graduated and become academicians, they come to understand how important it is for their professional lives. In parallel with this, for the 4th question, academicians more strongly agree with the idea that specific medical English instruction should be started in the preparatory classes. On the other hand, for the 7th question, even though the students are more in favor than the academicians of the condition that they are able to go on to their medical education without passing the preparatory class, the academicians also express agreement with the idea ($M=3.67$). The results for the 9th question again indicate the stronger feelings of the academicians about English education, however as they report wanting English education to be continuous

throughout the students' medical training, while, ironically, the students seem to be indecisive about it. Although the medical students regard English as important for their academic studies, they are not that positive about continuing English studies during their medical education. As I have commented previously for the students' groups part, their lack of enthusiasm for ongoing English language lessons may be because of their harder work at higher classes. Although they find English important, they may not want to take it as a formal lesson at school.

In terms of their opinions about the use of PBL method (Q-11), academicians support PBL much more strongly than the students, possibly as they have been given training about the potential benefits and are thus more informed than the students.

The responses to question 12 indicate that although both parties find the English language capacity of the medical students to read medical resources very low, the academician's perceptions are more negative than those of the students. This negative assessment is in line with the academicians' strong support for medical English instruction. For question 19, about whether English instructors consider students' academic English needs when selecting materials, the academicians are more positive than the students. They may be trying to be colleague-friendly and not wanting to criticize other teachers to a researcher-especially to a researcher who is also a PAU instructor. While both the students and the academicians are not sure about the availability of the technological equipment for language teaching at PAU (Question 20), the students openly disagreed with the idea that the instructors use the technology effectively, and the academicians remained unsure (Question 21). It may again indicate that the academicians are trying to avoid criticizing their colleagues. On the other hand, the Dean of the Medical Faculty openly agreed with question 20,

stating that adequate technological equipment is available for language teaching and the internet can be used by the English instructors to review clinical cases or pathologic systems.

Questionnaire Part C

Priority Order of English Language Skills

Table 5 below and Figure 2 show the priority ranking of the English language skills as reported by the 1st-3rd year students, the 4th-6th year students and the academicians.

Table 8 - Descriptive statistics for priority ranking of the four English language skills by the students and academicians

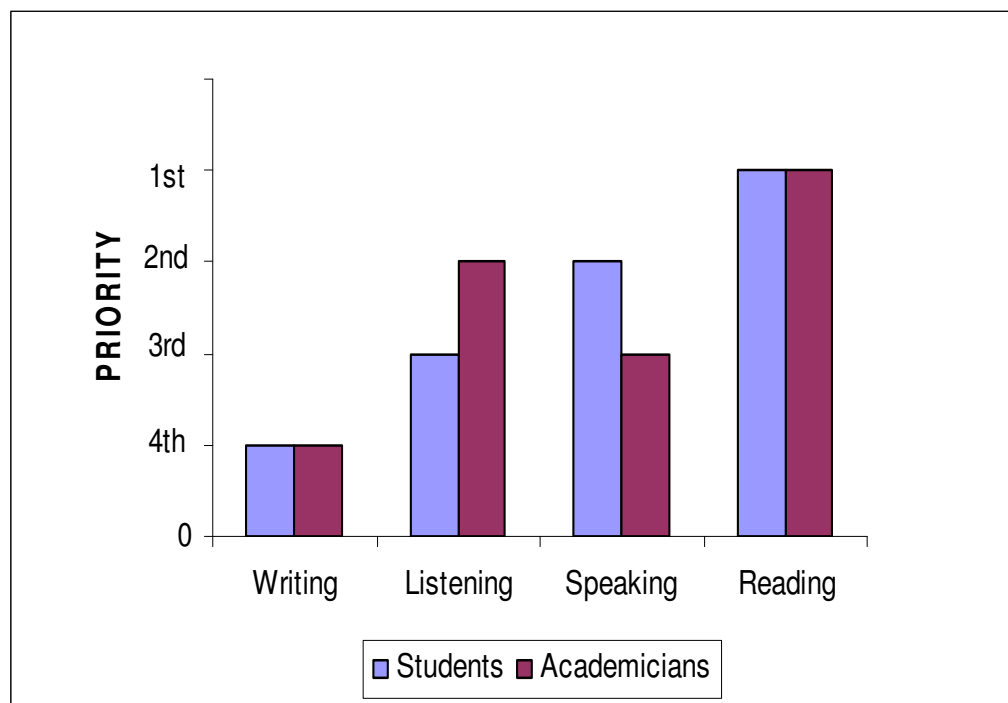
Skill	Group	Priority	M	SD
READING	Academicians	1	1.91	1.27
	ALL	1	1.92	1.15
	G-I	1	2.18	1.21
	G-II	1	1.52	0.93
SPEAKING	Academicians	3	2.70	1.07
	ALL	2	2.41	1.10
	G-I	2	2.23	1.09
	G-II	2	2.70	1.06
LISTENING	Academicians	2	2.44	0.90
	ALL	3	2.61	0.95
	G-I	3	2.45	0.92
	G-II	3	2.85	0.96
WRITING	Academicians	4	2.93	0.95
	ALL	4	3.06	0.95
	G-I	4	3.13	0.99
	G-II	4	2.96	0.89

Note: P R=priority ranking M=Mean SD=Standard deviation

All the groups responding ranked reading as the most important language skill for the medical students (M=1.92, SD=1.15 for all the students, M=1.91, SD=1.27 for the academicians). While the students ranked speaking as the second most important skill, the academicians ranked listening as the second most important

skill for the medical students. There was again a consensus of all the parties on the importance of writing skill, as it was regarded as the least important skill by all the respondents ($M=3.06$, for all the students, $M=2.93$ for the academicians and $SD=0.95$ for both groups).

Figure 2 - Priority ranking of English language skills by the students and the academicians



According to the chi square results, the differences between the perceptions of the 1st-3rd year and the 4th-6th year students in terms of their prioritization of English language skills were significant. In general all the students found reading skills important for the academic studies. This is most probably related to the problem-based learning classes, as they need to read the internet sites or library resources, which are mostly in English. However, the 4th-6th year students rank reading as more important than the 1st-3rd year students, perhaps as they understand

just how important it is for their academic studies. On the other hand, in terms of listening and speaking, the 1st-3rd year students ranked these skills as more important than the upper classes. This seems to reflect the greater importance they gave to interactive English learning in section B. Both groups of students agree that writing is the least important. This is probably due to the fact that PAU is a Turkish medium university and the instructors do not expect them to write in English, so they do not see it as very important in terms of their present situation. According to chi square results, the difference between the perceptions of the students and the academicians in terms of the priority order of the language skills is not statistically significant.

Table 9 - Chi square results for the priority order of the skills by the students

	χ^2
LISTENING	8.513*
SPEAKING	13.561**
READING	14.344**
WRITING	5.849

Note: χ^2 =chi square **= $p < .01$ *= $p < .05$

Perceptions about Writing Skills

For question 2, asking about the frequency of the students' need for writing skills, the fairly negative responses of all the students and the academicians can be seen in the bar graph below (Figure 3), with descriptive statistics reported below that in table 10.

Figure 3 - Academicians and students' perceptions of the frequency of the need for English writing skill

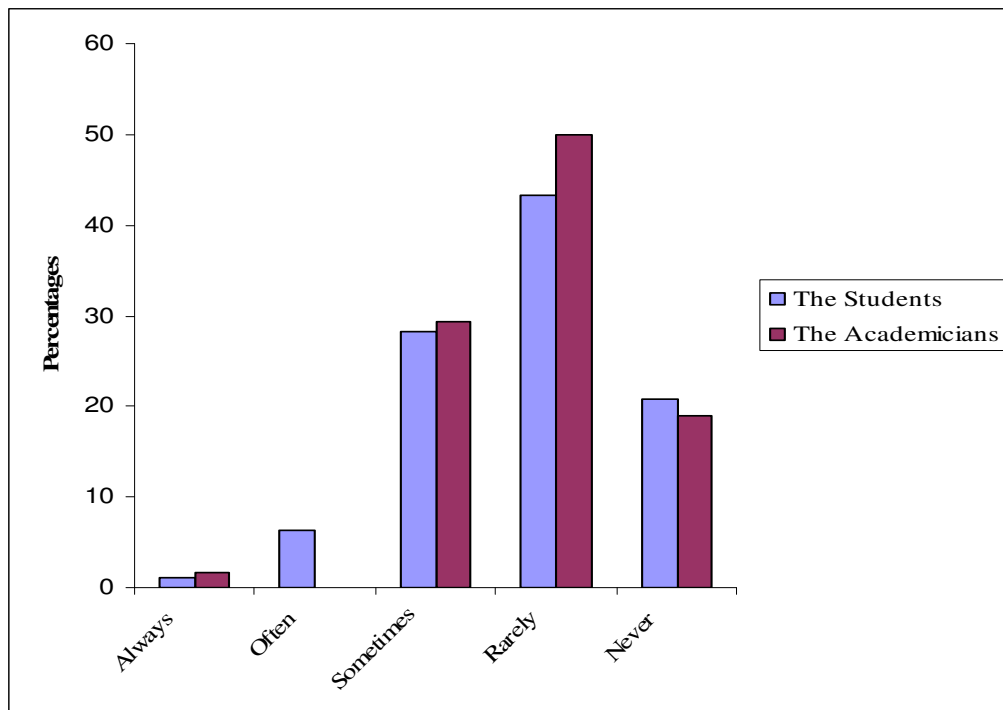


Table 10 - The students and the academicians' perceptions about the frequency of the need for writing skills

	Always		Often		Sometimes		Rarely		Never		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Academicians	1	1.7%	0	0%	17	29.3%	29	50%	11	19%	58	100%
Students	2	1.2%	11	6.4%	49	28.3%	75	43.3%	36	20.8%	173	100%

Note: F=Frequency P=Percentage

Over 90% of the students stated that they needed to write in English only sometimes, rarely or never, with only about 8% reporting often or always writing in English. As for the academicians, 98.3% of them stated that the students needed to write in English only sometimes to never and only 1.7% of them stated that the students always needed to write in English. There was no significant difference between the results of the students and academicians or between the two groups of students.

In terms of these minimal writing needs, question C-3 attempted to identify the types of writing the students most needed to be able to do in English. The responses of the students can be seen in table 11 below.

Table 11 - Descriptive Statistics for students and academicians' perceptions about why students need writing skills

Purpose	Group	M	SD
For laboratory reports	Academicians	1.96	1.02
	All	2.82	1.33
	G-I	2.92	1.33
	G-II	2.61	1.31
For term projects	Academicians	2.51	1.26
	All	3.45	1.32
	G-I	3.56	1.27
	G-II	3.33	1.40
For assignments	Academicians	2.51	1.26
	All	3.44	1.27
	G-I	3.65	1.23
	G-II	3.22	1.30
For taking notes in class	Academicians	1.94	0.88
	All	2.41	1.25
	G-I	2.43	1.25
	G-II	2.39	1.27
For research papers	Academicians	4.03	1.19
	All	3.84	1.37
	G1	3.91	1.29
	G2	3.76	1.30
For thesis writing	Academicians	2.68	1.41
	All	3.63	1.37
	G-I	3.71	1.35
	G-II	3.55	1.40

Note: M=mean, SD=Standard deviation

While the students perceive needing English in order to take notes during classes and writing laboratory reports as not so important, they perceive writing theses and research papers as important and particularly the lower level students also perceive needing writing skills for term projects and doing assignments as important. There were no significant differences in the results between the groups of students, however there were some significant differences in the results between the academicians and the students.

Table 12 - Chi square results of the perceptions between the academicians and students

Writing type	χ^2
Writing laboratory reports	19.519**
Writing term papers	23.759**
Doing assignments	23.672**
Taking notes during the lectures	11.039*
Writing dissertations	26.000**
Writing research papers	2.425

Note: χ^2 =chi square *p< .05 **p< .01

For all items except writing research papers, the differences between the perceptions of the students and academicians are statistically significant. While the students perceive taking notes, doing written assignments and writing laboratory reports, term projects and theses as more important than do the instructors, both groups perceive writing research papers as quite important. For this question, it is possible that while the students may have been considering their future professional needs, academicians may have been considering the students' present needs. If so, it suggests the academicians do not expect them to be able to take notes in class or write theses, lab reports or assignments in English, as it is a Turkish medium university. However, considering their future professional needs they all agree that writing research papers will be very important for them.

Perceptions about Reading Skills

Figure 4 shows a bar graph showing the perceptions of the students and the academicians about the frequency of the need for reading skills, followed by the descriptive statistics in table 13.

Figure 4 - Academicians and students' perceptions of the frequency of the need for English reading skill

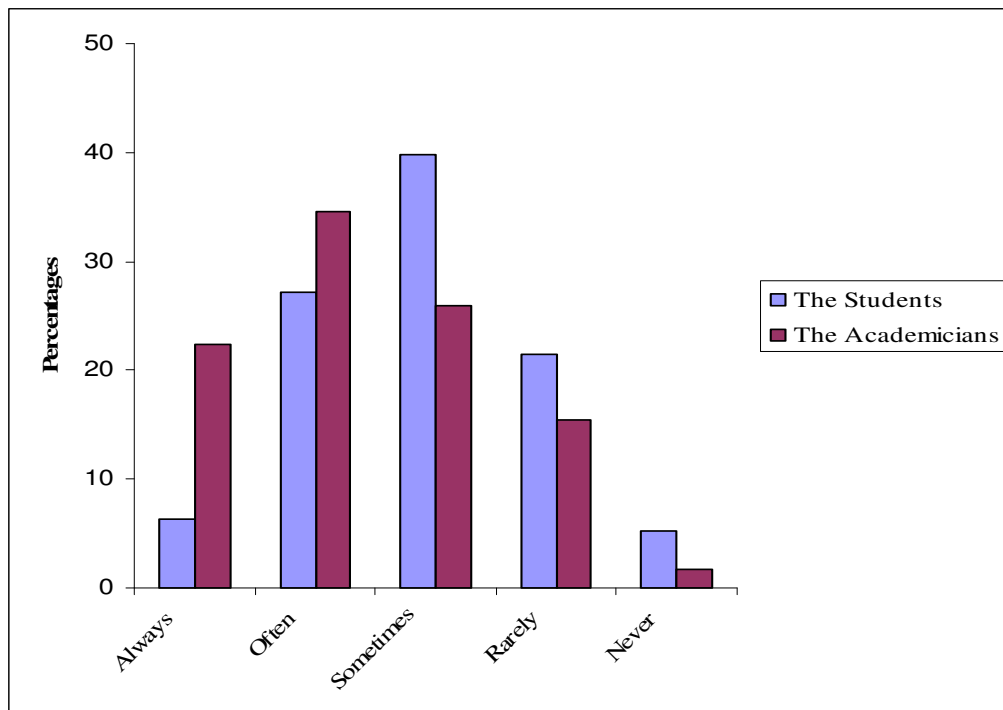


Table 13 - The students and the academicians' perceptions about the frequency of the need for reading skills

	Always		Often		Sometimes		Rarely		Never		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Academicians	13	22.4%	20	34.5%	15	25.9%	9	15.5%	1	1.7%	58	100%
Students	11	6.3%	47	27.1%	69	39.9%	37	21.4%	9	5.2%	173	100%

Note: F=Frequency P=percentage

Over two thirds of the students stated that they needed to read in English only sometimes to never, while 33.4% reported often or always needing to read in English. As for the academicians, about 43% of them stated that the students needed to read in English only sometimes to never and about 57% of them stated that the students always or often needed to read in English. These high percentages for reading skills reflect the respondents' priority rankings of the language skills. The interview with the Dean also confirmed that he felt that the students need reading skills to follow the literature and conduct research for their PBL classes.

According to the chi square results, the differences between the two groups of students in terms of the frequency of the need they feel for reading skill is not statistically significant. However, there is a significant difference between the students and the academicians ($\chi^2 = 15.893$ $p < .003$). The academicians stated stronger feelings about the need for reading in English. My own observations of the academicians suggest that they usually read journals and articles to write research papers, and they may therefore have been reflecting on their own academic needs when answering this question, and therefore noting the students' future needs.

For question C-5, which asked why students need English reading skills, the responses can be seen in table 14 below.

Table 14 - Descriptive statistics for students and the academicians' perceptions about why students need English reading skills

Purpose	Group	M	SD
For textbooks and reference books	Academicians	4.43	1.90
	All	4.38	0.84
	G-I	4.30	0.87
	G-II	4.46	0.77
For exam questions	Academicians	2.55	1.25
	All	2.57	1.40
	G-I	2.65	1.41
	G-II	2.49	1.39
For medical journal and papers	Academicians	4.55	0.65
	All	4.29	0.88
	G-I	4.31	0.91
	G-II	4.27	0.83
For the novel and stories	Academicians	2.70	1.05
	All	3.04	1.21
	G-I	3.15	1.20
	G-II	2.93	1.21
For newspapers	Academicians	3.60	1.25
	All	2.68	1.23
	G-I	2.73	1.22
	G-II	2.63	1.27
For graphs, tables and charts	Academicians	3.60	1.25
	All	3.76	1.08
	G-I	3.92	0.94
	G-II	3.60	1.26

Note: M=mean SD=standard deviation

In general, both academicians and students find reading textbooks and resource books, and medical journals and papers as very important, and reading the information in graphs, tables and charts as important. Both the students and academicians are not sure about reading novels and stories, but while academicians agree that reading newspapers is important, students remain unsure. Here we can see that the students' motivation for reading is instrumental, as they find reading texts from their own academic fields much more important than reading for general purposes. During the interview, the Dean of the faculty also stated that English is important for medical students to follow the medical literature and at least to keep track of disciplinary developments. He also added that despite articles published in other languages, a large majority of articles are published in English, so the students' reading skills in English should be improved. Neither students nor academicians agreed with the need for reading to answer exam questions, however, small percentage of the students and instructors added in to the open ended section that there is the need for reading in English to understand The Residency Exam for Doctors (T.U. S.) for this option. The T.U.S exam is a multiple choice type exam in which the input texts are in English and the questions and choices are in Turkish. The information taken from the administration indicates that few students at PAU fail in this exam; however, some of the students felt it important to state this additional reading need.

According to the chi square results, the difference between the perceptions of the students and the academicians in terms of the importance of reading novels and stories ($\chi^2 = 13.28$ $p < .01$) and reading newspapers ($\chi^2 = 10.32$, $p < .035$) is statistically significant, with the students perceiving novels and stories more important than the

academicians, and the academicians perceiving reading newspapers as more important than the students. For these items, the instructors may have felt that newspapers have potential importance in following recent developments in medicine, while novels and stories have no relevance to their medical studies. There were no statistically significant differences in the results between the two groups of students.

For question C-6, asking the types of reading sub-skills needed, the responses of the students and academicians for the items can be seen in table 15.

Table 15 - Descriptive statistics for students and the academicians' perceptions about types of English reading sub-skills needed

Purpose	Group	M	SD
To understand main idea of reading text	Academicians	4.34	0.9
	ALL	4.13	0.91
	G-I	4.19	0.94
	G-II	4.06	0.87
To read in detail	Academicians	4.25	0.86
	ALL	3.89	1.09
	G-I	3.96	1.10
	G-II	3.81	1.06
To translate	Academicians	4.34	0.82
	ALL	4.23	0.88
	G-I	4.28	0.87
	G-II	4.15	0.89
To interpret the information in diagrams	Academicians	4.31	0.88
	ALL	4.10	0.85
	G-I	4.10	0.84
	G-II	4.09	0.88
To summarize	Academicians	4.06	1.04
	ALL	3.48	1.22
	G-I	3.32	1.30
	G-II	3.64	1.05

Note: M=Mean SD=Standard deviation

For these reading subskills, the students perceived translation (M=4.23), understanding the main idea of reading text (M=4.13), and interpreting the information in diagrams and charts (M=4.10) as important. Although the students perceive all of the items as important, they perceive summarizing as less important than the others with a mean of 3.45. In addition, I find it important to note that

translation was found very important by the students, which is in parallel with the findings of question 15 in part B and with the informal interviews held with both the students and the instructors.

According to Chi square results, a statistically significant difference was found in terms of the reading to make summaries ($\chi^2= 14.013$ and $p< 0.007$). When comparing the students and academicians, although both groups perceive reading to make summaries as important, the academicians find it more important than the students. As the academicians report frequently having to make summaries to write research papers in their professional life, this may explain why they found it more important than the students. In addition, there were no significant differences in the results between the groups of students.

Perceptions about Listening Skills

Figure 5 shows the perceptions of the students and the academicians about the frequency of the need for listening skills, and table 16 for descriptive statistics for the perceptions of the students and the academicians.

Figure 5 - Academicians and students' perceptions of the frequency of the need for English listening skill

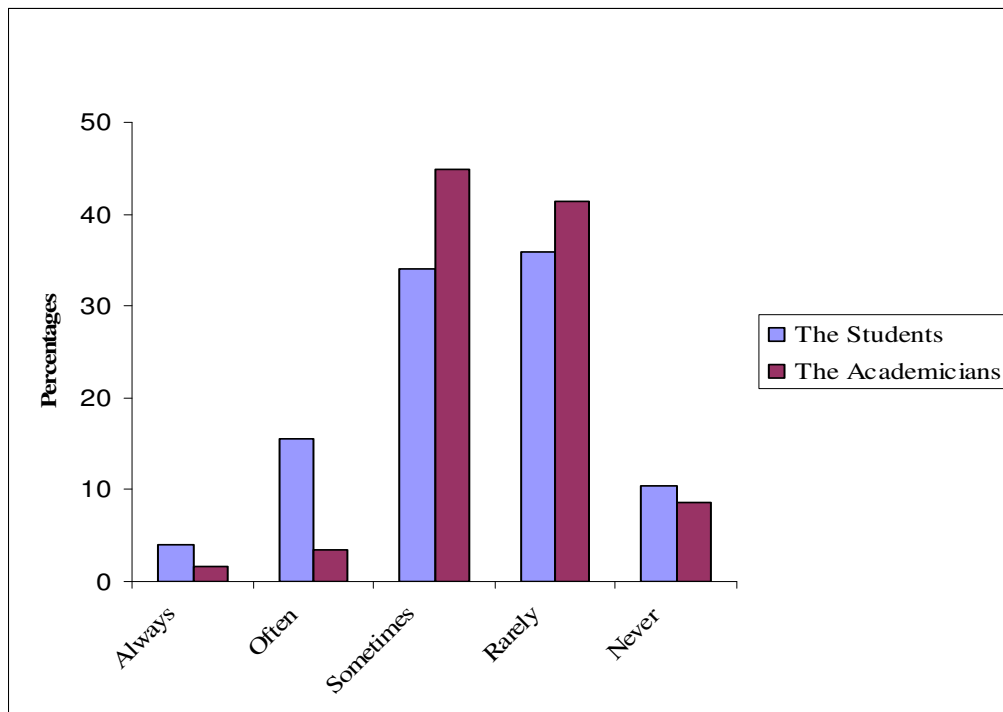


Table 16 - Descriptive statistics for the students and the academicians' perceptions about the frequency of the need for listening skills

	Always		Often		Sometimes		Rarely		Never		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Academicians	1	1.7%	2	3.4%	26	44.8%	24	41.4%	5	8.6%	58	100%
Students	7	4.04%	27	15.6%	59	34.1%	62	35.8%	18	10.4%	173	100%

Note: F=frequency P=Percentage

According to the descriptive statistics above, the majority of the students (80%) stated that they needed to listen in English only sometimes to never, while 20% reported often or always needing to listen in English. Nearly all the academicians (94.8%) stated that the students needed to listen in English only sometimes to never and only 5.2 % stated that the students often or always needed to listen in English. Apparently, academicians do not expect the students to listen to English frequently in the classroom; it may be again because PAU is a Turkish

medium university. There were no significant differences in the results between the groups of students or between students and academicians.

For question C-8, asking why listening skills are important, the responses of the students and academicians for the items can be seen in table 17.

Table 17 - Descriptive statistics for academicians and students' perceptions about why students need English listening skills

Purpose	Group	M	SD
To understand daily conversation	Academicians	2.84	1.32
	All	3.23	1,37
	G1	3.37	1.39
	G2	3.01	1.33
To understand oral instructions of the instructors	Academicians	2.56	1.25
	ALL	2.74	1.32
	G-I	2.83	1.31
	G-II	2.60	1.34
To understand radio and TV programs	Academicians	2.98	1.28
	All	3.38	1.28
	G1	3.49	1.24
	G2	3.19	1.34
To understand discussions on medical issues	Academicians	4.06	1.12
	All	3.84	1.15
	G1	3.95	1.11
	G2	3.66	1.20
To understand seminars and conferences	Academicians	4.43	0.72
	All	3.82	1.13
	G1	3.84	1.16
	G2	3.78	1.07
To understand and take notes during lectures	Academicians	2.63	1.30
	All	2.64	1.30
	G1	2.65	1.32
	G2	2.63	1.28

Note: M=mean, SD=Standard deviation

For the students, understanding seminars and conferences, and being able to understand discussions on medical topics are regarded as the most important reasons why listening skills are needed. Overall similar results were found for the academicians. As the medium of instruction at PAU is Turkish, academicians do not require students to understand English lectures, take notes in English or understand oral instructions of the lecturers in English.

According to the chi square results, the only statistically significant difference between the general perceptions of the students and the academicians in terms of why listening skills are important was about understanding seminars and conferences ($\chi^2=7.277$, $p<.002$), with the academicians placing greater emphasis on this skill. Possibly, as the academicians themselves must attend conferences and understand seminars and conferences held in English, they may think it important for the students' future careers. In addition, the interview with the dean also revealed that the students needed to attend conferences and seminars in English to see the "internal mechanisms" of each discipline. In other words, the students will have better insights into current medical issues by attending medical conferences or seminars. There was no significant difference between the perceptions of the two groups of students.

Perceptions about Speaking Skills

For question C-9, asking the frequency of the need the students feel for English speaking skills, the responses of all the students and the academicians can be seen in figure 6 and table 18.

Figure 6 - Academicians and students' perceptions of the frequency of the need for English speaking skill

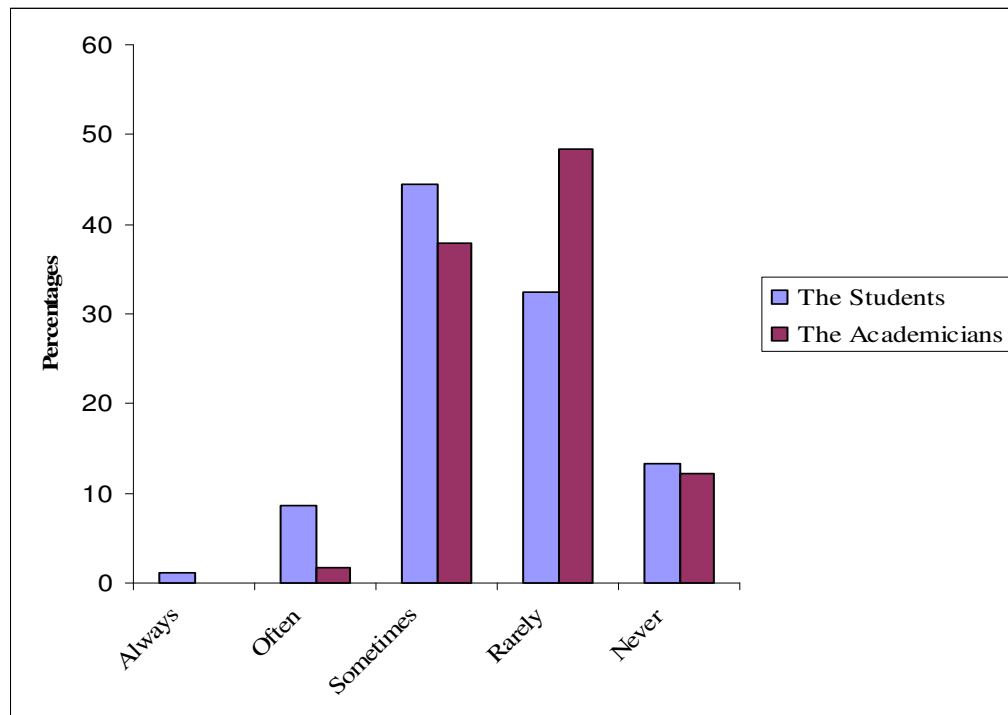


Table 18 - Descriptive statistics for the students and the academicians' perceptions about the frequency of the need for speaking skills

	Always		Often		Sometimes		Rarely		Never		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Academicians	0	0%	1	1.7%	22	37.9%	28	48.3	23	12.1%	58	100%
Student	2	1.2	15	8.7%	77	44.5%	56	32.4%	23	13.3%	173	100%

Note: F=frequency P=Percentage

About 90% of the students stated that they needed to speak in English only sometimes to never, and only about 10% reported often or always needing to speak in English. Again, nearly all the academicians, (98.3%) stated that the students needed to speak in English only sometimes to never and only one of them stated that the students often needed to speak in English. According to chi square results, there

were no significant differences between the results of the students and academicians or between the two groups of students.

For question C-10, which asks why speaking skills are important, the students' responses can be seen in table 19.

Table 19 - Descriptive statistics for the perceptions about why students need English speaking skills

Purpose	Group	M	SD
To participate in class discussions	Academicians	2.43	1.20
	ALL	2.37	1.20
	G-I	2.48	1.22
	G-II	2.15	1.14
To carry on daily conversations	Academicians	2.41	1.06
	ALL	2.67	1.28
	G-I	2.73	1.36
	G-II	2.60	1.16
To present oral reports	Academicians	2.68	1.20
	ALL	3.01	1.30
	G-I	3.09	1.31
	G-II	2.93	1.28
To talk to foreign patients	Academicians	3.60	1.19
	ALL	3.56	1.24
	G-I	3.89	1.13
	G-II	3.22	1.31
To make presentations in seminars and conferences	Academicians	4.03	1.02
	ALL	3.54	1.32
	G-I	3.69	1.30
	G-II	3.39	1.34
For asking and answering questions in class	Academicians	2.58	1.24
	ALL	2.53	1.25
	G-I	2.79	1.28
	G-II	2.31	1.14

Note: M=Mean SD=Standard deviation

The students feel that English speaking skills are important in order to communicate with foreign patients, and to make presentations at seminars and conferences, but they do not place importance on presenting oral reports, carrying on daily conversations, participating in class discussions, and asking and answering

questions in English in class. It may again be mainly because of the fact that PAU is a Turkish medium university. In terms of differences between the two groups of students (1st-3rd and 4th-6th year), only on one point is there a significant difference. First-third year students felt more strongly that it was important to be able to communicate with foreign patients ($\chi^2=13.016$, $p<0.01$). As the upper level students actually work at the hospital, and report not having encountered with such a situation in which they need to talk to foreign patients, they responded less positively to this question. On the other hand, the 1st-3rd year students may assume that they may someday need to speak to foreign patients, as Denizli is a popular tourist destination. In fact, Turkey is a country that attracts many tourists, and they may someday work as doctors at hospitals in cities which are particularly tourist attractions. Both the students and the instructors perceive speaking skills as important to make presentations at seminars and conferences and while the 4th- 6th classes had a neutral attitude to communicate with foreign patients, the 1st- 3rd classes and academicians perceive it as important. Academicians also responded negatively to the items, carrying on daily conversations, participating in discussions and to asking and answering questions in class.

In terms of the difference between the general perceptions of the students and the academicians about why speaking skills are important, only one is statistically significant: making presentations at seminars and conferences: ($\chi^2=10.36$, $p<0.05$). This result is parallel with the result for the similar listening skill question, and again the academicians stated their stronger feelings for the conferences and seminars. As they usually attend seminars and conferences, where they make presentations, and

ask and answer questions, they may feel it is very important for the medical students to be able to do this, too.

For question C-11, asking which language skills are important for the students to be successful in their medical studies, the descriptive statistics of the responses of the students and academicians are given below in table 20.

Table 20 - Academicians and students' perceptions about why language skills are important for the students' success

Purpose	Group	% C	% NC
To read text and reference books and medical journals in English	Academicians	98.3%	1.7%
	ALL	91.3%	8.7%
	G-I	92.4%	7.6%
	G-II	89.5%	10.5%
To present reports orally	Academicians	20.7%	79.3%
	ALL	26.6%	73.4%
	G-I	28.3%	71.7%
	G-II	23.9%	76.1%
To understand lecturers	Academicians	29.3%	70.7%
	ALL	33.5%	66.5%
	G-I	35.9%	64.1%
	G-II	29.9%	70.1%
To have a chat	Academicians	19%	81%
	ALL	31.8%	68.2%
	G-I	29.25%	70.75%
	G-II	35.82%	64.18%
To follow conferences and seminars in English related to medical issues	Academicians	93.1%	6.9%
	ALL	80.92%	19.08%
	G-I	83.96%	16.04%
	G-II	76.12%	23.88%
To be able to present in conferences and seminars in English related to medical issues	Academicians	81.0%	19.0%
	ALL	64.16%	35.84%
	G-I	68.87%	31.13%
	G-II	56.72%	43.28%
To be able to answer exam questions	Academicians	15.5%	84.5%
	ALL	30.06%	69.94%
	G-I	33.02%	66.98%
	G-II	25.37%	74.63%
To be able to write research papers	Academicians	79.3%	20.7%
	ALL	65.90%	34.10%
	G-I	66.98%	33.02%
	G-II	64.18%	35.82%

Note: %C= Percentages for checked items %NC=percentages for items not checked

According to the descriptive statistics, most of the students (91%) perceive reading textbooks, reference books and medical journals in English as important, and the majority consider following (80.92%) and presenting at medical conferences and seminars (64.16%) and writing research papers as important (65.9%). Less than one third of the students on average perceive presenting reports orally, understanding lectures, having a chat, or being able to answer exam questions in English as important. Academicians also perceived the similar items as important.

There were some similarities and some significant differences between students and academicians on this question. The academicians find following ($\chi^2=4.79$, $p<.03$) and presenting ($\chi^2=5.72$, $p<.017$) at seminars and conferences more important than do the students. While both groups find answering exam questions not so important as the other items in the table above, students find it more important than the academicians ($\chi^2=4.72$, $p<.03$). The students may have been considering the Residency Exam for Doctors (T.U.S.), as suggested by the open-ended responses by some students in question C-5 (see table 15). Some students and the academicians also added in the “other, please specify”, needing English for T.U.S. exam and translating medical English. Some of the students reported their concern for T.U.S., as they did for the question 5, table 15, which is about their need for English reading skills. There was no significance between the results of the student groups.

In general, these differences may be explained by the importance the instructors place on academic studies instead of exams. They find activities related to seminars and conferences more important than the students do.

C-Q-12-13 English Language Problems

For question C-12 in the students' questionnaire and C-13 in the academicians' questionnaire, asking about English language problems the medical students face, the descriptive statistics of the responses of the students and academicians are given in table 21.

Table 21 - Academicians and students' perceptions of specific English language problems the medical students have

Problem	Group	M	SD
Poor vocabulary	Academicians	4.22	1.06
	ALL	4.15	1.02
	G-I	4.29	0.87
	G-II	4.01	1.20
Poor grammar	Academicians	3.91	1.11
	ALL	3.15	1.31
	G-I	3.46	1.26
	G-II	2.85	1.31
Poor listening	Academicians	4.01	0.98
	ALL	3.87	1.12
	G-I	3.95	1.08
	G-II	3.79	1.17
Poor speaking skills	Academicians	4.22	0.89
	ALL	3.97	1.08
	G-I	4.04	1.04
	G-II	3.90	1.13
Slow reading speed	Academicians	3.63	1.13
	ALL	3.31	1.22
	G-I	3.39	1.19
	G-II	3.24	1.26
Poor writing skills	Academicians	4.10	1.10
	ALL	3.46	1.12
	G-I	3.68	1.07
	G-II	3.24	1.17
Bad pronunciation	Academicians	3.86	1.06
	ALL	3.36	1.22
	G-I	3.49	1.21
	G-II	3.22	1.22
Complex use of English in reading materials in general	Academicians	3.55	1.09
	ALL	3.71	1.06
	G-I	3.87	0.99
	G-II	3.55	1.16
Complex use of English in medical materials in English	Academicians	3.50	1.17
	ALL	3.65	1.11
	G-I	3.82	1.08
	G-II	3.48	1.15

Note: M=mean SD=standard deviation

According to the descriptive statistics both the students and academicians regarded poor vocabulary (M=4.18), poor listening (M=3.89), and poor speaking

skills ($M= 3.98$) as the most problematic areas for medical students. There were some statistical differences between the general perceptions of the two groups of students. The 1st -3rd year students perceive poor grammar ($\chi^2=9.60$, $p<0.048$), poor listening ($\chi^2=10.33$, $p<0.035$) and the complex use of English in medical materials ($\chi^2=10.56$, $p<0.032$) as more problematic than do the 4th-6th year students.

In terms of grammar problems and poor writing skills, there were statistical differences between the students' and academicians' responses. The academicians find grammar ($\chi^2=15.78$, $p<0.05$) and writing skills ($\chi^2=16.80$, $p<0.05$) as more problematic for the students than the students themselves think. The academicians may have considered their own problems in writing when answering. During the informal interviews with the instructors, they stated that they found writing research papers very problematic for their professional studies.

Finally, question C-12, a "choose all that apply" type question included only in the academicians' questionnaire, was asked to better investigate the professional language needs of the academicians. The descriptive statistics for this can be seen in Table 22 below.

Table 22 - Perceptions of the academicians towards their professional English language needs.

Purpose	% C	% NC
Preparing theses	60.3%	39.7%
Writing research papers	86.2%	13.8%
While participating seminars and conferences held in English at home and abroad	86.2%	13.8%
To follow the literature in my own specialty specifically	93.1%	6.9%
To follow the literature of the new findings, techniques and the treatments in general	87.9%	12.1%
To understand the manuals of medical equipment	72.4%	27.6%

Note: %C= Percentages for checked items %NC=percentages for items not checked

The results indicate that most of the academicians perceive all the items as important, in particular, 93.1 % find English important for following the literature in their own specialty specifically as the most important. This is followed by the need to keep up with the literature of new findings, techniques and treatments (87.9%), to participate in seminars and conferences held in English (86.2%), writing research papers (86.2%), understanding the manuals of medical equipment (72.4%), and preparing theses (60.3%). These findings can enlighten the medical students' future professional and academic needs. They will probably feel these needs, if they become academicians.

Conclusion

In this section the data collected from the Dean of the Medical Faculty, currently enrolled students and content area instructors were analyzed using SPSS. Descriptive statistics with means of the Likert items and the percentages for the multiple choice questions, as well as the chi square results for differences between groups were displayed in the tables and diagrams. In the next chapter, the findings revealed in the data analysis section will be discussed, some suggestions and recommendations will be provided to meet the specific needs of the medical students, and implications for further studies will be provided.

CHAPTER V - CONCLUSION

Introduction

This study investigated the academic and professional English language needs of students at the Medical Faculty of Pamukkale University (PAU). Data were collected via questionnaires to compare the perceptions of the currently enrolled students and the faculty of the medical departments. An interview was held with the Dean of the Medical Faculty to better obtain information about the situational needs of the students, and the expectations and perceptions of the administration about the English classes. The questionnaire data were analyzed using descriptive statistics including percentages, means, as well as chi-squares.

In this chapter, the research questions will be responded to in the discussions of the results of the questions in each section of the questionnaire. The various parties' responses will be discussed in terms of their agreement on certain points and discrepancies among their perceptions of the English language needs of the medical students at PAU.

Findings and Discussions

There were three parts in the questionnaires. The first part of the questionnaire was designed to obtain demographic information about the respondents and was presented in the methodology section when describing the participants. The second part of the questionnaire (Part B), includes the questions asking about the respondents' overall views such as the importance they place on English for their academic studies, knowledge of the English language instructors, current class hours, materials and instructional methods. In the third part (Part C), the respondents

reported their perceptions about the importance of the four language skills and which language skills are most needed for the students' academic and professional success. Finally, some common language problems they face or may be facing were investigated.

Overall Views

Importance of English for the Students' Academic Studies

The students regard both English for general and medical purposes as quite important, giving English for medical purposes somewhat more importance because of their academic studies. The content instructors and the Dean of the faculty also agree that English is very important for these students, indeed, the academicians feel even more strongly about this than the students. In addition, supporting the importance they give to medical English, they agree that medical English instruction should be given beginning from the preparatory class. The academicians are clearly asserting the necessity and importance of English, presumably reflecting the fact that they often have to use English for their own professional studies. As for the students, they may not be so conscious of the importance of English for their professional studies in the future but, in time it is likely they will realize the importance of English more consciously. As one academician, the Dean of the faculty, points out, English is very important to better make use of all the opportunities and facilities of modern medicine and to follow the literature of the new findings and treatments.

The researchers who conducted needs analyses in medical contexts in Turkey (Alagöz, 1994; Akgül, 1991; Boztaş, 1988) also reported that almost all the

students find English very important, particularly medical English for their academic studies.

The Current Class Hours

Neither the students nor the instructors find the current amount of English instruction at PAU sufficient. The current expectation of the administration seems to be that the students should improve their English by studying outside the English classes, using library sources and the internet, and preparing for their content problem-based learning (PBL) classes. Clearly this expectation does not match that of the learners or their content teachers.

For the students to access this medical knowledge from the many medical sites and library sources which are mostly in English, their competency in English is very important. With the limited two hours of Medical English instruction per week, they can not easily gain the competence to be able to read publications in English efficiently. Very early on, Maher's (1986a) analysis of MEDLINE (index medicus) revealed that a considerable number of articles were written in English, and English was having an increasing international importance in medical communication. His assumption that this trend was likely to continue in the future has been enhanced by works such as Benfield and Howard (2001) and Gunnanson (1998, cited in Swales, 2004). The informal interviews held with the content instructors and students also supported his assumption. They stated that they needed English to do research from publications written in English, so English is very important for them.

Fortunately, the Dean seemed to be open to the idea of change, saying that in the future some adjustments can be done in accordance with the studies of the Foreign Language Department or this needs analysis study. So, these findings of the

needs analysis can be submitted to the administration and hopefully, it will be recognized that the students' specific language needs can not be met in such a limited time.

Knowledge of the Instructors to Teach Medical English

In terms of the English language instructors' knowledge to teach medical English, the students, particularly the higher level classes have negative feelings. They do not find the content knowledge of the English instructors adequate to teach English for medical purposes courses and the Dean admitted that the medical instructors in general are not much aware of the medical terminology. He recommended that they should follow the medical literature and expand their knowledge of medical English, especially medical terminology, to better transmit the medical knowledge to the students. He also recommended particularly that the instructors teaching medical English should work cooperatively with some content instructors and exchange their knowledge and experience. ESP teachers' familiarity with the students' discipline is regarded as important (Dudley-Evans & St. John, 1998; Hutchinson & Waters, 1987; Maher, 1986b). Johns and Price-Machado also state that ESP content and particular vocabulary, discourses and processes of the discipline may be challenging for the instructors and suggest that analyzing discourses of the students' discipline, negotiating with faculty, and studying the strategies and language that students need is important. A sense of insecurity and uncertainty can sometimes be observed amongst EMP teachers because of their role as lay persons teaching medical English among medical professionals, so their self-confidence can be restored through the guidance of medical professionals (Maher, 1986b).

Materials and Instructional Methods

In terms of the materials, both the students and the academicians are indecisive about the adequate availability of technological equipment to teach English effectively, and the students do not appreciate their usage by the instructors. The Dean disagrees with the assessment that there is inadequate technological equipment for language learning. In fact, there is some technological equipment in the preparatory class as the Dean said, but there is not any technological equipment particularly available for EMP teaching. As EMP courses are held in a different place, these materials can not be used for the benefit of EMP. So, there seems to be a need for adjustment to improve the availability of the technological materials and training of the instructors to use them.

Secondly, again, in relation to the technological equipment, all the parties, including the Dean, agree that the internet should be used to access medical sites. The internet is an invaluable source for the medical students as it is updated very quickly. The Web is seen as a very useful tool for researching medical topics, with a wealth of updated information (Belcher, 2004; Kimball 1998; Wood & Head, 2004;)

Another reason noted for why the students need English is for reading library sources. Currently, the students have low proficiency to read the nearly 45% of the medical resources in the library of the medical faculty which is in English.

According to the respondents there simply are not enough medical books translated into Turkish. During the interviews they also pointed out the low quality of translations made and therefore, the respondents find it important that the students should be able to read the original English resources. Sezer (2000), who reviewed some articles in MEDLINE, found that there were often serious mistakes which

caused distortions of meaning, again confirming the respondents' arguments. Also, since the pace of translations can not keep up with the pace of the publications in medicine, the medical students need to read English resources to have access to the most updated information.

Despite the respondents' concern, both the students and the academicians regarded translation as the most important method for the students' academic studies. This finding is in agreement with the results of previous needs analysis studies by Alagözlü (1994) and Boztaş (1988). As PAU is a Turkish medium university, the students and faculty may find translation as very important for their studies. As I stated in the materials section, the students have to read English to access to the most recently published resources, however as the medium of instruction is in Turkish, they need to write their assignments or discuss the medical topics in Turkish. As informal interviews revealed, they mostly try to translate them and see translation as an important part of their academic studies.

The other approach investigated was the participants' overall attitudes towards the interactive ways of learning in groups. Both groups regarded this as very important. Although they reacted positively to general questions about group-based interactive learning, the lower level students particularly, did not react as positively to the idea of the PBL method being adapted to use in English language classes as did the academicians. Academicians welcomed the idea that problem-based learning can be adapted in the English classes for the benefit of the students. As the lower level students are new to practicing this way of instruction, they may not appreciate its benefits. For students who are used to teacher-centered models of learning in their previous formal education, they may find a PBL approach hard to adapt to. It is

widely recognized in the literature that for PBL classes, medical students need to do a lot of research as it is enquiry-based, deductive and a form of discovery learning which improves their knowledge, reasoning and self-learning skills (Connely & Senaque, 1999; Harland, 1998, 2003; Huey, 2001; Wood & Head, 2004). As our students are not used to thinking critically and doing much research to construct sound ideas, they may find this approach hard at first. However, the studies conducted to see the effectiveness of PBL revealed that the PBL students had more clinical reasoning and self learning skills and PBL is therefore very much worth the effort (Antephol & Herzig, 1999; Hmelo, 1997; Hmelo et. al 1997). In addition, in these studies the students themselves found PBL as an effective learning method in comparison with a lecture format. As for the medical students at PU, as particularly the upper level students see the benefits of it, they can better understand how useful it is to adapt it to English classes. We can assume that their more positive attitudes come from greater experience using it, and therefore more understanding how it might be useful to adapt it to English classes.

The Four Language Skills

The third section (part C) of the questionnaire was designed to obtain the respondents' opinions about the specific needs for the four language skills, the purposes for which the academicians and medical students use language, and the language problems the students face.

The students and the academicians clearly report that reading is the most frequently needed and the most important skill for the students. This finding is parallel with those of previous needs analyses in medical contexts (Akgül, 1991; Alagözlü, 1994; Boztas, 1988; Chia, Olive, Johnson, Chia, 1998; Elkılıç, 1994).

Unlike the previous needs analyses in medical contexts however, (Akgül, 1991; Alagözlü, 1994; Boztaş, 1988; Chia, Olive, Johnson, Chia, 1998; Elkılıç, 1994) the students in this study ranked speaking as the second most important skill to improve. This finding and the respondents' positive response to the question asking about their attitudes to interactive ways of learning English suggests that these students give importance to using English to communicate interactively and they also want to use it productively rather than just receptively. As for the instructors in this study, they ranked listening as the second most important skill to improve, parallel with the findings of the other needs analyses. Writing was ranked as the least frequently used and needed skill by both groups. This finding is similar to that of Akgül Alagözlü, Elkılıç, and Chia et al's studies.

As for the opinion of Dean, he also agreed that the students need reading skills to follow the literature of the new findings, and treatments in medicine. When asked about the conferences held in English he agreed that students' listening and speaking skills should also be improved to allow them to attend these.

In terms of which reading materials should be read by the students to be successful in their academic studies, both the students and the instructors placed great emphasis on being able to read English textbooks and reference books, then medical journals and papers. They also found being able to read information in graphs, tables and charts as important. This finding is almost the same with the previous needs analysis studies, as the respondents' are giving importance to the reading of subject field materials. However, in Alagözlü's study, reading information in graphs, tables and charts was not seen as important by the students but seen as important by their content area instructors.

In terms of the reading subskills, the academicians perceived translation, understanding the main idea of reading texts, understanding the texts in detail, and interpreting the information in diagrams and charts as very important, and summarizing as important. Students also found all of these subskills as important, though putting more emphasis on translation. The findings are similar to the other needs analysis studies in medical contexts, especially, Alagözlü (1994), who treated translation as a skill. In her study, the students ranked translation as the second most important skill to improve after reading. In terms of the other needs analyses, respondents also found translation as very important for their medical studies. The students in this study did not find summarizing as important as did the academicians. The students' ability to summarize is recognized as important by the academicians, as they reflect on their own need to make syntheses of the literature they read in order to write research articles. So, more emphasis should be given to summarizing in English classes, as the students do not seem fully aware of their potential future need for this sub-skill.

Turning to listening skills and the reason why they are important for the medical students to be successful in their academic studies, understanding seminars and conferences, and following discussions in medical topics are regarded as the most important reasons by all the respondents. The academicians perceived understanding seminars and conferences in English as more important than did the students. As the medium of instruction at PAU is in Turkish, the respondents did not regard understanding and taking notes during lectures as important skills unlike the findings of needs analysis studies conducted in English medium contexts (Akgül, 1991; Boztaş, 1988; Chia et al., 1999; Elkılıç, 1994).

To the question asking why speaking skills are important for the medical students to be successful in their academic studies, both the students and the instructors responded that speaking skills are most important to make presentations at seminars and conferences and to communicate with foreign patients. The academicians in particular perceive listening and speaking for academic reasons, especially for attending seminars and conferences, as important. As they usually need to attend conferences in their professional lives, they find it important for the medical students. The Dean of the faculty found it very important that the students should be brought to medical conferences, as it may be beneficial for them to gain better insights into medical issues. Finally, on speaking skills, unlike the previous need analyses in English medium contexts (Akgül, 1991; Boztaş 1988; Chia et.al., 1999; Elkılıç 1994), students did not find presenting oral reports, ask and answering questions and participating in class discussions in English as important.

In terms of writing skills, as PAU is a Turkish medium university, neither the students nor instructors placed great importance on English writing needs or the related items. The academicians were particularly dismissive of the students' need for writing skills. Only in one category, research papers, did they agree that writing skills were important. Writing research papers was also seen as important by the previous needs analyses conducted in medical contexts. In terms of the other writing purposes, we can conclude the students' 'felt' needs and their real target needs do not match. In fact, the academicians do not expect them to take notes or do assignments in English or write laboratory reports and term projects. Yet, the students particularly the lower level students still found writing term projects and theses important. 1-3rd year students also marked as important the need for writing for general

“assignments”. At this point, we can assume that the students are not much informed about their real needs or they may only feel that in the future they are likely to write term projects or theses in English. Berwick states that sometimes perceived needs may not always be true. The students’ response to this question can also be explained by Brindley’s objective and subjective needs category. Whereas academicians expressed the students’ objective needs as based on the academicians’ own experiences, students may have wanted to express their wants and expectations while answering this question.

For the question asking in general which language skills are important for the students to be successful in their medical studies, most of the students and academicians perceive reading textbooks, reference books and medical journals in English as important, following medical conferences and seminars in medical field and making presentations in them, and writing research papers as important.

In the third section the professional language needs of the academicians themselves were investigated with a question asked only to them. The results indicate that most of the academicians perceive English as most important to follow the literature in their own specialty specifically. This is followed by the need to keep up with the literature of new findings, techniques and treatments in the literature, to participate in seminars and conferences held in English, to write research papers, understanding the manuals of medical equipment, and preparing theses.

The main result of the last two questions is that the students need English both for academic and professional life: to attend conferences, to follow the literature of the new developments in medicine, and to write research papers. There seems to be an agreement in the literature that these needs are the common needs for EMP

learners. In a very early study, Stanchina (1976 cited in Maher, 1986b) described the needs profile as: to understand a native speaker of English, to present at seminars or conferences and to be able to have discussions with conference participants, to read medical journals quickly enough, and to be able to write an abstract or to translate one's own abstract or articles into English. It appears as if over a 30 years period, EMP learners' needs profile has not changed so much.

The English Language Problems the Medical Students Have

According to the descriptive statistics, the students, and academicians alike, regarded poor vocabulary (M=4.18), poor listening (M=3.89), and poor speaking skills (M= 3.98) as the most problematic issues for the students. There were some statistical differences between the general perceptions of the two groups of students. The 1st -3rd year students perceive poor grammar ($\chi^2=9.60$, $p<0.048$), poor listening ($\chi^2=10.33$, $p<0.035$) and the complex use of English in medical materials ($\chi^2=10.56$, $p<0.032$) as more problematic than the 4th -6th year students.

In terms of grammar problems and poor writing skills there were statistical differences between the students' and academicians' responses. The academicians find grammar ($\chi^2=15.78$, $p<0.05$) and writing skills ($\chi^2=16.80$, $p<0.05$) as more problematic.

The grammar structures in medical texts and specific and technical vocabulary were also seen as problematic in the previous needs analyses. We can conclude that they are the most common problems the medical students have in various contexts. In the literature, the teaching of medical terminology, with structural analysis of the term forming elements such prefixes and suffixes (Boztaş, 1988; Erten 2001; Laar, 1998), and teaching technical terminology as well as less

specialized technical vocabulary in the context of case histories and problem-based tasks (Kimball, 1998; Wood & Head, 2004) have been discussed. Some projects, for example, by Essex Community College, and the Institute for the Study of Adult Literacy, were undertaken identifying word parts like prefixes and suffixes to determine the words' meanings, and integrating them with reading, writing, listening and speaking skills. As well as medical terminology, some researchers have tried to analyze the linguistic structures mainly used in doctor-patient communication (Eggly, 2002, cited in Belcher, 2004; Farnill, Todisco, Hayes, 1997, cited in Shi et al., 2001) and conferences (Allright & Allright, 1977, cited in Maher, 1986). All of these works and others are taken into consideration in the following discussion of pedagogical recommendations.

Pedagogical Recommendations

This needs analysis study gave some fruitful results both for Pamukkale University and for similar medical contexts in Turkey. Some of its results are generalizable for medical contexts in other EFL settings.

In terms of the context of PAU, there seems to be a need for curriculum renewal in accordance with the findings of this needs analysis. In the new curriculum to be implemented, the administration's support seems to be very important. First of all, in order to fully meet the academic and professional language needs of the students the English language, class hours per week should be increased. Considering that English lessons are the only source of English for the students at PAU, the class hours after preparatory class should not be so few. For example, at Ankara University, which is also a Turkish medium university, students are provided four hours of English after preparatory class for two years, and in their third year, two

hours. In fact, even this is not adequate to meet these students' specific English language needs, however it is an improvement over the current system at PAU. This model may be applied, with elective English courses after the third year.

In terms of the instructors' medical English knowledge, although the English lesson instructors may make some efforts to teach medical English, it was not seen as adequate by the students, so some training programs or workshops can be provided to them by the administration. As Hutchinson and Waters (1987) point out, ESP teachers should have positive attitudes and willingness, as well as some basic knowledge of the discipline they teach, to achieve meaningful communication between teacher and learner. However, it is not a one-way movement but a negotiation process among English instructors, content area instructors, and students. When considering the context of PAU, there are some academicians who completed their doctorates in the USA or UK. As they became very competent in using English for their academic studies and have also spent time in English language speaking countries, they are the ones who most realistically can guide the training process of the English language instructors. In the design process of the new curriculum to be implemented, English language instructors together with the academicians should first negotiate the Academic English needs of the students, considering their medical PBL classes and the role of English in them. The topic of their PBL modules can be learned from the content teachers and these topics can be used to frame the content of the weekly English lessons. This practice can be very motivating for the students to make connection between what they do in English classes and in their academic studies.

Such changes will require effort on the part of English instructors. The instructors' efforts to improve themselves in medical English teaching should be

appreciated by the administrators, thereby enhancing the instructors' motivation and effectiveness of their courses. In terms of my own experience and observations with the medical faculty, a major issue may be the lack of motivation and willingness of the language instructors. This largely stems from the fact that the medical faculty terms are longer than those of the other faculties at PAU, and the responsibilities and work loads of the language instructors at the medical faculty are harder. A second issue is that, in comparison with the content-area instructors' supplementary financial benefits, the English instructors are not equally supported. Thirdly, when the English instructors are invited to meetings to discuss educational matters and problems, their opinions are not asked and they are not given the opportunity to express them. Overall, these unequal situations may create unwillingness and demotivation of the instructors to teach at that faculty. Therefore, it is important that their self esteem should be restored through involving them in the decision making processes, listening to their opinions, and from time to time listening to their problems.

The administration's support is also very important in terms of the training of the instructors. Their training and orientation should be provided through workshop activities, and conferences, inviting in experienced instructors in the field of English language teaching. As the questionnaire data indicated, there are no experienced ESP instructors, and the English instructors do not use technologies effectively at PAU, so it is apparent that workshops for using technologies and teaching medical English effectively should be held. Teaching this special jargon is not easy and requires ESP instructors at PAU to work very hard to teach it. The administration should encourage and help them to attend some conferences and seminars especially on

teaching English for Specific purposes. Their efforts to improve themselves in this difficult field of language teaching should be appreciated by the administration.

Both the students and academicians agree that students should be taught in separate classes according to their proficiency levels. During the informal interviews some students complained that despite the proficiency exam, students' proficiency levels are mixed. The simple reason for this is that the proficiency exam at the Medical Faculty has been intended only to distinguish between the students who will skip the preparatory class (those who receive the highest grades), and those who will attend the preparatory class (those with the lower grades). In other words, this proficiency exam is not meant to be a test to determine the actual proficiency levels of the students and place them into separate classes accordingly, but to determine which students will attend the prep class. So, there seems to be a need either for a further placement test, or for the results of the current proficiency test to be used for placement purposes. According to the Dean of the faculty, this has not been possible so far, due to the small number of the students enrolled each year. On average, 40 students have been enrolled each year, with 52 students enrolled this year in the medical faculty. In addition, however, a preparatory class for the students of physical therapy was established two years ago, and on average 45 students are enrolled in the physical therapy department. Therefore, considering the total number of the students both at the medical faculty and the physical therapy department, and considering that both departments' domains and the backgrounds of the students are similar, it can be argued that these students should be combined. If we assume that approximately 50% of the students 'pass' the proficiency exam, out of a total of nearly 100 students, the remaining 50 or so students can then be grouped according to their proficiency

levels. In terms of the results of the test—either using the current proficiency test or a new placement test—the students can be divided into two or perhaps three groups: low beginner, upper beginner and perhaps pre-intermediate and appropriate syllabi and materials can be designed for them. The administration's attitude and the availability of the resources such as classes, instructors or equipment are important factors, and possible challenges, to consider at that point. However, the administration still should consider placing the students into separate levels in the preparatory classes, as this will have a positive impact both on the students and the teachers. The students can be better trained and their needs more efficiently met in more homogeneous classes.

In terms of the materials, both the students and the academicians consider that materials in English courses should be relevant to the medical field. So, authentic materials and the related authentic tasks which are relevant to the students' needs, and which enable meaningful communication, should be carefully selected. The negotiation of the task authenticity with the learners is important, as I believe the effectiveness of the materials and tasks to be employed in the class is directly related to the learners' expectations and perceptions. Text and task authenticity should not be separated as the language input and output usually occur inseparably in real world communication situations (Guariento & Morley, 2001). Authentic materials can be adopted and adapted from journal articles, medical sites on the internet, their students' own textbooks and manuals of medical equipment. Especially, research articles selected considering the level of proficiency, interests, and immediate and future needs can be chosen by negotiating with their content instructors and the students themselves. These can be very useful to make the students aware of medical

register. They can also practice reading strategies on these authentic texts. In addition, respondents report reading skills are important to interpret the information in diagrams and chart. Since these are frequently seen in research articles, students can be exposed to authentic ones from research articles, and given practice in learning how to read and interpret them.

The administration should provide the instructors with various technological equipment such as computers, OHP, video, cassette players and so on to be used in EMP classes. Both the students and the instructors should have easy access to the internet. The Internet is very useful in language teaching. By searching on the internet students can find their own materials and teachers can have access to authentic materials (Barnard & Zemach, 2003; Dudley-Evans & St. Johns, 1998). In English classes, the students and instructors can use the internet to search for articles and relevant medical sites together. Informal interviews with some senior students revealed that there are some medical sites which provide useful information for the medical students which are relatively easy to understand and which they have used to do research for their PBL modules, such as www.medicalstudent.com and www.emedicine.com. Some texts can be extracted from these or other sites. After students have obtained the required strategies to cope with understanding these texts, in English classes, they will be more likely to read about the medical topics successfully outside of the English classes, becoming more self-confident and autonomous learners.

The process of adapting, adopting or developing materials should also be considered and evaluation should be made after using them. First of all, there should be a course syllabus indicating what kinds of materials are needed. It can be prepared

in collaboration with the content instructors who teach at the medical faculty. Ideally a material office can be established, and some tasks to develop, adapt and adopt suitable materials should be given to the English instructors who will teach at that faculty. Materials should be selected considering whether they will stimulate and motivate the learners, if they meet the learning objectives or to what extent they will match them, and whether they meet the students' needs. Therefore, it would be practical to prepare checklists as suggested by Brown (1995), so that the materials which do not match the situational needs of the program can be eliminated.

In terms of instruction of the four main skills, in the new curriculum to be developed, reading can be given more priority as it was seen as the most important skill to improve. According to Berardo (2006), in English classes, students' academic reading texts can be made more understandable by eliciting students' existing knowledge in pre-reading activities, reviewing new vocabulary and having the students perform tasks within their competence such as skimming the text to get the main idea of it or scanning for specific information. He also suggests that while-reading tasks should encourage the reader to be active during the reading process and to promote the dialogue between reader and writer, and that post-reading tasks should reinforce the readers' comprehension of the text.

The other skills should also be integrated in the classroom activities in accordance with the needs analysis results. We can conclude that both for speaking and listening, the academicians place utmost importance on attending seminars and conferences, therefore it can be recommended that presentation skills be taught to the students. Tasks of presenting some medical topics can be given to them in English classes and the students can ask questions about their peers' presentations. The

presenters can respond to them, and they can discuss the issues in an interactive way. As for communication with foreign patients, clinical discourse should be taught. Thus, the most common vocabulary, lexical phrases and expressions used by doctors to communicate with patients, that is, medical discourse, should be taught to the students. In classes they can use role play activities in order to practice communicating with foreign patients in real life situations, such as examinations or taking the history of a patient, which require asking questions about common symptoms of the disease, their complaints, and giving instructions and explaining a diagnosis. In terms of listening, real lectures or presentations can be video taped or academicians who have studied or worked in the UK or the USA can read some lectures and their voices can be tape-recorded by the English instructors; then the videos and audiotapes can be used as materials in English classes. In terms of technical and specific vocabulary, systematic presentation of term-forming elements like prefixes and suffixes in medical texts is necessary (Laar, 1998), as the first step to learning medical language is to learn medical words (Yang, 2005).

Although both the students and the faculty of PAU favored translation very much, as well as translation techniques, I believe the other subskills and strategies should also be encouraged. If they can achieve these subskills using reading strategies, they will not need much translation. However, translation can still be useful to understand very complex sentences, so I suggest situational translation, instead of translating all the words and sentences in the passage. For the situations in which they feel in great difficulty, for example, understanding very long sentences with complex grammar structures, translation can be useful for them. The grammar-translation method has been widely used in ELT teaching worldwide. However, it

should be borne in mind that translation of medical texts has its own problems (Newmark 1977, 1979, cited in Maher, 1986b) and may not be so effective as it may cause too much dependence on the practice of translation itself, which is very time consuming for the students (Maher 1986b). So, in order to fully meet the wants and desires in terms of translation in EMP teaching, the instructors who teach at the Medical Faculty should be familiar with the translation techniques and translations of the medical texts, but should certainly not rely on it fully.

The students should be given more problem-oriented tasks which will reflect their cognitive ability and their own academic skills. Academicians and upper classes who are familiar with the benefits of PBL agree that it can be adapted to use in English for medical purposes classes. The aim of PBL is to enable students to understand related content knowledge and to develop the metacognitive skills which will make them good learners and problem solvers (Harland, 2003). Harland states that facilitating learning in PBL groups is different from the traditional teachers' role, and teaching becomes more like research, supervision and mentoring. Maxwell, Bellissimo and Mergendoller (2001) state that in PBL, students build their own learning objectives and select learning resources that are most appropriate to the problem they are seeking to settle. Teachers monitor the students with suggestions for further study or inquiry but do not assign predetermined learning activities. Instead, students research a situation, develop appropriate questions, and produce their own solution to a problem. According to Wood and Head (2004), medical PBL classes can be simulated in English for Academic purposes classes, with the English language instructors being the facilitator of the students' medical studies in English. In these classes, English instructors are not expected to teach them the medical

concepts or topics. Rather their role is to facilitate the students' using English to convey their ideas while discussing and trying to find solutions to medical problems. The necessary grammar or vocabulary items are acquired during the implementation of the tasks. Also, learners acquire good knowledge during their research and can easily integrate it into their existing knowledge. According to the literature, PBL is an effective method in that it not only improves medical students' clinical skills but also their self learning skills, making them more autonomous learners of health care issues (Antepohl & Herzig, 1999; Hmelo, 1998; Shanley, 2007). Using PBL in their English classes can also be beneficial to help the students adapt more easily to the PBL approach when they face it in their medical classes.

Limitations

For this study, data were collected only from the 173 enrolled students, 58 academicians and the Dean of the medical faculty. In ESP teaching, all the stakeholders' needs and expectations are very important, and it is important to collect data from various sources. However, in this study, no data were collected from the English language instructors or from the students at the preparatory class. For the former group, the first reason for not including them was that there are only four instructors currently teaching at the medical faculty and they do not regularly teach at that faculty. Secondly, in terms of the students' academic and professional language needs, the perceptions of the students themselves, academicians and the dean were regarded as more important and assumed to provide more realistic results. If there had been some regular language teachers who taught medical English, more information could have been obtained from them as to the students' language learning needs, their situational needs, their own needs in terms of training and their

wants and desires in the language teaching environment. For this study, however, I depended on my own observations, my experiences as a teacher in the medical faculty, and existing information I obtained from the secretary and librarian of the medical faculty.

The prep school students were not involved in this study. Because they are at the preparatory class and will not be enrolled at the faculty until the following year, it was considered that they may not be aware of the academic English needs in the faculty.

Recommendations for Further Research

Further studies can be done as follow up steps after this needs analysis, considering such things as materials development, teaching, and assessment. Also, further research can be done on the adaptation of the problem-based learning model to English classes and its effectiveness. Some case studies can be done first assigning some problem tasks to the students and they can use English as a communication vehicle while discussing the problems. Perceptions of the students about the contribution of this type of learning into their academic studies can be sought. In addition, since needs analyses should be ongoing (Graves, 2000; Hutchinson & Waters, 1987; Nunan, 1988), future studies should be conducted during or after the implementation of a new curriculum at PAU to better assess the students' possible changing needs and their satisfaction or dissatisfaction with the changes made.

Conclusion

In this needs analysis students' needs were investigated from the points of views of students themselves, content area instructors, specializing doctors, and

administrators. The outcomes of this study can be made use of by the English lesson instructors, and the administration, for the purpose of renewing the English language lesson curriculum.

The most important finding of this study is that medical students at Pamukkale University (PAU) need to improve their English reading skills in order to do research for their problem-based learning classes. However, their needs have not been fully met because of the limited classroom hours, and lack of technological access, and inadequately trained EMP instructors at PAU. Similar with the findings of previous research and previous needs analyses, this study also found that vocabulary and grammar structures in medical texts are problematic for the students and that medical students regard translation as an important skill. The most notable change in the perceptions of English needs is that the medical students at PAU perceive English speaking skills and an interactive way of learning in groups as very important. These indications of the students' 'wants' and are in line with the aims of communicative language teaching and should be addressed in the English language curriculum design at the PAU Medical Faculty.

This needs analysis study can constitute an example to similar medical faculties, both in Turkey and in other EFL settings, which also wish to explore their students' specific needs. The pedagogical implications presented here can be applicable to them, in particular those schools in which a problem-based learning approach is practiced.

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APPENDICES

APPENDIX A

Sample of the Interview in English

Çağla: I am an instructor at Pamukkale University. Now, I am an MA student at the teaching of English as a Foreign Language Master Program of Bilkent University. My thesis is about identifying the needs of the medical students at Pamukkale University and I would like to ask your opinions about the teaching of English at Pamukkale University as an administrator.

Dean: Ok, you can ask me and I will answer your questions.

Çağla: In your opinion to what extent is English important for the medical students at Pamukkale University and which language skills are necessary to improve?

Dean: English is very important for the students at the Medical Faculty. In order to benefit from the opportunities of modern medicine and to follow the medical literature and at least to keep track of the developments, to follow the articles, papers in the medical field. Of course there are articles in other languages but as they are mostly in English, their reading skills in English should be improved.

Çağla: Have there been conferences held in English at Pamukkale University? Do you expect the students to attend such conferences?

Dean: Yes, they need to attend such conferences from time to time. It is important for them to understand the internal mechanisms of each discipline.

Çağla: Then, they may need to attend these conferences and ask related questions to the speakers, so they also need academic listening and speaking skills don't they?

Dean: Yes, sure.

Çağla: Do you think that the current amount of the English language lessons are adequate enough to meet the students' such needs?

Dean: At the medical faculty there is a preparatory class and some courses to understand texts.

Çağla: However, after preparatory class the students take only two hours of English. Do you think they can be proficient enough to understand this medical jargon in such a limited time?

Dean: As there is a preparatory class, instead of increasing the hours of English instruction, I suggest that the students who pass the preparatory class should improve their English by reading the medical sources at the library and the internet. In fact,

whether you increase the hours of the lessons or not, they must follow the literature to make preparations for their lessons, as at our university the problem-based approach is practised.

Çağla: What can be the role of the English language and content area instructors in problem based learning?

Dean: The instructors should be equipped with the necessary skills to make presentations abroad.

Çağla: Should the English language instructors know about the medical literature?

Dean: Sure, in order to help the students in a more efficient way. At Pamukkale University the medium of instruction is Turkish and I think it must be so, the lecturers could be proficient enough to teach in English if the medium of instruction were in English. They should speak well if not so fluent. This can be achieved through following the literature well.

Çağla: What do you think about the medical knowledge of the English language instructors? They may not be knowledgeable in medical field? Do you think that the content instructors and the language instructors should work together?

Dean: Yes, I think it is the most important shortcoming. English language instructors may not have knowledge about medical English or other disciplines. For example, they translate 'small intestine' as 'küçük bağırsak', 'probe' as 'sonda'.

Çağla: (interrupting) it is necessary to know medical terminology well in order to know medical English well.

Dean: Yes. From time to time, English language and content instructors should come together and work to make it easier to teach medical language that is to enable purposeful learning.

Çağla: What is your opinion about the instructional materials for language instructors? Should they be related to the medical field?

Dean: Yes, sure. The materials on the internet should also be used.

Çağla: Is the available technological equipment adequate for this purpose?

Dean: Yes, adequate.

Çağla: How can the English instructors use the internet?

Dean: From time to time they can use the articles from the internet. For this purpose, they should monitor, that is they should facilitate the review of a case or a pathological system. A planning can be made for this.

Çağla: Are there separate classes according to the proficiency levels of the students?

Dean: As the number of the students is not enough for this, there is only one class.

Çağla: Is the amount of English language lessons determined by the legislation?
Well, two hours is too little... Isn't it possible to increase the amount of the lessons?

Dean: Well, actually, the Institute of Foreign Languages must determine the amount of the lessons by first determining which discipline needs how much English instruction. However, there hasn't been such an effort, there may be such studies of the Institute of Foreign Languages for this purpose in upcoming years.

Çağla: I am conducting a study right in this field, to determine the language needs of the students to make necessary adjustments.

Dean: Yes, your study may determine it.

Çağla: Can the necessary adjustments for this purpose be done if I submit to you the findings of my study?

Dean: Sure.

Çağla: Do you have further opinions and considerations?

Dean: I think learning a foreign language is an indispensable part of modern medicine. The students who are proficient in English continue their success after they have graduated. Eee, well actually today, English is necessary to provide optimum health service. We are in a stage where making practice is difficult with the information from ordinary textbooks. Naturally, it effects the health policies in certain degrees. There lie some constraints caused by not being able to comprehend the modern medicine in the efforts of Ministry of Health to make policies in developments in 'medical education', 'transformation in health care'. They can be dealt within the foreign language education and the applications parallel to it.

.....

Çağla: Thank you. Thank you for aloting your time for me.

Dean: I thank you, I hope it will go smoothly.

APPENDIX B

Görüşmenin Türkçe Örneği

Çağla: Pamukkale Üniversitesinde İngilizce okutmanıyım. Bilkent'te İngilizce dilinin öğretimi programında yüksek lisans öğrencisiyim. Tez konum Pamukkale Üniversitesindeki tıp öğrencilerinin İngilizce dil ihtiyaçlarının belirlenmesi ve bir idareci olarak görüşlerinizi almak istiyorum.

Dekan: Tamam, siz bana sorun sorularınızı ben yanıtlıyım.

Çağla: Pamukkale Üniversitesindeki Tıp öğrencileri için İngilizce ne derece önemli ve hangi dil becerilerinin geliştirilmesi gerekiyor?

Dekan: İngilizce çok önemli Tıp öğrencileri için. Çağdaş tıbbın bütün imkanlarından yararlanmak ve literatürü takip edebilmek için ve en azından tıp alanında çıkan makaleleri, yazıları, (ıı..) yenilikleri İngilizce olarak takip etmek gerekiyor. Tabi diğer dillerde de var ama çoğunluk İngilizce olduğu için İngilizce okuma becerilerinin geliştirilmesi gerekiyor.

Çağla: Peki Pamukkale Üniversitesinde İngilizce olarak yapılan konferanslar oluyor mu? Öğrencilerin katılmasını bekliyor musunuz?

Dekan: Evet, onların zaman zaman bu tür konferanslara katılması gerekiyor. En azından her disiplinin kendi içindeki akışını görmeleri açısından da önemli.

Çağla: O zaman öğrencilerin bu konferanslara katılıp ilgili soruları sormaları da gerekebilir yani akademik dinleme ve konuşma becerileri de gerekebilir değil mi?

Dekan: Tabi, şüphesiz.

Çağla: Sizce Pamukkale Üniversitesindeki mevcut İngilizce saatleri öğrencilerin bu ihtiyaçlarını karşılamak için yeterli mi?

Dekan: Tıp Fakültesinde hazırlık sınıfı var ve metinleri anlamaya yönelik dersler var.

Çağla: Ancak hazırlıktan sonra haftada iki saat İngilizce dersi alıyor öğrenciler. Bu kısıtlı zamanda öğrenciler medikal jargonu anlayabilecek düzeye gelebiliyorlar mıdır?

Dekan: Hazırlık sınıfı olduğu için medikal İngilizce'nin saatinin arttırılmasından ziyade, ben hazırlık sınıfını geçmiş öğrencilerin İngilizce dersi dışında kendi akademik çalışmalarını için kütüphanedeki kaynakları ve internetteki sitelerdeki kaynakları okuyarak geliştirmeleri gerektiğini düşünüyorum. Zaten bizim fakültede probleme dayalı öğrenme olduğu için, öğrenciler ders saatini arttırsanız da

arttırmazsanız da derslerine hazırlanmak için İngilizce literatürü takip etmek zorundalar.

Çağla: Probleme dayalı öğrenme konusunda tıp hocaları ile İngilizce hocalarına düşen görev ne olabilir?

Dekan: Hocaların da en azından yurt dışında konferans verebilecek şekilde donanmış olması lazım.

Çağla: İngilizce hocalarının da literatürden haberdar olması gerekiyor mu?

Dekan: Tabi, onların da öğrencilere daha iyi yardımcı olması için. Burada eğitim dili Türkçe, ki öyle olması gerekiyor bence. Öğretim üyelerinin de eğitim dili İngilizce olsaydı ders verebilecek yeterlilikte olmaları gerekiyor. Çok akıcı olmasa da iyi konuşmaları gerekiyor. Bunun da yolu İngilizce literatürü iyi takip etmekten geçiyor.

Çağla: İngilizce hocalarının tıp bilgisi hakkında ne düşünüyorsunuz? Onlar tıp alanında bilgi sahibi olmayabilirler. Tıp hocalarıyla İngilizce hocaları birlikte çalışmalı mı?

Dekan: Evet en büyük eksiklik de bu bence. İngilizce hocaları medikal İngilizce konusunda ya da diğer disiplinler konusunda bilgi sahibi olmayabilirler. Bir örnek vereyim 'small intestine' yerine 'küçük bağırsak' diyorlar', 'probe' 'sonda' diye geçiriyorlar.

Çağla: (Araya girer)Tabi medikal İngilizce'nin iyi bilinmesi için medikal terminolojinin de iyi bilinmesi gerekiyor.

Dekan: Evet.

Dekan: Zaman zaman İngilizce hocaları ve tıp hocalarının bir araya gelip medikal dili öğrenciye aktarmada kolaylık sağlamak yani amaca yönelik öğrenmeyi sağlamak için çalışmaları gerekiyor.

Çağla: Peki İngilizce ders materyalleri hakkında ne düşünüyorsunuz? Tıp alanıyla ilgili olmalı mı?

Dekan: Evet tabi. İnternetteki materyaller de kullanılmalı.

Çağla: Peki bu konuda mevcut teknolojik ekipmanlar yeterli mi?

Dekan: Evet yeterli.

Çağla: İnterneti nasıl kullanabilirler?

Dekan: Zaman zaman İngilizce hocaları internetten belirli makaleleri kullanabilirler.

Bu konuda moniterize etmeleri gerekiyor yani örnek bir olgunun, patolojik bir sistemin taranması konusunda yardımcı olmaları gerekiyor. Bu konuda bir planlama yapılabilir.

Çağla: Hazırlıkta düzey farklılıklarına yönelik ayrı ayrı sınıflar var mı?

Dekan: Sayı yeterli olmadığı için tek bir sınıfta ders yapılıyor.

Çağla: Ders saatleri yönetmelik olarak mı iki saat? Yani iki saat bence çok az da... Ders saatlerinin artırılması mümkün mü?

Dekan: 1... aslında bu alanda Yabancı Diller Yüksek Okulunun hangi disiplinin ne kadar İngilizce İhtiyacı olduğunu belirleyip ona göre ders saatlerinin belirlenmesi gerekiyor. Ancak Pamukkale Üniversitesinde şu ana kadar böyle bir çalışma olmadı ama önümüzdeki yıllarda Yabancı Diller Yüksek Okulunun böyle çalışmaları olabilir.

Çağla: İşte ben de tam bu alanda bir çalışma yapıyorum, öğrencilerin dil ihtiyaçlarının belirlenip gerekli düzenlemenin yapılması için.

Dekan: Evet bu çalışmanız belirleyebilir.

Çağla: Peki ben bu çalışmanın sonuçlarını size sunduğum takdirde buna yönelik gerekli düzenlemeler yapılabilir mi?

Dekan: Tabi.

Çağla: Peki sizin bu konuda eklemek istediğiniz başka görüş ve fikirleriniz var mı?

Dekan: Bence yabancı dil öğrenmek çağdaş tıppın olmazsa olmazıdır. İngilizcesi iyi olan öğrenciler mezuniyetten sonra da başarı gösteriyorlar. (ee..) Aslında günümüzde optimum sağlık hizmetinin de verilebilmesi için gerekiyor. Klasik ders kitaplarından alınan bilgilerle uygulama yapmanın zor olduğu bir dönemdeyiz. Bu tabi sağlık politikalarını da belirli oranlarda etkiliyor. Sağlık Bakanlığının da 'tıp eğitiminde yenilikler', 'sağlıkta dönüşüm' gibi konulardaki politika üretme çabalarının temelinde modern tıppı orijinal haliyle yakalayamamanın getirdiği sıkıntılar var.. Bunlar yabancı dil eğitimi ve bunun paralelindeki uygulamalarla halledilebilir.

.....

Çağla: Teşekkür ederim, bana zaman ayırdığınız için teşekkür ederim.

Dekan: Ben teşekkür ederim, sana kolay gelsin.

APPENDIX C

Questionnaire for Students

Dear participant,

I am a student in the Master's of Arts in the Teaching of English as a Foreign Language Program at Bilkent University. For my master thesis, I am conducting an analysis of English language needs of Medical Faculty students at Pamukkale University. The aim of this questionnaire is to obtain necessary information for this purpose. Cooperation is voluntary and your completion of the questionnaire is assumed to grant permission to use your answers for this study. Thank you in advance for your cooperation and for taking the time to answer the questions fully and meticulously.

Çağla TAŞÇI

Bilkent University

Master of Arts in Teaching English as a Foreign Language MA TEFL 2007

A) Demographical Information

(Please circle your answers)

1. Your gender: a) Male b) Female
2. Your Age:.....
3. Which class do you attend?
 - a) Preparatory b) First c) Second d) Third e) Fourth f) Fifth g) Sixth
4. Which of the following high schools did you graduate from?
 - a) General high school
 - b) Industry and Occupation high school
 - c) Commercial high school
 - d) High schools which give intensive education such as Anatolian high schools.
 - e) Other (Please specify) _____

B. The following questions aim to identify your opinions about learning English at the Medical Faculty of Pamukkale University. Please use the following scale for questions from 1 to 21. Please circle your answers.

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

1. General purposes English is important for medical students at PAU.	1	2	3	4	5
2. Medical purposes English is important for medical students at PAU.	1	2	3	4	5
3. General English instruction should start from the preparatory classes.	1	2	3	4	5
4. Medical English instruction should start from the preparatory classes.	1	2	3	4	5
5. The materials in medical students' English courses should be relevant to the medical field.	1	2	3	4	5
6. The current amount of English instruction given to medical students at PAU is adequate to meet their academic and professional English language needs.	1	2	3	4	5
7. Even if students fail in English courses in preparatory class they should be allowed to continue their medical education.	1	2	3	4	5
8. The students should be taught in separate classes according to their proficiency levels.	1	2	3	4	5
9. English classes should continue during the medical students' academic medical education.	1	2	3	4	5
10. English language instructors should use a method in which students can learn English interactively in groups.	1	2	3	4	5
11. Problem based learning (PBL) should be adapted to use in English for medical purposes courses.	1	2	3	4	5
12. The medical students at PAU have the language capacity to read the English language medical sources in the library.	1	2	3	4	5
13. In order to make use of the medical sites on the internet, one should have a high level of English.	1	2	3	4	5
14. Translation skills are important to develop learners' overall language competence for medical studies.	1	2	3	4	5
15. There are adequate English resources and textbooks translated into Turkish.	1	2	3	4	5
16. It is important for medical students to be able to read the original English texts.	1	2	3	4	5
17. English language instructors are knowledgeable enough to teach English for medical purposes courses.	1	2	3	4	5
18. At present, English language instructors at PAU consider medical academic English language needs when selecting the materials for their lessons.	1	2	3	4	5
19. English language instructors should use internet in English classes.	1	2	3	4	5
20. At PAU, there is adequate technological equipment (TV, video, radio, internet, D.V.D.) available for language teaching.	1	2	3	4	5
21. At PAU instructors use the technological equipment (TV, video, radio, internet, D.V.D.) available for language teaching) effectively.	1	2	3	4	5

C. The following questions aim to identify your opinions about learning and using the four language skills--reading, writing, speaking and listening .

1. Which of the following English language skills do you think are the most important for medical students? (Please put them in order of importance assigning number 1 to the most important, number 4 to the least important.)

listening () speaking () reading () writing ()

2. How often do you think the medical students at PAU need English writing skills?

a) always b) often c) rarely d) never

3. Please use the following scale to determine why English writing skills are necessary for medical students. (Please circle your answers)

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To write laboratory reports	1	2	3	4	5
To write term projects	1	2	3	4	5
To do homework	1	2	3	4	5
To take notes during lectures	1	2	3	4	5
To write essays	1	2	3	4	5
To write research papers	1	2	3	4	5
Others (please specify)	1	2	3	4	5

4. How often do you think the medical students at PAU need English writing skills?

a) always b) often c) rarely d) never

5. Please use the following scale to determine for which of these reading materials English reading skills are important. (Please circle your answers)

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To read textbooks and resource books	1	2	3	4	5
To read exam questions	1	2	3	4	5
To read medical journals and articles	1	2	3	4	5
To read novels and stories	1	2	3	4	5
To read newspapers and journals	1	2	3	4	5
To read graphs, charts and tables	1	2	3	4	5
Others (please specify)	1	2	3	4	5

6. Please use the following scale to determine why reading skills are necessary for medical students. (Please circle your answers).

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To understand the main ideas of reading texts	1	2	3	4	5
To read texts in detail.	1	2	3	4	5
To translate texts	1	2	3	4	5
To interpret the information in diagrams and charts	1	2	3	4	5
To summarize	1	2	3	4	5
Others (please specify)	1	2	3	4	5

7. How often do you think the medical students at PAU need English listening skills?

a) always b) often c) rarely d) never

8. Please use the following scale to determine why listening skills are necessary for medical students. (Please circle your answers)

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To understand daily conversations.	1	2	3	4	5
To follow spoken instructions from lecturers.	1	2	3	4	5
To understand radio and TV programs.	1	2	3	4	5
To understand discussions on medical issues	1	2	3	4	5
To understand seminars, conferences.	1	2	3	4	5
To understand and take notes during lectures.	1	2	3	4	5
Others (please specify)	1	2	3	4	5

9. How often do you think the medical students at PAU need English speaking skills?

a) always b) often c) rarely d) never

10. Please use the following scale to determine why speaking skills are necessary for medical students. (Please circle your answers)

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To participate in class discussions	1	2	3	4	5
To carry on daily conversations	1	2	3	4	5
To present oral reports	1	2	3	4	5
To talk to foreign patients	1	2	3	4	5
To make presentations at seminars and conferences	1	2	3	4	5
To ask questions in class.	1	2	3	4	5
Others (please specify)	1	2	3	4	5

11. Which of the following English language skills are important for the students' success in medical studies? (Check whichever are appropriate.)

- reading to understand English textbooks, resource books and medical journals.
- presenting oral reports
- understanding class lectures
- carrying on conversations
- to follow conferences and seminars held in English related to medical field
- to be able to present in conferences and seminars in English related to medical issues
- writing exam answers
- writing research papers
- Others (please specify)

12. Please use the following scale to determine what English language problems medical students may currently be facing in their medical studies

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly Agree

Poor vocabulary	1	2	3	4	5
Poor grammar	1	2	3	4	5
Poor listening comprehension	1	2	3	4	5
Poor speaking skill	1	2	3	4	5
Slow reading speed	1	2	3	4	5
Poor writing skill	1	2	3	4	5
Poor pronunciation	1	2	3	4	5
The complex use of English in reading materials in general	1	2	3	4	5
The complex use of English in reading materials in medicine.	1	2	3	4	5
Others (please specify)	1	2	3	4	5

APPENDIX D

Öğrenciler için Anket

Sayın katılımcı,
Bilkent Üniversitesi'nde Yabancı Dil Olarak İngilizce Öğretimi Yüksek Lisans Programında öğrenciyim. Yüksek lisans tezim için, Pamukkale Üniversitesi Tıp Fakültesindeki öğrencilerin İngilizce dil gereksinimleri konusunda araştırma yapmaktayım. Bu anketin amacı, öğrencilerin ihtiyaçlarını belirlemek için gerekli bilgileri elde etmektir. Ankete katılmak isteğe bağlıdır. Anketi doldurmanız cevaplarınızın bu çalışmada kullanılmasında izin verdiğiniz anlamına gelmektedir. Soruları eksiksiz biçimde ve titizlikle cevaplandırmak için zaman ayırdığınızdan dolayı şimdiden teşekkür ederim.

Çağla TAŞÇI
Bilkent Üniversitesi
Yabancı Dil olarak İngilizce Öğretimi Bölümü- MA TEFL 2007

B) Demografik Bilgiler (Lütfen cevaplarınızı daire içine alınız.)

1. Cinsiyetiniz: a) Erkek b) Kız
2. Yaşınız: _____
3. Kaçınıcı sınıfa devam ediyorsunuz?
a) Hazırlık b) Birinci c) İkinci d) Üçüncü e) Dördüncü f) Beşinci g) Altıncı
4. Mezun olduğunuz lise veya dengi okulun türü nedir?
a) Düz lise
b) Endüstri ve meslek lisesi
c) Ticaret lisesi
d) Anadolu lisesi ve özel liseler gibi yoğun İngilizce eğitimi veren liseler.
e) Diğer (lütfen açıklayınız).....

C) Aşağıdaki sorular Pamukkale Üniversitesi (PAU) Tıp Fakültesindeki İngilizce öğrenimi hakkındaki görüşlerinizi belirlemek içindir. 1'den 22'ye kadar olan soruları aşağıdaki ölçeği kullanarak cevaplayınız. Lütfen cevaplarınızı daire içine alınız.

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum 5. Kesinlikle katılıyorum

1. Genel amaçlı İngilizce'yi öğrenmek PAU'deki tıp öğrencileri için önemlidir.	1	2	3	4	5
2. Tıbbi amaçlı İngilizce'yi öğrenmek PAU'deki tıp öğrencileri için önemlidir	1	2	3	4	5
3. Genel amaçlı İngilizce eğitimi hazırlık sınıflarından itibaren başlamalıdır.	1	2	3	4	5
4. Tıbbi amaçlı İngilizce eğitimi hazırlık sınıflarından itibaren başlamalıdır.	1	2	3	4	5
5. Tıp öğrencilerinin İngilizce derslerindeki ders materyalleri tıp alanıyla ilgili olmalıdır.	1	2	3	4	5
6. PAU' deki tıp öğrencilerine verilen İngilizce derslerinin mevcut saatleri, tıp öğrencilerinin akademik ve mesleki İngilizce dil ihtiyaçlarını karşılamak için yeterlidir.	1	2	3	4	5
7. Tıp öğrencilerine hazırlık sınıfındaki İngilizce derslerinden kalsalar bile tıp eğitimlerine devam etmelerine izin verilmelidir.	1	2	3	4	5
8. PAU'de hazırlık sınıfında İngilizce dil düzeyi farklı tıp öğrencileri ayrı sınıflarda öğrenim görmelidir.	1	2	3	4	5
9. İngilizce dersleri, öğrencilerin üniversitedeki tıp eğitimleri boyunca devam etmelidir.	1	2	3	4	5
10. İngilizce öğretim elemanları öğrencilerin grup çalışmaları içinde İngilizce'yi daha interaktif bir şekilde öğrenebilecekleri bir yöntem kullanmalıdırlar.	1	2	3	4	5
11. Probleme dayalı öğrenme (PDÖ) yönteminin tıbbi amaçlı İngilizce derslerinde de kullanılmalıdır.	1	2	3	4	5
12. PAU' deki tıp öğrencilerinin İngilizce dilindeki tıbbi kaynakları okuyabilecek düzeyde dil yeteneği vardır.	1	2	3	4	5
13. İnternetteki tıpla ilgili sitelerden yararlanabilmek için bir öğrencinin iyi düzeyde İngilizce bilgisinin olması gerekir.	1	2	3	4	5
14. Tıpla ilgili çalışmalar için, öğrencilerin çeviri becerilerini geliştirmek önemlidir.	1	2	3	4	5
15. Türkçe'ye çevrilen yeteri miktarda kaynak kitap ve ders kitabı mevcuttur.	1	2	3	4	5
16. Tıp öğrencilerinin orijinal İngilizce metinleri okuyabilmeleri önemlidir.	1	2	3	4	5
17. İngilizce öğretim elemanları tıbbi amaçlı İngilizce derslerini verebilecek düzeyde bilgi sahibidirler.	1	2	3	4	5
18. Şu anda PAU' deki İngilizce öğretim elemanları ders materyallerini seçerken öğrencilerin akademik İngilizce ihtiyaçlarını göz önünde bulundururlar.	1	2	3	4	5
19. İngilizce öğretim elemanları İngilizce derslerinde interneti kullanmalıdırlar.	1	2	3	4	5
20. Pamukkale Üniversitesi'nde dil öğretimi için yeteri miktarda teknolojik araçlar (TV, video, bilgisayar, D.V.D.) mevcuttur.	1	2	3	4	5
21. Pamukkale Üniversitesindeki İngilizce öğretim elemanları teknolojik araçları (TV, video, bilgisayar, D.V.D.) etkin bir şekilde kullanmaktadırlar.	1	2	3	4	5

C) Aşağıdaki sorular dört dil becerisinin -okuma, yazma, konuşma ve dinleme- öğrenilmesi ve kullanılmasıyla ilgili görüşlerinizi belirlemek içindir.

1. Aşağıdaki dil becerilerinden hangisinin PAU’de öğrenim gören bir tıp öğrencisi olarak en önemlisi olduğunu düşünüyorsunuz? (Lütfen en önemliye 1, en az önemliye 4 numarasını vererek önem sırasına koyunuz.)

dinleme () konuşma () okuma () yazma ()

2. İngilizce yazmaya ne sıklıkta ihtiyaç duyuyorsunuz?

a) her zaman b) sıklıkla c) bazen d) nadiren e) hiç bir zaman

3. İngilizce yazma becerisinin size göre neden önemli olduğunu belirlemek için lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum 5. Kesinlikle katılıyorum

Laboratuar raporları yazmak için	1	2	3	4	5
Dönem projelerini yazmak için	1	2	3	4	5
Ödev yapmak için	1	2	3	4	5
Derslerde not almak için	1	2	3	4	5
Tez yazmak için	1	2	3	4	5
Araştırma makaleleri yazmak için	1	2	3	4	5
Diğer (lütfen belirtiniz)	1	2	3	4	5

4. İngilizce okumaya ne sıklıkta ihtiyaç duyuyorsunuz?

a) her zaman b) sıklıkla c) bazen d) nadiren e) hiç bir zaman

5. Aşağıdaki okuma materyallerinden hangileri için İngilizce okuma becerilerinin önemli olduğunu belirlemek amacıyla lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum 5. Kesinlikle katılıyorum

Ders kitaplarını ve kaynak kitapları okumak için	1	2	3	4	5
Sınav sorularını okumak için	1	2	3	4	5
Tıbbi dergi ve makaleleri okumak için	1	2	3	4	5
Roman ve hikayeleri okumak için	1	2	3	4	5
Gazete okumak için	1	2	3	4	5
Grafik, çizelge ve tabloları okumak için	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

6. İngilizce okuma becerilerinin size göre neden önemli olduğunu belirlemek için lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

Okuma parçalarının ana fikrini anlamak	1	2	3	4	5
Okuma metinlerini ayrıntılı bir şekilde okumak	1	2	3	4	5
Metinleri çevirmek için	1	2	3	4	5
Dişagram ve çizelgelerdeki bilgiyi yorumlamak için	1	2	3	4	5
Özet çıkarmak için	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

7. İngilizce dinlemeye ne sıklıkta ihtiyaç duyuyorsunuz?

- a) her zaman b) sıklıkla c) bazen d) nadiren e) hiç bir zaman

8. İngilizce dinleme becerilerinin size göre neden önemli olduğunu belirlemek için lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

Günlük konuşmaları anlamak için	1	2	3	4	5
Ders hocalarının sözlü talimatlarını anlamak için	1	2	3	4	5
Radyo ve TV programlarını anlamak için	1	2	3	4	5
Tıbbi konulardaki tartışmaları anlamak için	1	2	3	4	5
Seminer ve konferansları anlamak için	1	2	3	4	5
Dersleri anlayıp not tutmak için.	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

9. İngilizce konuşmaya ne sıklıkta ihtiyaç duyuyorsunuz?

- a) her zaman b) sıklıkla c) bazen d) nadiren e) hiç bir zaman

10. İngilizce konuşma becerilerinin size göre neden önemli olduğunu belirlemek için lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

Sınıf içi tartışmalara katılmak için	1	2	3	4	5
Günlük konuşmaları yapabilmek için	1	2	3	4	5
Raporları sunabilmek için	1	2	3	4	5
Yabancı hastalarla konuşmak için	1	2	3	4	5
Seminer ve konferanslarda sunum yapabilmek için	1	2	3	4	5
Sınıfta soru sormak ve yanıtlamak için	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

11. Aşağıdaki İngilizce dil becerilerinden hangileri tıbbi çalışmalarınızda başarılı olmak için gereklidir? (Lütfen uygun olanları işaretleyin.)

- () İngilizce ders kitaplarını, kaynak kitapları ve tıbbi dergileri okumak,
 () Raporları sözlü olarak sunmak,
 () Dersleri anlamak,
 () Sohbet etmek,
 () Tıp alanıyla ilgili yapılan İngilizce konferansları ve seminerleri takip etmek,
 () Tıp alanıyla ilgili yapılan İngilizce konferans ve seminerlerde sunum yapabilmek,
 () Sınav sorularına cevap verebilmek,
 () Araştırma makaleleri yazmak,
 () Diğer (Lütfen belirtiniz)

12. Tıp alanında sizin şu anda karşılaşmakta olduğunuz İngilizce dil problemlerini belirlemek için aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
 5. Kesinlikle katılıyorum

Yetersiz kelime bilgisi	1	2	3	4	5
Yetersiz dilbilgisi	1	2	3	4	5
Yetersiz duyduğunu anlama becerisi	1	2	3	4	5
Yetersiz konuşma becerisi	1	2	3	4	5
Yavaş okuma hızı	1	2	3	4	5
Yetersiz yazma becerisi	1	2	3	4	5
Kötü telaffuz etme	1	2	3	4	5
Genel olarak okuma materyallerinde İngilizce'nin kompleks kullanımı.	1	2	3	4	5
Tıp alanındaki okuma materyallerinde İngilizce'nin kompleks kullanımı.	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

APPENDIX E

Questionnaire for Academicians

Dear participant,

I am a student in the Master's of Arts in the Teaching of English as a Foreign Language Program at Bilkent University. For my master thesis, I am conducting an analysis of English language needs of Medical Faculty students at Pamukkale University. The aim of this questionnaire is to obtain necessary information for this purpose. Cooperation is voluntary and your completion of the questionnaire is assumed to grant permission to use your answers for this study. Thank you in advance for your cooperation and for taking the time to answer the questions fully and meticulously.

Çağla TAŞCI

Bilkent Üniversitesi-

Master of Arts in Teaching English as a Foreign Language MA TEFL 2007

D) Demographical Information

1. Gender: a) Male b) Female
2. Age:.....
3. Title:
4. The university you graduated from:
5. The university you obtained your specialty from:
6. Department:
7. Administrative post:.....

B. The following questions aim to identify your opinions about learning English at the Medical Faculty of Pamukkale University. Please use the following scale for questions from 1 to 21. (Please circle your answers).

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

1. General purposes English is important for medical students at PAU.	1	2	3	4	5
2. Medical purposes English is important for medical students at PAU.	1	2	3	4	5
3. General English instruction should start from the preparatory classes.	1	2	3	4	5
4. Medical English instruction should start from the preparatory classes.	1	2	3	4	5
5. The materials in medical students' English courses should be relevant to the medical field.	1	2	3	4	5
6. The current amount of English instruction given to medical students at PAU is adequate to meet their academic and professional English language needs.	1	2	3	4	5

7. Medical students should be allowed to continue onto their medical education, even if they fail in English courses in preparatory class.	1	2	3	4	5
8. The students should be taught in separate classes according to their proficiency levels.	1	2	3	4	5
9. English classes should continue during the medical students' academic medical education.	1	2	3	4	5
10. English language instructors should use a method in which students can learn English interactively in groups.	1	2	3	4	5
11. Problem based learning (PBL) should be adapted to use in English for medical purposes courses.	1	2	3	4	5
12. The medical students at PAU have the language capacity to read the English language medical sources in the library.	1	2	3	4	5
13. In order to make use of the medical sites on the internet, one should have a high level of English.	1	2	3	4	5
14. Translation skills are important to develop learners' overall language competence for medical studies.	1	2	3	4	5
15. There are adequate English resources and textbooks translated into Turkish.	1	2	3	4	5
16. It is important for medical students to be able to read the original English texts.	1	2	3	4	5
17. English language instructors are knowledgeable enough to teach English for medical purposes courses.	1	2	3	4	5
18. At present, English language instructors at PAU consider medical academic English language needs when selecting the materials for their lessons.	1	2	3	4	5
19. English language instructors should use internet in English classes.	1	2	3	4	5
20. At PAU, there is adequate technological equipment (TV, video, radio, internet, D.V.D.) available for language teaching.	1	2	3	4	5
21. At PAU instructors use the technological equipment (TV, video, radio, internet, D.V.D.) available for language teaching) effectively.	1	2	3	4	5

C. The following questions aim to identify your opinions about learning and using the four language skills--reading, writing, speaking and listening .

1. Which of the following English language skills do you think are the most important for medical students? (Please put them in order of importance assigning number 1 to the most important, number 4 to the least important.)

listening () speaking () reading () writing ()

2. How often do you think the medical students at PAU need English writing skills?

a) always b) often c) rarely d) never

3. Please use the following scale to determine why writing skills are necessary for medical students. (Please circle your answers)

1. Strongly agree 2. Agree 3. Not sure 4. Disagree 5. Strongly disagree

To write laboratory reports	1	2	3	4	5
To write term projects	1	2	3	4	5
To do homework	1	2	3	4	5
To take notes during lectures	1	2	3	4	5
To write essays	1	2	3	4	5
To write research papers	1	2	3	4	5
Others (please specify)	1	2	3	4	5

4. How often do you think the medical students at PAU need English writing skills?

a) always b) often c) rarely d) never

5. Please use the following scale to determine for which of these reading materials English reading skills are important. (Please circle your answers)

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To read textbooks and resource books	1	2	3	4	5
To read exam questions	1	2	3	4	5
To read medical journals and articles	1	2	3	4	5
To read novels and stories	1	2	3	4	5
To read newspapers and journals	1	2	3	4	5
To read graphs, charts and tables	1	2	3	4	5
Others (please specify)	1	2	3	4	5

6. Please use the following scale to determine why reading skills are necessary for medical students. (Please circle your answers).

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To understand the main ideas of reading texts	1	2	3	4	5
To read texts in detail.	1	2	3	4	5
To translate texts	1	2	3	4	5
To interpret the information in diagrams and charts	1	2	3	4	5
To summarize	1	2	3	4	5
Others (please specify)	1	2	3	4	5

7. How often do you think the medical students at PAU need English listening skills?

a) always b) often c) rarely d) never

8. Please use the following scale to determine why listening skills are necessary for medical students. (Please circle your answers)

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To understand daily conversations.	1	2	3	4	5
To follow spoken instructions from lecturers.	1	2	3	4	5
To understand radio and TV programs.	1	2	3	4	5
To understand discussions on medical issues	1	2	3	4	5
To understand seminars, conferences.	1	2	3	4	5
To understand and take notes during lectures.	1	2	3	4	5
Others (please specify)	1	2	3	4	5

9. How often do you think the medical students at PAU need English speaking skills?

a) always b) often c) rarely d) never

10. Please use the following scale to determine why speaking skills are necessary for medical students. (Please circle your answers)

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

To participate in class discussions	1	2	3	4	5
To carry on daily conversations	1	2	3	4	5
To present oral reports	1	2	3	4	5
To talk to foreign patients	1	2	3	4	5
To make presentations at seminars and conferences	1	2	3	4	5
To ask questions in class.	1	2	3	4	5
Others (please specify)	1	2	3	4	5

11. Which of the following English language skills are important for the students' success in medical studies? (Check whichever are appropriate.)

- reading to understand English textbooks, resource books and medical journals.
- presenting oral reports
- understanding class lectures
- carrying on conversations
- to follow conferences and seminars held in English related to medical issues
- to be able to present in conferences and seminars in English related to medical issues
- writing exam answers
- writing research papers
- Others (please specify)

12. For what purposes have you needed English most in your academic and professional life? (You can check all appropriate items).

- To take notes during lectures
- To write laboratory reports
- While participating in the seminars presented in English both at home and abroad
- In order to follow the literature of my own specialty, specifically.
- In order to keep track of the literature about new findings, techniques and treatments in medicine in general.
- To understand the manuals of medical equipment

13. Please use the following scale to determine what English language problems medical students may currently be facing in their medical studies.

1. Strongly disagree 2. Disagree 3. Not sure 4. Agree 5. Strongly agree

Poor vocabulary	1	2	3	4	5
Poor grammar	1	2	3	4	5
Poor listening comprehension	1	2	3	4	5
Poor speaking skill	1	2	3	4	5
Slow reading speed	1	2	3	4	5
Poor writing skill	1	2	3	4	5
Poor pronunciation	1	2	3	4	5
The complex use of English in reading materials in general	1	2	3	4	5
The complex use of English in reading materials in medicine.	1	2	3	4	5
Others (please specify)	1	2	3	4	5

APPENDIX F

Akademisyenler için Anket

Sayın katılımcı,
Bilkent Üniversitesi'nde Yabancı Dil Olarak İngilizce Öğretimi Yüksek Lisans Programında öğrenciyim. Yüksek lisans tezim için, Pamukkale Üniversitesi Tıp Fakültesindeki öğrencilerin İngilizce dil gereksinimleri konusunda araştırma yapmaktayım. Bu anketin amacı, öğrencilerin ihtiyaçlarını belirlemek için gerekli bilgileri elde etmektir. Ankete katılmak isteğe bağlıdır. Anketi doldurmanız cevaplarınızın bu çalışmada kullanılmasında izin verdiğiniz anlamına gelmektedir. Soruları eksiksiz biçimde ve titizlikle cevaplandırmak için zaman ayırdığınızdan dolayı şimdiden teşekkür ederim.

Çağla TAŞÇI

Bilkent Üniversitesi-

Yabancı Dil olarak İngilizce Öğretimi Bölümü MA TEFL 2007

E) Demografik Bilgiler

1. Cinsiyetiniz: a) Kız b) Erkek
2. Yaşınız:.....
3. Ünvanınız:
4. Mezun olduğunuz üniversite:
5. Uzmanlığınızı aldığınız üniversite:
6. Bölümünüz:
7. İdari göreviniz:

F) Aşağıdaki sorular Pamukkale Üniversitesi (PAU) Tıp Fakültesindeki İngilizce öğrenimi hakkındaki görüşlerinizi belirlemek içindir. 1'den 22'e kadar olan soruları aşağıdaki ölçeği kullanarak cevaplayınız. Lütfen cevaplarınızı daire içine alınız.

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

1. Genel amaçlı İngilizce'yi öğrenmek PAU'deki tıp öğrencileri için önemlidir.	1	2	3	4	5
2. Tıbbi amaçlı İngilizce'yi öğrenmek PAU'deki tıp öğrencileri için önemlidir	1	2	3	4	5
3. Genel amaçlı İngilizce eğitimi hazırlık sınıflarından itibaren başlamalıdır.	1	2	3	4	5
4. Tıbbi amaçlı İngilizce eğitimi hazırlık sınıflarından itibaren başlamalıdır.	1	2	3	4	5
5. Tıp öğrencilerinin İngilizce derslerindeki ders materyalleri tıp alanıyla ilgili olmalıdır.	1	2	3	4	5

6. PAU' deki tıp öğrencilerine verilen İngilizce derslerinin mevcut saatleri, tıp öğrencilerinin akademik ve mesleki İngilizce dil ihtiyaçlarını karşılamak için yeterlidir.	1	2	3	4	5
7. Tıp öğrencilerine hazırlık sınıfındaki İngilizce derslerinden kalsalar bile tıp eğitimlerine devam etmelerine izin verilmelidir.	1	2	3	4	5
8. PAU'de hazırlık sınıfında İngilizce dil düzeyi farklı tıp öğrencileri ayrı sınıflarda öğrenim görmelidir.	1	2	3	4	5
9. İngilizce dersleri, öğrencilerin üniversitedeki tıp eğitimleri boyunca devam etmelidir.	1	2	3	4	5
10. İngilizce öğretim elemanları öğrencilerin grup çalışmaları içinde İngilizce'yi daha interaktif bir şekilde öğrenebilecekleri bir yöntem kullanmalıdırlar.	1	2	3	4	5
11. Probleme dayalı öğrenme (PDÖ) yönteminin tıbbi amaçlı İngilizce derslerinde de kullanılmalıdır.	1	2	3	4	5
12. PAU' deki tıp öğrencilerinin İngilizce dilindeki tıbbi kaynakları okuyabilecek düzeyde dil yeteneği vardır.	1	2	3	4	5
13. İnternetteki tıpla ilgili sitelerden yararlanabilmek için bir öğrencinin iyi düzeyde İngilizce bilgisinin olması gerekir.	1	2	3	4	5
14. Tıpla ilgili çalışmalar için, öğrencilerin çeviri becerilerini geliştirmek önemlidir.	1	2	3	4	5
15. Türkçe'ye çevrilen yeteri miktarda kaynak kitap ve ders kitabı mevcuttur.	1	2	3	4	5
16. Tıp öğrencilerinin orijinal İngilizce metinleri okuyabilmeleri önemlidir.	1	2	3	4	5
17. İngilizce öğretim elemanları tıbbi amaçlı İngilizce derslerini verebilecek düzeyde bilgi sahibidirler.	1	2	3	4	5
18. Şu anda PAU' deki İngilizce öğretim elemanları ders materyallerini seçerken öğrencilerin akademik İngilizce ihtiyaçlarını göz önünde bulundururlar.	1	2	3	4	5
19. İngilizce öğretim elemanları İngilizce derslerinde interneti kullanmalıdırlar.	1	2	3	4	5
20. Pamukkale Üniversitesi'nde dil öğretimi için yeteri miktarda teknolojik araçlar (TV, video, bilgisayar, D.V.D.) mevcuttur.	1	2	3	4	5
21. Pamukkale Üniversitesindeki İngilizce öğretim elemanları teknolojik araçlarını (TV, video, bilgisayar, D.V.D.) etkin bir şekilde kullanmaktadırlar.	1	2	3	4	5

C. Aşağıdaki sorular dört dil becerisinin- okuma, yazma, konuşma ve dinleme- öğrenilmesi ve kullanılmasıyla ilgili görüşlerinizi belirlemek içindir.

1. Aşağıdaki dil becerilerinden hangisinin tıp öğrencileri için en önemlisi olduğunu düşünüyorsunuz? (Lütfen en önemliye 1, en az önemliye 4 numarasını vererek önem sırasına koyunuz.)

dinleme () konuşma () okuma () yazma ()

2. Sizce PAU'deki tıp öğrencileri İngilizce yazmaya ne sıklıkta ihtiyaç duyuyorlar?

a) her zaman b) sıklıkla c) bazen d) nadiren e) hiç bir zaman

3. İngilizce yazma becerisinin tıp öğrencileri için neden önemli olduğunu belirlemek için lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

Laboratuar raporları yazmak için	1	2	3	4	5
Dönem projelerini yazmak için	1	2	3	4	5
Ödev yapmak için	1	2	3	4	5
Derslerde not almak için	1	2	3	4	5
Kompozisyon yazmak için	1	2	3	4	5
Araştırma makaleleri yazmak için	1	2	3	4	5
Diğer (lütfen belirtiniz)	1	2	3	4	5

4. Sizce PAU'deki tıp öğrencileri İngilizce okumaya ne sıklıkta ihtiyaç duyuyorlar?

a) her zaman b) sıklıkla c) bazen d) nadiren e) hiç bir zaman

5. Aşağıdaki okuma materyallerinden hangileri için İngilizce okuma becerilerinin önemli olduğunu belirlemek amacıyla lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

Ders kitaplarını ve kaynak kitapları okumak için	1	2	3	4	5
Sınav sorularını okumak için	1	2	3	4	5
Tıbbi dergi ve makaleleri okumak için	1	2	3	4	5
Roman ve hikayeleri okumak için	1	2	3	4	5
Gazete okumak için	1	2	3	4	5
Grafik, çizelge ve tabloları okumak için	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

6. İngilizce okuma becerilerinin tıp öğrencileri için neden önemli olduğunu belirlemek için lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

Okuma parçalarının ana fikrini anlamak	1	2	3	4	5
Okuma metinlerini ayrıntılı bir şekilde okumak	1	2	3	4	5
Metinleri çevirmek için	1	2	3	4	5
Diyafram ve çizelgelerdeki bilgiyi yorumlamak için	1	2	3	4	5

Özet çıkarmak için	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

7. Sizce PAU'deki tıp öğrencileri İngilizce dinlemeye ne sıklıkta ihtiyaç duyuyorlar?

a) her zaman b) sıklıkla c) bazen d) nadiren e) hiç bir zaman

8. İngilizce dinleme becerilerinin tıp öğrencileri için neden önemli olduğunu belirlemek için lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

Günlük konuşmaları anlamak için	1	2	3	4	5
Ders hocalarının sözlü talimatlarını anlamak için	1	2	3	4	5
Radyo ve TV programlarını anlamak için	1	2	3	4	5
Tıbbi konulardaki tartışmaları anlamak için	1	2	3	4	5
Seminer ve konferansları anlamak için	1	2	3	4	5
Dersleri anlayıp not tutmak için.	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

9. Sizce PAU'deki tıp öğrencileri İngilizce konusmaya ne sıklıkta ihtiyaç duyuyorlar?

a) her zaman b) sıklıkla c) bazen d) nadiren e) hiç bir zaman

10. İngilizce konuşma becerilerinin tıp öğrencileri için neden önemli olduğunu belirlemek için lütfen aşağıdaki ölçeği kullanınız. (Lütfen cevaplarınızı daire içine alınız.)

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
5. Kesinlikle katılıyorum

Sınıf içi tartışmalara katılmak için	1	2	3	4	5
Günlük konuşmaları yapabilmek için	1	2	3	4	5
Raporları sunabilmek için	1	2	3	4	5
Yabancı hastalarla konuşmak için	1	2	3	4	5
Seminer ve konferanslarda sunum yapabilmek için	1	2	3	4	5
Sınıfta soru sormak ve yanıtlamak için	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5

11. Aşağıdaki İngilizce dil becerilerinden hangileri öğrencilerin tıbbi çalışmalarında başarılı olması için gereklidir? (Lütfen uygun olanları işaretleyin.)

- () İngilizce ders kitaplarını, kaynak kitapları ve tıbbi dergileri okumak,
 () Raporları sözlü olarak sunmak,
 () Dersleri anlamak,
 () Sohbet etmek,
 () Tıp alanıyla ilgili yapılan İngilizce konferansları ve seminerleri takip etmek,
 () Tıp alanıyla ilgili yapılan İngilizce konferans ve seminerlerde sunum yapabilmek,
 () Sınav sorularına cevap verebilmek,
 () Araştırma makaleleri yazmak,
 () Diğer (Lütfen belirtiniz)

12. Akademik ve mesleki yaşamınızda en çok hangi amaçlar için İngilizce'ye ihtiyaç duymaktasınız? (Lütfen uygun olanları işaretleyin.)

- () Tez hazırlamak için,
 () Araştırma makaleleri yazmak için,
 () Yurt içi ve yurt dışındaki İngilizce sunulan seminerlere katılırken,
 () Özellikle kendi uzmanlık alanıyla ilgili literatürü takip etmek için,
 () Tıptaki yeni bulguların, tekniklerin ve tedavilerin literatürünü takip etmek için,
 () Tıbbi ekipmanların kullanım klavuzunu anlamak için,
 () Diğer (Lütfen belirtiniz)

13. Size göre, tıp alanında öğrencilerin şu anda karşılaştıkları İngilizce dil problemlerini belirlemek için aşağıdaki ölçeği kullanınız.

1. Kesinlikle katılmıyorum 2. Katılmıyorum 3. Kararsızım 4. Katılıyorum
 5. Kesinlikle katılıyorum

Yetersiz kelime bilgisi	1	2	3	4	5
Yetersiz dilbilgisi	1	2	3	4	5
Yetersiz duyduğunu anlama becerisi	1	2	3	4	5
Yetersiz konuşma becerisi	1	2	3	4	5
Yavaş okuma hızı	1	2	3	4	5
Yetersiz yazma becerisi	1	2	3	4	5
Kötü telaffuz etme	1	2	3	4	5
Genel olarak okuma materyallerinde İngilizce'nin kompleks kullanımı.	1	2	3	4	5
Tıp alanındaki okuma materyallerinde İngilizce'nin kompleks kullanımı.	1	2	3	4	5
Diğer (Lütfen belirtiniz)	1	2	3	4	5