English for Medical Purposes: A Case of English for Specific Purposes

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ABSTRACT

Thesis Title: English for Medical Purposes: A Case of English for Specific Purposes

The present study aimed at investigating the academic and professional English language communicative needs of medical learners in Pakistan. The study explored the frequency of usage of English, its importance in various activities related to medical field, the existing level of English proficiency of medical learners also identified opinions about learning English at medical colleges in Pakistan. In order to investigate academic and professional English language needs of medical learners, empirical research was conducted by means of survey questionnaires. I employed techniques of purposive sampling and stratified random sampling. Four questionnaires were constructed for four groups of medical discourse community; students of medicine, teachers of medicine, medical trainees, and medical administrators. Data were analyzed both quantitatively and qualitatively. Closed-ended items were analyzed quantitatively by using SPSS (Statistical Package for Social Sciences) and open-ended items were analyzed qualitatively by reviewing responses, grouping related responses and identifying common themes. The findings revealed that English was extensively used both in medical studies and profession. English was considered highly important to carry out various activities in medical field. The findings presented that medical learners’ existing level of English proficiency is not adequate to meet their linguistic needs and thus English is highly required. The findings revealed that the amount of English taught before joining medical college is not adequate to meet academic and professional medical needs of the medical learners therefore a course of English is required to address the problem. Based on the findings, needs oriented course of English has been recommended for its implementation in medical colleges of Pakistan. The findings provided directions for designing course contents that need to be integrated with enriched knowledge of all four skills of English language with a close emphasis on productive skills (speaking and writing) as compared to receptive skills (reading and listening). The study indicated the needs of specific methodology and trainings of English language teachers for teaching English in medical colleges. The overall findings of the study revealed dire need of course of English that should be urgently implemented in the medical colleges of Pakistan.

Keywords: English for specific purposes, needs analysis, English for medical purposes.
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LIST OF ABBREVIATIONS

AJK: Azad Jammu and Kashmir
CLIL: Content and Language Integrated Learning
CNP: Communicative Needs Processor
CLT: Communicative Language Teaching
CP& SP: College of Physicians and Surgeons Pakistan
CSPR: Communication Skills for Public Relations
DAI: Degree Awarding Institutes
EAMP: English for Academic Medical Purposes
EAP: English for Academic Purposes
EBE: English for Business and Economics
EBP: English for Business Purposes
ECST: English Curriculum for Science and Technology
EFL: English as a Foreign Language
EGAP: English for General Academic Purposes
EGP: English for General Purposes
EIL: English as an International Language
ELP: English for Legal Purposes
ELT: English Language Teaching
EMP: English for Medical Purposes
EOP: English for Occupational Purposes
EOMP: English for Occupational Medical Purposes
ESAP: English for Specific Academic Purposes
ESL: English as Second Language
ESP: English for Specific Purposes
ESS: English for Social Sciences
EST: English for Science and Technology
EVP: English for Vocational Purposes
FCPS: Fellow of College of Physicians and Surges
FL: Foreign language
GE: General English
GPE: General Purpose English
GRE: Graduate Record Examinations
HEC: Higher Education Commission of Pakistan
HO: House Officer
IAMRA: International Community of Medical Regulatory Authorities
IELTS: International English Language Testing System
IFID: International Federation (for Information and) on Documentation
IIMC: Islamic International Medical College
IMG: International Medical Graduates
IMRAD: Introduction, Materials and Methods, Results and Conclusion/Discussion
JAMA: Journal of the American Medical Association
KPK: Khyber Pakhtun Khwa
LSP: Language for Specific Purposes
MBBS: Bachelor of Medicine and Bachelor of Surgery
MEDLARS: Medical Literature Analysis and Retrieval System
MELT: Medical English Language Teaching
MD: Doctor of Medicine
ME: Medical English
MESP: Medical English for Specific Purposes
MS: Masters
NA: Need Analysis
NCILT: National Centre for Industrial Language Training
NNS: Non-native Speakers
PBL: Problem-Based Learning
**PGR:** Postgraduate Resident

**PIS:** Patient Information Sheets

**PM&DC:** Pakistan Medical and Dental Council

**PNA:** Pedagogic Needs Analysis

**PSA:** Present-Situation Analysis

**RMC:** Rawalpindi Medical College

**SLA:** Second Language Acquisition

**SQU:** Sultan Qaboos University

**TE:** Tourism English

**TEE:** Trade and Economics English

**TESP:** Teaching of English for Specific Purposes

**TOEFL:** Test of English as Foreign Language

**TSA:** Target Situation Analysis

**UBD:** University of Brunei Darussalam

**UHS:** University of Health Sciences
DEDICATION

To Allah who is my protector, to my parents who encouraged me to undertake this project and to all those who helped me to accomplish and to all who may take positive insights from this little piece of paper.
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CHAPTER 1

INTRODUCTION

This chapter starts by providing a brief account of the importance of English as lingua franca of medicine, gives a background of the English language teaching (ELT) situation in Pakistani education system, states the problem, provides the objective and introduces the present research plan. Then it moves towards a detailed description of the medical profession and medical education in Pakistan. Next, it rationalizes the reasons for undertaking this research project along with benefits and addresses research questions. This is followed by a succinct description of the research methodology opted in this study. The chapter concludes by significance that guided the outline of the dissertation.

1.1. Background of the Study

English is broadly recognized as lingua franca for worldwide communication used in the global markets (Coury, 2001; Crystal, 2003; Jenkins, 2004; Kurfürst, 2004; Schwarz, 2003; Seidlhofer, 2005; Yang, 2006). It is internationally recognized as an essential source of communication in several professions including engineering, medicine, business, law and technology. Essen (2000) imputed English for Specific Purposes (ESP) as a preeminent reason for role of English as an International Language (EIL) similarly for a variety of English as lingua franca. ESP is usually employed for specifically utilitarian purposes for teaching/learning process of foreign language (Mackay & Mountford 1978, p. 2). Widdowson (1997, p. 144) has believed that EIL and ESP are intertwined otherwise it would not have spread and regulated itself as an efficacious tool of large-scale communication.

Essen (2000) recapitulated the primacy of English as an international language considering it of greater interest as a foreign or second language when learnt in specific context. Frinculescu (2009) pointed out the two dominant factors behind emergence of EIL (i.e., the former expansion of British colonial power and the rise of the United States of
America as the supreme power of the 20th century). Csillia (2009) indicated that the U.S sovereignty in the fields of media and culture spurred availability of American English products throughout the world that produced approximately 1.3 billions of more or less fluent English speakers by the end of the 20th century however, great majority of them included non-native speakers of the language according to a rough estimate given by Crystal (1997).

Csillia (2009) has attributed English with intrinsic and extrinsic potentials enunciating that English is described as 'God-given, rich, noble and interesting' that entails what English is and other languages are not. However, English is well recognized due to great multitude of expert teachers and prolific teaching materials available across the world. In addition, other opinions for English proclaimed its economic- reproductive and ideological functions standing as a symbol for material advance and efficiency; such functional opinions accentuate the usefulness of English as a gateway to the world (p. 55).

Frinculescu (2009) has pointed out that the widespread publications in English have become possible only due to the factors aforementioned that blessed English a status which no other language has been able to achieve. The most renowned medical journals, the best-acclaimed works in the fields of science, medicine and technology are recorded in English both in international and American journals. There is also the World Wide Web and computer networking systems which function in English besides the existence of English in traditionally acknowledged means of communications (pp. 4-7).

Similarly, English has been observed as main language of international meetings of specialists and of international scientific exchanges, including medicine whose interactions, situations and communications in many contexts such as doctor-patient consultations; doctor-doctor consultations, conferences and meetings all take place in English. For these reasons, it has become necessary for an overseas doctor to master in diversity of skills as he or she should be familiar with a fairly wide variety of regional accents and speech patterns as note taking, giving a presentation, a knowledge of forms of questioning, discussion procedure, polite forms of address, and cultural norms in English-speaking societies (Frinculescu, 2009; Maher, 1986).
Kang (2004) has added that learning English is indispensable for medical professionals as the world has become internationalized and almost all the medical information which medical students and researchers need to access is found in English. Kurfürst (2005) has suggested that English is of fundamental significance for medical students, as they need to use English in their studies, which are for reading journals and textbooks when preparing for exams, or for discussion in class or at medical meetings. Furthermore, they have to learn to write patient charts, medication sheets, prescriptions and orders in English during their training and in their future medical careers. Hence, English for Medical Purposes (EMP) has become important. The English language that medical professionals need in their medical career is not only English for General Purposes (EGP), but also EMP, a kind of ESP. Van Naerssen (1978) has pointed out that EMP as a form of English and as a Second Language (ESL) education, clearly emphasizes teaching aspects of medical English according to the needs of the job: for writing progress notes and charting, interviewing and assessing patients, and providing oral and written reports (as cited in Hull, 2006).

Thus, English has attained an indubitable status in Pakistani medical settings. There are several motives for Pakistani medical learners to learn medical English due to the key position of English language as global lingua franca. There are numerous academic and occupational activities (e.g., to attend class lectures, to read journals and books, to give presentations in seminars and workshops, to speak to colleagues on professional visits, to make use of the expanding and increasingly important database available through the Internet, to consult materials in libraries, to participate in international conferences, to write up research for journal publication etc.) relying on English as long as Pakistani medical situation is concerned. Similarly a large number of medical students pursue their postgraduate studies in the advanced countries like UK or the US, and work in hospitals where English is the first language or the lingua franca, it becomes essential for them to have sufficient competence in EMP. Therefore, the medical learners in Pakistan have strong needs and motivation to learn EMP.

There are no such courses established in Pakistani medical colleges to enhance the English language proficiency of medical students specifically aimed at meeting their certain
medical needs. Moreover, there are no EMP teachers available in Pakistan who have been trained for this specific purpose. There should be genre driven EMP textbooks developed focusing on the current needs and future prospects of the medical learners in Pakistan. However, the contents and materials in the textbooks should be devised on the basis of academic and occupational needs analyses of medical students. Similarly, the EMP textbooks materials should include contents related to four integrative language skills (i.e., listening, speaking, reading and writing).

1.2. English Language Teaching (ELT) in Pakistan

According to Rahman (2003), Pakistan is a multilingual country with six major and over fifty-nine small languages. However, the languages of the domains of power, government, corporate sector, media, education, etc. are English and Urdu (p. 4). Javed (2008) has pointed out that speakers of English are bestowed with intellectual and social superiority in Pakistan. A linguistic hierarchy exists with the native English speaker on top, followed by the non-native speaker of English, sending off the non-English speaker at the bottom (p. 104).

Khan (2002) has mentioned that there are three main types of schools in Pakistan. These schools include private schools that cater for the upper class; the government schools, which serve the middle classes of population and the Madrassah, the religious school. Private schools offer all instruction in English whereas in government schools the medium of instruction is either Urdu or the local provincial language.

Javed (2008) has rationalized that...the standard of English taught at government – run schools, as well as the cheaper private schools is much below par (p. 106). Ghani (1999, p. 105) has remarked that English is the only foreign language used for writing in hospitals, banks, airports, markets, factories particularly in competitive exams. There are a number of employments where expertise in spoken and written English is necessary and a reasonable knowledge of English promises better paid employment opportunities. He has further added, “Socially, English has been adopted as a polite and prestigious means of interaction among educated Pakistanis: those who know it are considered educated. In Pakistan, English as a second language has had a significant impact both economically and educationally” (Ghani,
According to Ghani (1999), the difference of competence of English becomes evident at intermediate and graduate levels where English becomes the medium of instruction for science group. Students from Urdu medium schools find it hard to come up with science subjects and despite having a strong aptitude for medical and engineering cannot get admission into medical and engineering colleges because they cannot comprehend and later on reproduce the material written in English (p. 108).

Hassan (2000) has expressed his dissatisfaction with the written output of senior students, as second drafts submitted by students are as bad as the first one. They repeat mistakes corrected so painstakingly in the first one (p. xi). In recent years, with more young people from the affluent classes appearing in the British O’ and A’ level examinations, with globalization and the talk about English being a world language, with stories of young people emigrating all over the world armed with English—with all these things English is a commodity in more demand than ever before (Rahman, 2003, p. 5).

Khurram (2001a) has considered the flawed education system as the main reason for poor output in English language as he pointed out that it is obvious that even when we are exposed to English from an early age most of us get little sense of mastery over it (p. 8). Quoting Aziz Tabani, director operations, Sindh Education Foundation, Javed (2008) has stated that key to teaching good English lies in whether it is taught as a language or as a subject, and in most schools it is taught as a subject. The dilemma in Pakistan is that most schools do not have qualified teachers (p. 106).

Ghani (1999) has remarked that teacher centered English language classrooms, lack of formal trainings of English teachers and use of conventional Grammar Translation Methods (GTM) at secondary level of education are the paramount factors responsible for students’ incompetence (pp. 112-113). Hasan (2006) has remarked that students hardly get exposed to actual communication in English with their fellow beings. Similarly, teachers with insufficient command in spoken English emphasize merely on rote learning of grammar and vocabulary (p. 23). Rahman (1999) believed that “Pakistan is perhaps the most backward
country of South Asia in the field of linguistics” (p. 26).

Khurram has recounted that memorization of rule leads the students to establish a storehouse of few isolated sentences constructed artificially with a focus on accuracy of grammar and by sacrificing real and authentic communication (2001c, p. 9). As a result, students fail to speak fluently as they have either read or heard isolated sentences because they are never guided appropriately regarding practice of listening and speaking in the real situations. Thus, the creative abilities of the students are diminished to minimal point (Khurram, 2001c, p. 9).

Khalid (2006) has mentioned the excessive failure ratio of Pakistani students in the subject of English as compared to any other subject in Board as well as in University exams. Besides, the top scorers of English in written exams are found inept when it comes to expertise in spoken English (p. 84). The evaluation and testing procedures are required to be changed according to the needs of the syllabi (Sher & Khan, 2002, p. 150). According to Faiq (2006), the question papers are designed in such a way that who ever having excellent memory would be able to secure high marks even without proper comprehension of the materials. Similarly, appropriate evaluation strategies based on professionalism and fairness are needed to understand and implemented.

Shamsi (2006) has indicated that due to crowded classes teacher cannot do justice to his duty of paying individual attention to the learners. Similarly, the environment and physical conditions under which English is taught are very poor as there are no appropriate seating arrangements (pp. 49- 50). Hasan (2005) has believed that no due attention is given regarding improvement of English pronunciation when English is taught and learnt in Pakistan (pp. 21-23). Zafar (2008) has stated that “English language taught in most institutions here fall under the acronym ‘TENOR’ that is Teaching English for No Obvious Reason ”(p. 23).
1.3. Statement of the Problem

The background idea that has incited to carry out a study for the identification of the needs of the students of medicine is that there have been no significant endeavors undertaken in order to tailor a specific course of English keeping in view the needs of the students of medicine in Pakistan. Thus, a very little research and that too at very minor level is available with regard to investigation of the English language needs of the students of medicine in Pakistan.

The rationale behind introducing English language course in the Pakistani medical colleges is twofold. Firstly, it is the globally acknowledged status of English as lingua franca in the fields of science and technology. Secondly, there is an aim to prepare medical students to meet the challenges of their academic and occupational lives. Pakistani students spend generally seven years studying English as a compulsory subject at their secondary and higher secondary levels of education yet they lack sufficient competence when it comes to the use of English in actual situations.

These school leavers face many linguistic hindrances when they step into advanced level of studies as well as future professional domains. Despite being well qualified and experts of their content areas, yet they are not able to communicate appropriately into real situations. They fail to express themselves according to the needs of target language situations. The main reason for inadequate proficiency of the students in English language communication skills is the lack of concentration on dialogic nature of language learning.

The students are taught through faulty mode of teaching and learning of English language at their foundation level. Their minds are made much prone to memorizing particular grammatical structures, forms and patterns of language. Their specific needs are entirely overlooked. When they join higher level of education, professional field or come across international regimes, they end up disappointed with the required level of competence. They fail to express themselves in actual situations no matter how much knowledge of English language they have acquired previously. In this regard, the efforts of language teachers and administrators also prove to be futile, as the individual needs of the learners are not identified according to the actual usage in target situation.
Since the medical students in Pakistan are not taught English language courses in medical colleges therefore they are generally not well equipped to deal with functional nature of English. In few medical colleges, there is a subject of behavior studies, which is assumed as communication skills however; this is not related to the improvement of English language skills. The fact is that no courses of English in the context of EMP are conducted in the medical colleges to refine linguistic skills of the students. Moreover, there is no teaching faculty available particularly trained in the area of EMP to enrich students’ knowledge of English.

The professors and teachers of medicine who are generally renowned for their respective medical knowledge and dexterity no longer prove to be the source of inculcating English language skills to the medical students to combat their linguistic hindrances. These teachers either teach in English or use code-switching method for imparting information in classroom. The students face difficulties in understanding the contents and the subject matter at subsequent stages where they seek help of other fellow students or invest extra effort and time to get through the examination. Few students fail at the later stages due to not being familiar with the medical English. Majority of them feel hesitated when they have to creatively reproduce contents in English specifically when it comes to speaking or writing in actual situations.

Before entering medical colleges, the students are taught a course of English based on the areas of General English at higher secondary level, which does not incorporate the knowledge of target language situations according to future medical needs of students. The teachers of English teach the students whatever is convenient to them as both the course contents and teacher trainings lack this area.

Thus, in this age of international competition and globalization, it has become highly essential for the Pakistani students to have maximum knowledge and expertise in English language skills. The subjects of this research have been targeted from various educational, social, cultural, economic, and linguistic backgrounds, assembled in one place. Since English is not first language of both the students and professionals in the field of medicine therefore, it is naturally hard for them to cope with the English language difficulties with regard to their academic and professional settings.
Another observed fact is that, there is a great multitude of medical graduates who continue to face mental obstacles in their way to have English proficiency even after their graduation from a medical college. They cannot confidently cope with the tasks of applied nature in terms of English language, which impedes their professional excellence.

In this situation, it is important for the medical students to have sufficient competence in English language communication skills (i.e., listening, speaking, reading and writing). The proficiency in supplementary language skills (e.g., giving presentations, discussions, lectures, seminars, workshops etc.) has equally significant role in this regard. The medical students seriously need to attain sufficient competence in English or increase their threshold proficiency level in English. Hence, it is important to investigate the needs of the medical students for the promotion of course of ESP using the contents of English for Academic Medical Purposes (EAMP) and English for Occupational Medical Purposes (EOMP). The course of EMP would address their problem areas according to the individual needs in a specialized way.

1. 4. Present Study

The present study aims at the standardization of medical English at global platforms. In this study, ESP needs analysis approach has been applied in order to investigate academic and occupational linguistic needs of medical learners in the Pakistani medical colleges. This study highlights the perceptions regarding specific needs of English language of the medical students for the recommendation of course of English for MBBS students. The research takes into account the frequency of usage of English in medical studies, the importance of English and existing proficiency level of the students of medicine in English language skills by identifying their problem areas. In addition, it gathers opinions and perceptions of members of different groups of medical discourse community about learning English at medical college that leads to the recommendation of course of EMP.
1.5. Aim and Objectives

The study aims to recommend a course of English to address the communicative needs of the students of MBBS in Pakistan in response to their linguistic inadequacy in academic and occupational settings. The recommended course can be implemented by the medical curriculum advisory bodies with an intention to improve the standard of medical education in Pakistan also to deal with the demands of global challenges. The study is based on the description of perceptions gathered from members of four different groups of medical discourse community (i.e., students of medicine, teachers of medicine, medical trainees and medical administrators). The objectives are:

- To measure the frequency of the use of English in medical studies,
- To determine the importance of using English in the medical field,
- To identify medical students’ existing level of proficiency in English,
- To identify the opinions and perceptions regarding introducing a course of English in medical colleges.

1.6. Medical Profession in Pakistan

In this section, I will explain the importance of medical profession in Pakistan and then will provide a brief description of the structure of medical education, and the role of English in the professional medical settings.

1.6.1. Importance of Medical Profession

The word medicine is derived from the Latin ars medicina, meaning the art of healing. It is universally acknowledged for its high prestige and tremendous value due to the compassionate services provided to the humanity by medical practitioners without any social discrimination. It encompasses a range of health care practices evolved to maintain and restore health by the prevention and treatment of illness. The objective of medicine is to address people’s unavoidable needs for emotional and physical healing. Generally, medical field is classified into various sub-fields for example dentistry, diagnostic care, alternative medicine, nursing, health care management, pharmacy, mental health and others
The language of medicine in Pakistan is English therefore, curriculum has been exclusively devised in English. The examination is held in the English language. Other related activities like various classroom activities, listening to lectures, classroom presentations, interacting with teachers and dealing with the course contents of various medical subjects are also conducted in English. There are several key factors, which make medical profession as an excellent career choice in Pakistan.

Firstly, there are ever-increasing life expectancies and improved focus on the health related issues. Due to poor health issues, people need to consult medical practitioners anytime and visit them in the hospitals and clinics. For this reason, doctors and the associated staff are considered as very important people. However, better-learned doctors have better incomes.

Secondly, the students who pursue medical education are desirous of helping others live happier and healthier lives.

Thirdly, medical is considered a secure profession because of the huge availability of the jobs in this sector. According to a report ("Bloomberg Business Week", 2006), over 1.7 million new jobs have been included in the health care center since 2001 while jobs beyond the field of health care are same as five years. Moreover, the skills attained at the end of the degree, provide the students opportunities to practice privately by opening a clinic in any area if there are no formal job positions vacant in the hospitals available. Table 1.1 represents total number of MBBS doctors with basic and specialist degrees ("Statistics", 2012).

Fourthly, this field is becoming more and more specified with the huge influx of research-oriented approaches that makes it highly competitive both nationally and internationally.

Fifthly, the medical graduates also hold key positions in the other departments of the government. They take part in the political activities of the country and become renowned politicians in the national and provincial assemblies. Dr. Fehmida Mirza is one such personality who despite having secured her degree in MBBS went for politics and had been
elected as the speaker of the National Assembly of Pakistan in the elections of February 2008 and is serving to date ("Details of Dr. Fehmida Mirza", 1999-2012). Doctors appear in the competitive examination for central superior services and serve at the administrative posts other than medical. Similarly, they join non-government organizations (NGOs) for the causes of social welfare.

Lastly, a recent trend has been seen that doctors play an important role in the electronic media to bring awareness related to the general public health issues. They work as anchorpersons as well as are invited in television shows as guests to provide guidelines on the subjects related to various diseases and illnesses. Thus, a medical graduate in Pakistan has various distinct career opportunities.

Table 1.1

<table>
<thead>
<tr>
<th>Province</th>
<th>Male MBBS</th>
<th>Male Specialists</th>
<th>Female MBBS</th>
<th>Female Specialists</th>
<th>Total MBBS</th>
<th>Total Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab/Federal area</td>
<td>28456</td>
<td>10507</td>
<td>24030</td>
<td>3743</td>
<td>52486</td>
<td>14250</td>
</tr>
<tr>
<td>Sindh</td>
<td>28260</td>
<td>5851</td>
<td>25208</td>
<td>2367</td>
<td>53468</td>
<td>8218</td>
</tr>
<tr>
<td>KPK</td>
<td>10110</td>
<td>3008</td>
<td>4712</td>
<td>724</td>
<td>14822</td>
<td>3732</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>2351</td>
<td>764</td>
<td>1485</td>
<td>188</td>
<td>3836</td>
<td>952</td>
</tr>
<tr>
<td>AJK</td>
<td>1394</td>
<td>484</td>
<td>954</td>
<td>126</td>
<td>2348</td>
<td>610</td>
</tr>
<tr>
<td>Foreign nationals</td>
<td>2460</td>
<td>75</td>
<td>800</td>
<td>18</td>
<td>3260</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td>73031</td>
<td>20689</td>
<td>57189</td>
<td>7166</td>
<td>130220</td>
<td>27855</td>
</tr>
</tbody>
</table>

Note: MBBS = Bachelor of Medicine, Bachelor of Surgery KPK = Khyber Pakhtunkhwa AJK = Azad Jammu and Kashmir
1.6.2. Medical Literature

The articles contained in journals and textbook materials particularly related to the field of medicine refer to medical literature. These include publications in books, magazines, newspapers, periodicals and pamphlets in which the medical community shares valuable information related to the field of medicine on every possible topic. These are either original articles or reviews. The randomized controlled information or research based on scientific method is carried through the original articles and a particular topic in order to refresh reader’s memory is reported through a review. The texts books are designed in such a manner as to meet the needs pertaining to a specified area in the medical field. The textbooks contain comprehensive discussion on the diseases, their treatments, and prognosis and diagnosis procedures. The information related to health issues is publicized by means of mainstream media outlets, which has been given the name as medical journalism (“Medical Literature”, n. d.). The primary source for medical and scientific professionals for seeking comprehensive knowledge related to biomedical research is known as Medical Literature Analysis and Retrieval System (“MEDLARS”, n. d.). This is the online bibliographic database. It has been viewed that more than 80% of the nine million referenced articles are written in English. Furthermore, it has been reported that citations added during the years 1995 to 2003, there were 88% published in English and about 76% have English abstracts written by authors of the articles (Elizabeth, 2012). Similarly, Pakistan is one such country where generally, the medical literature is published in English.

1.6.3. Pakistan Medical and Dental Council (PM&DC)

The supreme authority, which regulates the medical field in Pakistan, is known as Pakistan Medical and Dental Council (PM&DC). It came into existence under an Ordinance in 1962. It is affiliated with International Association of Medical Regulatory Authorities (IAMRA). It is compulsory for every doctor to get registered by PM&DC for medical practice both in Pakistan and abroad. The council determines set criteria for basic and higher qualifications in medicine and dentistry. The council holds annual meeting regarding major policy decisions for the improvement of medical education and its related systems and functions. The president or vice president of the council heads the meetings. PM &DC performs the following duties.
1. Prescribing criteria for the graduate and postgraduate qualifications

2. Designing the courses of study for graduate and postgraduate students

3. Setting criteria for courses of training

4. Determining standards required for examiners for professional examinations

5. Registering faculty and students of the institutions

6. Maintaining the register of practitioners

7. Formulating recommendations regarding recognition of institutions

8. Approving hospitals for house job

9. Prescribing guidelines for medical and dental journals

10. Setting up of schemes of reciprocity with other countries and medical regularity authorities (“About Us, PM&DC”, 2006).

1.6.4. Functions of Head Office

The head office of PM&DC is located in the federal capital, Islamabad. The chief official is called registrar who implements the decisions of the council. The main function of the secretariat is to keep a close liaison with the federal and provincial government health departments, universities, medical colleges and associated societies for successful implementation of the decisions. It also employs medical education specialist who is responsible to provide updated and latest information around the world happening in the medical sector. The council consists of several committees which deal with the different affairs like executive, recognition, disciplinary, postgraduate education, reviews of rationalization of teaching faculty requirements, inspection of medical institutions, examination boards, journal review and accreditation as well as suggests measures to combat quackery, law/regulations. The council has four provincial sub-offices that are located in each of four provincial capitals that are Lahore, Karachi, Peshawar and Quetta (“Functions & Duties”, 2006).
1.6.5. Medical Colleges

The starting point of medical education in Pakistan is a medical college. Broadly speaking, there are two types of medical colleges: public and private. In each case the college has to be affiliated with the PM& DC. Over the last few years, there has been an abundant growth of private medical colleges in two provinces namely Punjab and Sindh. However, the other provinces, KPK and Baluchistan, have very, limited number of medical colleges. While giving affiliation, the universities under which these medical colleges are established usually ascertain that the colleges that make such requests have the sufficient resources to provide medical education to the students. All the medical colleges are affiliated with a total 22 different universities in Pakistan (“List of Universities & DAI’s of Pakistan”, 2006). The promotion of specialist practice of medicine (e.g., medical, surgical and other specialist trainings and research) is done by the College of Physicians and Surgeons Pakistan (“To Promote”, 2012). The list of the medical colleges and their associated teaching hospitals in Pakistan is given in the following (e.g., Table 1.2). However, there are few other hospitals approved only for the purpose of house job/internship, which are 114 in number. These hospitals are apart from the ones as shown in Table 1.2 (“Recognized Medical Colleges”, 2006).

Table 1.2

<table>
<thead>
<tr>
<th>Province</th>
<th>Public Sector Medical college</th>
<th>Private Sector Affiliated teaching hospitals</th>
<th>Total Medical college</th>
<th>Affiliated teaching hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>13</td>
<td>20</td>
<td>35</td>
<td>53</td>
</tr>
<tr>
<td>Sindh</td>
<td>08</td>
<td>10</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>KPK</td>
<td>07</td>
<td>07</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>01</td>
<td>01</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Total</td>
<td>N=29</td>
<td>N=38</td>
<td>N=69</td>
<td>N=72</td>
</tr>
</tbody>
</table>

Note. N=Total Number of
KPK= Khyber Pakhtunkhwa
This table represents the total number of medical colleges and their associated teaching hospitals however, in the province of Punjab there are total 35 medical colleges out of a total number of 72 medical colleges in the country.
1.6.6. Eligibility Criteria for Admission

The council decides the total number of annual admissions. Generally, the maximum annual admission in an MBBS course is limited to 350 candidates whereas private medical institutions can allow up to 150 admissions (“Recognized Medical Colleges”, 2006). There is no specific age limit required to seek an admission in a medical college in Pakistan. The rule, according to which only the candidates with specific age used to be considered eligible, has been repealed in May 2007 by the PM&DC. The candidate who has passed the Intermediate Science (F. Sc.) Examination (Medical Group) securing at least 60% marks in aggregate from a Pakistani university or an equivalent examination of a Board of Secondary Education (BSE) in Pakistan is considered eligible to take the entry test for admission in a medical college. The entry test is held for admission both in private and public institutions. The provincial government makes all the necessary arrangements with regard to it in each province. The final merit is formed for admission by giving due weightage to matric/equivalent, intermediate/equivalent, and the marks of entry test. However, the institutions located in Islamabad territory are an exception in this respect where the entry test is conducted by the federal government. Nevertheless, the federal authority follows the patterns announced by the provincial central admission authority (“Admission in MBBS/BDS”, 2006). The order of merit can be seen in the following (e.g., Table 1.3).

Table 1.3

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Weightage of marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matric /Equivalent</td>
<td>10%</td>
</tr>
<tr>
<td>Intermediate /Equivalent</td>
<td>40%</td>
</tr>
<tr>
<td>Entry test</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Total (N=100%)</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N= Total Number*
1.6.7. University of Health Sciences (UHS)

The first public sector health university of Pakistan is located in the capital of the Punjab; Lahore that is called university of health sciences (UHS). It is recognized by world health organization (WHO). It comprises board of governors, syndicate, academic council, advanced studies and research board, and various boards of studies in different subjects. It regulates all the activities of medical education, training and research institutions throughout the province ("Governing Bodies", 2011).

1.6.8. Curriculum of MBBS and Major Content Areas

The curriculum of medical colleges is designed and implemented under the supervision of both the HEC and PM&DC. It is up to the university faculty to decide the order and grouping of the subjects in each examination. The need of the effective communication skills has been emphasized in the preface to the curriculum guide of medical education but no specific measures have been taken in the light of research. A flexible space has been given to the additional subjects like English and languages however, the authority has been given to the universities to introduce them as optional subjects. It shows predilection towards the probable need of English in the curriculum of medical professionals. Some important areas that are taught in medical colleges include anatomy, physiology, biochemistry, histology, pharmacology, pathology, forensic medicine, community medicine theory, ophthalmology, psychiatry, dermatology, surgery, obstetrics, pediatrics and gynaecologyology. Recently Pakistan studies and Islamiat have been introduced in the first professional of medical colleges in terms of generic competencies as compulsory subjects ("Curriculum of M.B.B.S", n. d.).

1.6.9. The Role of English in Professional Medical Settings

In Pakistani hospitals and medical colleges, doctors use both English and Urdu. At times regional languages are also spoken at the workplace. The good command in English is always a positive point of a doctor as English creates a good impression. As the language of medicine is English in Pakistan, medical students/doctors are regularly required to read medical literature written nationally and internationally which is always in English. Understanding complex structures of medical literature requires a certain level of linguistic
adequacy. Although it is not mandatory to write medical prescriptions in English, yet most of the prescriptions are written in English.

1.6.10. Degrees/Diplomas Offered

To have a degree in medicine, one has to complete basic qualification during five years at a medical college. Five years of MBBS education in a medical college is divided into four professionals. The 1st year and 2nd year of MBBS are generally known as 1st professional whereas 3rd year, 4th year and 5th year of MBBS are respectively considered as the 2nd professional, 3rd professional and 4th professional of medical studies. The university awards a degree of MBBS after successful completion of five years of MBBS in a medical college however, full registration is given to the only doctors who complete their house job trainings in a hospital recognized by PM& DC. It is a license to practice medicine after one year of compulsory work under the guidelines of a professor.

This is up to the choice of students if they opt for further education in medicine. For this purpose, one has to pass fellow of college of physicians and surgeons (FCPS) Exam-1 in the field of specialization and obtain an internship for three to six years. Afterwards one can take the FCPS exam-2. The relevant specialty is awarded on successful completion of the FCPS Part II exam. Besides having MBBS, some universities award the research postgraduate degrees, which are MPhil and PhD. The normal course of duration for the completion of an MPhil or PhD degree is two years. The period can be extended to three years in case of an MPhil whereas a PhD research can be extended up to six years in exceptional circumstances. Although it is prerequisite to complete two years of demonstratorship in relevant subject from a recognized medical college before doing MPhil or PhD degree. Similarly, some universities and colleges offer coursework for MD and MS degrees. Some postgraduate colleges also offer diplomas as few examples are given in the following.

1. Diploma in Medical and Radiology Diagnosis (D.M.R.D)
2. Diploma in Child Health (D.C.H)
3. Diploma in Clinical Pathology (D.C.P)
1.6.11. System of Examination

The universities conduct examination for the programs offered by medical colleges and thus award degrees. With the exception of PhD that is a research degree, for all the other programs, the universities follow annual system of examination. Dow University of Health Sciences Karachi (DUHS) is an exception where the semester system is followed (“Semester System for DMC Approved”, 2008). The Khyber medical university (KMU) intends to start semester system in its affiliated medical and dental institutions, taking insights from the experience of the Dow medical university (“Khyber Medical University”, 2007).

1.7. Scope of the Study

- The scope of study is restricted to an investigation of the English language academic and occupational needs of the students of medicine.
- The study is delimited to one public and one private medical college in the province of Punjab.
- I have selected one city named Rawalpindi from the province of Punjab to carry out this research.
- Rawalpindi Medical College (RMC) Rawalpindi has been selected from the public sector medical colleges and Islamic International Medical College (IIMC) Rawalpindi has represented private sector medical colleges.
- The data have been collected from students of medicine, teachers of medicine, medical trainees and medical administrators.
- The data have been gathered only from the students of 2nd year, 3rd year, 4th year and 5th year of MBBS classes. I have not included 1st year of MBBS classes in this study for the reason; they have spent very little time in a medical college after entering a medical college therefore, they might not be fully aware of their English language needs.
The other group of respondents of this study consists of teachers of medicine. Therefore, teachers from both pre-clinical and clinical campuses of studies have been included in this research.

Another group of participants includes in this study are medical trainees. For this purpose, I have selected house officers (HOs) and postgraduate trainees known as Postgraduate Residents (PGRs) or Training Medical Officers (TMOs).

This study includes medical administrators practicing in associated teaching hospitals of these medical colleges. Therefore, Medical Superintendents (MS), Deputy Medical Superintendents (DMS), Assistant Medical Superintendents (AMS), and the Administration Registrars (ARs) have been selected as subjects of study.

I have delimited study to two campuses of RMC, which include Tipu Road (Old Campus) and New Teaching Block, Holy Family Hospital (NTB-HFH). The associated teaching hospitals of RMC include HFH and Benazir Bhutto Hospital (BBH). Similarly, I have chosen to collect data from two campuses of IIMC comprising IIMC Campus Rawalpindi Cantonment and Pakistan Railway General Hospital (PRGH) Rawalpindi. However, the associated teaching hospital to carry out this study in IIMC is only PRGH.

Further research can identify even more specifically the needs of medical students across different Pakistani medicine related institutions and fields at diverse levels of education.

1.8. Hypothesis

The present study is based on the following hypothesis:

In Pakistan, students studying at medical colleges do not have adequate competence in English language to cope with the academic and occupational tasks they are required to perform with reference to listening, speaking, reading and writing skills.
1.9. Assumptions and Research Questions

The research questions for the present study have been devised on the basis of following assumptions:

- EMP instruction may be necessary to prepare the students of medicine in their academic and occupational lives
- The medical students may need to be informed about the necessity and importance of English to increase their motivation
- It may be necessary to devise a curriculum for medical students, which caters for their communicative needs in terms of four English language skills (i.e., listening, speaking, reading and writing)
- The current adequacy level may not fulfill the expectations of the students of medicine, teachers of medicine, medical trainees and medical administrators.

Therefore, the main research question was:

1. How is it important to recommend a course of English in the Pakistani medical colleges?

The following subsidiary questions were designed in order to answer main research question:

1. What is the frequency of usage of English in the academic and occupational settings of medical learners in the medical colleges of Punjab?
2. What is the importance of English for the medical learners in their academic and occupational settings and for performing what kind of activities?
3. What is the existing level of proficiency of students of medicine in listening, speaking, reading, and writing skills of English?
4. What are the perceptions of different groups of medical discourse community regarding learning English at medical college?
1.10. Significance of the Study

The results of the study would help in conducting studies of similar nature in the field of English as Foreign Language (EFL) needs analysis for different groups of students studying in different disciplines such as those from dentistry, pharmacy and nursing. They can take valuable insights for the improvement of linguistic situation in their respective fields. Similarly, other medical colleges or universities either in Pakistan or abroad can be benefitted from the results and recommendations of this study. This study makes an important contribution to compiling database of medical students’ linguistic needs. At the local level, through the perspectives of administrators, students, teachers and medical trainees, the study may be helpful in determining how to make the most effective use of the learners’ limited class time by defining their specific needs and specific skills and activities, therefore serves as a bridge for achieving their learning objectives.

It may also encourage learners to devise their learning strategies by setting more realistic aims through communicating in frequent actual situations. ESP practitioners and researchers can consult from the empirical database provided by this study in order to make comparison and contrast of the present language situation of medical learners in Pakistan with other ESP situations around the world. Therefore, this study can be employed to serve the larger structure of ESP in language training. It is anticipated that the study would provide valuable assistance to the teaching staff in the faculties of Medical Sciences as it encompasses learners’ self-expressed needs. It would be helpful in understanding the role of English as lingua franca in the International market.

This research would be useful for practitioners of medical English as they will be able to design, create, adapt and implement their teaching agendas in the light of the findings of the research. Keeping these recommendations in view, medical colleges can introduce EAMP and EOMP courses to meet the needs of the students. The study would help to uplift the standard of medical education in Pakistan.

The results of this study can provide assistance for designing an effective curriculum and developing materials not only for the medical students in Punjab but in the other medical
colleges across the province. The language situation in one public and one private medical college in this study reflects the need for Pakistani students to have a high level of proficiency in the English language since they deal with the large number of English related activities in their academic and professional roles. The EAMP and EOMP courses would help medical learners gain access to technical knowledge in their academics. It would facilitate the learners to get hold of advanced literary materials and keep updated with modern information in better and faster modes. It would provide valuable aids in getting through the international language testing/exams like TOEFL, GRE, or IELTS and similarly specialized degrees of their own field.

It will provide medical students with necessary language skills. It will facilitate them to comprehend lectures in English, reading textbooks, surfing internet, consulting medical journals, taking examinations both oral and written and presentations made by their classmates during the academic sessions. It will help improve the learners’ communication skills in the subject presentations dealing with patients’ history, describing case duties etc. It can help them master medical terminology and correct their pronunciation. It can aid in improving their pronunciation issues. As remedial support, universities/colleges or medical councils can conduct EOMP courses for doctors and other health professionals.

Furthermore, with the collaboration of universities, medical firms can arrange EOMP courses for medical doctors to provide them on job training. Similarly, certain government departments and companies in the private sector can arrange EOMP courses for these employees who deal with the medical related issues in their professional routine work. This project is a starting point for EAMP/EOMP research in Pakistan. Further research in areas like materials development, material evaluation, assessment, teacher trainings and discourse analysis etc. in Pakistani EAMP/EOMP settings may begin by taking insights from the findings of this research. A further study can be conducted for the exploration of various perspectives related to the fields of EAMP and EOMP.
1.11. Research Design

I carried out present study to find answers of main and subsidiary research questions by means of survey design. I followed the method of sampling. I constructed four different questionnaires for four population groups: students of medicine, teachers of medicine, medical trainees, and medical administrators. I conducted pilot study prior to the actual administration of questionnaires. For close-ended items of the questionnaires, data were analyzed quantitatively by using SPSS (Statistical Package for Social Sciences), whereas open-ended items of the questionnaires were analyzed qualitatively by reviewing responses, grouping related responses and identifying common themes.

1.12. Reasons for Undertaking this Research Project

The following reasons were taken into account for undertaking this research project:

- In Pakistani medical colleges there are no courses of English taught in medical colleges. The students who get admission in medical college are taught general English (GE) course at their higher secondary level of education. GE is not a standardized choice for the medical students who are exposed to English from their academics to occupation in a medical college where the medium of instruction is only English.

- The research in applied linguistics has shown that English for medicine is a distinct variety in the field of ESP. English for medical students is different from GE to meet the specific academic and occupational needs of the students of medicine. Therefore, it is necessary to recommend a course of English for Medical Purposes (EMP) that fulfills the academic and occupational communicative needs of medical students.

- The courses in GE are not designed on the basis of needs analysis conducted in order to identify specific needs of the students of medicine keeping in view their academic and occupational situations. Hence, GE courses do not cater to the individual needs of medical students with regard to actual situation. Therefore, recommendation of an EMP course was necessary on the basis of needs analyses conducted.
In Pakistan, the medical students come to join a medical college from varied linguistic and social backgrounds where the impact of their regional language is more dominant on their lives, which affects their English language learning ability especially when they join professional studies.

A research was needed to identify the specific needs of medical learners as already done research addresses other areas of ESP (e.g., business, commerce and nursing and computer sciences). There are no courses available in Pakistan to address the specific needs of the students of medicine keeping their academic and occupational situations in view regarding communication skills (i.e., listening, speaking, reading and writing). Thus, it prompts for EMP needs analysis studies.

EAMP and EOMP in terms of needs analysis studies at such wider scale with the help of a large sample has never been researched in Pakistan. In the 1980, the Asia Foundation with the collaboration of the HEC (formerly known as the University Grants Commission) established English language centers in selected universities of Pakistan. These centers were aimed to teach ESP courses to the students of science and business. However, these language centers promoted research activities in the area of ESP besides teaching in the certain departments.

Although these language centers played an important role in the development of ESP in Pakistan, yet the area of EAMP/EOMP with reference to Pakistan has neither been researched at these centers nor elsewhere. Therefore, it was necessary to conduct a scientific research in this area in order to highlight the communicative needs of the students of medicine in Pakistan.

This research would provide empirical data for ESP programs in the field of medicine. ESP practitioners can take insights from this study in different areas of Pakistani education system and in medical education in EFL contexts.

ESP researchers and practitioners can draw comparisons and contrasts regarding language situation of medical learners in this research with other ESP studies around the world. This study would give a clear picture of role of English used in international workplace settings as a foreign language or lingua franca.
Therefore, such a course of English with specific purpose needs to be designed that should be implemented prior to actual start of the session of the students at medical colleges. The course may be adjusted in such a manner that the students can take best advantage out of it both during their academic session of five years as well as later when they enter into the medical profession as practicing doctors. All the above-mentioned reasons provided grounds to undertake needs analysis studies in the field of ESP for recommendation of EMP course for the students of medicine.

1.13. Definitions of Key Terms

The brief definitions of key terms used in this dissertation are given in the following:

**ESP**: ESP is defined as “courses where the syllabus and materials are determined in all essentials by the prior analysis of the communication needs of the learner” (McDonough, 1984, p. 3).

**Needs Analysis**: It is 'the process of determining the needs for which a learner or group of learners requires a language and arranging the needs according to priorities' (Richards, Platt J., & Platt H., 1992, pp. 242-243).

**Qualitative Research**: This type of research aims to produce rounded understandings on the basis of rich, contextual and detailed data. It is concerned with collecting and analyzing information in as many forms, chiefly non-numeric, as possible. Methods employed in this kind of research include three kinds of data collection: (1) in-depth, open ended interviews; (2) direct observation; and (3) written documents (Mason, 1996, p. 4).

**Quantitative Research**: This is a formal, objective, systematic process in which numerical data are utilized to obtain information about the world (Burns & Grove as cited by Cormack 1991, p.140).

**Purposive Sampling**: This is kind of sampling in which the researcher selects a sample based on his experience and knowledge of the group to be sampled (Gay & Airasian, 2003, p. 115).
Stratified Random Sampling: “It aims to divide your population into certain sections, and then take a random sample from each. This is a technique known as stratified random sampling” (Oliver, 2004, p. 128).

1.14. Organization of the Thesis

Chapter 1 is an introduction as it highlights background of the study, discusses English Language Teaching (ELT) situation in Pakistan, states the problem, presents aims and objectives, describes importance of medical profession in Pakistan and provides scope of study. In addition, it explains hypothesis, research questions, significance of study, research design and reasons for undertaking this project. The following chapter, Chapter 2, includes a detailed theoretical overview of ESP, EMP and needs analysis studies. Chapter 3 accounts for the methodology and models applied, procedures taken, and the data analyses techniques performed to carry out this study.

Chapter 4 reports the results related to demographics and thus presents findings related to frequency of usage of English in medical field. Chapter 5 reports findings related to importance of English in the medical field. Chapter 6 presents the analysis of existing level of proficiency of medical learners in English language skills. Chapter 7 reports analysis of the opinions of members of different groups of medical discourse community in terms of learning English at medical college. Chapter 8 reports findings in response to the open-ended questions related to English language needs of medical learners in Pakistan. Chapter 9 is a conclusion of this study, which discusses overall findings and thus offers implications of the study as well as suggestions for further research.
CHAPTER 2

LITERATURE REVIEW

This chapter reviews the literature related to English for Specific Purposes (ESP). The chapter is divided into three parts. Part I presents history, definitions, classifications and development of ESP. Part II takes into account the literature related to language descriptions, in the context of ESP. The use of English in the medical discourse community is discussed at great length with a special emphasis on English for Medical Purposes (EMP). Part III explains the importance of needs analysis (NA) and offers a detailed overview of the literature related to NA focusing on the purpose of research to analyze needs of the medical learners. This chapter concludes with examples of NA studies in the ESP and EMP contexts both in Pakistan and abroad.

2.1. Part I: English for Specific Purposes

In this part, I will examine the theory of ESP in various significant perspectives including the historical background, definitions, basic concepts, classification and evolution of ESP.

2.1.1. History of ESP

Strevens (1977) suggested that ESP originated in the sixteenth century, with the production of specialized vocabularies and phrase books for diplomats, businessmen, and other travelers (as cited in Robinson, 1989, p. 399). Communicative Language Teaching (CLT) was the real factor that laid foundation for a needs-based philosophy, which emerged in 1980s in the field of language teaching in many parts of the world. It was particularly related to ESP and vocationally oriented program design (Brindley, 1984).
2.1.2. ESP and ELT (English Language Teaching)

There is a distinct relationship between English Language Teaching (ELT) and ESP. English as Second Language (ESL) and English as Foreign Language (EFL) as the branches of ELT have given rise to ESP and GE (Hutchinson & Waters, 1987, p. 53). According to Harmer (2001), ESP and ELT have differed in terms of their instructional objectives. ELT courses deal with four language skills: listening, speaking, reading, writing stressed equally, and a variety of topics. In these courses the teachers determine objectives as it is not known how, why, when learners need the language in future whereas, ESP courses are devised after the needs analysis is conducted thus instructional objectives are determined (p. 10).

2.1.3. ESP and EGP (English for General Purposes)

There is a controversy over the matter as to what exactly distinguishes ESP programs from English for General Purposes (EGP) courses (Hutchinson & Waters, 1987, p. 54). One clear distinction between ESP and EGP was that ESP courses were meant to serve a clearly “utilitarian purpose” (Mackay as cited in Robinson 1980, p. 6) whereas, EGP aimed at establishing a “general level of proficiency” (Crystal, 1996, p. 108).

Mentioning the difference between GE and ESP, Wright (1992) has argued that one of the differences between GE and ESP is that GE is concerned with everyday life whereas, a specific English course may contain material pertaining to GE course but “when we reach the stage at which any topic constitutes an individual’s profession, it becomes crucial that he have mastery of the specialized ESP language pertaining to it” (p. 1). Similarly, Widdowson (1983) attempted to draw a distinction between ESP and GE based on the degree of the specificity of the purpose they were meant to serve as:

ESP... seeks to provide learners with restricted competence to enable them to cope with certain clearly defined tasks. These tasks constitute the specific purpose that the ESP course is designed to meet. GPE, on the other hand,... has to be conceived in educational terms... (and) seeks to provide learners with a general capacity to cope with undefined eventualities in the future. (as cited in Mountford, 1988, p. 77)
2.1.4. Definitions of ESP

Strevens (1980) asserted that “a definition that is both simple and watertight is not easy to produce” (as cited in Robinson, 1991, p. 1). McDonough (1984) defined ESP as “courses where the syllabus and materials are determined in all essentials by the prior analysis of the communication needs of the learner” (p. 3) and ESP was a kind of teaching activity with its own range of “emphases and priorities” (p. 4). Dudley Evans and Johns (1991) have remarked that ESP is “the careful research and design of pedagogical materials and activities for an identifiable group of adult learners within a specific learning context” (p. 298). Hutchinson and Waters (1992) have rationalized that ESP is an approach and not a product, “in which all decisions as to content and method are based on the learner’s reason for learning” (p. 19).

Lorenzo (2005) has claimed that ESP focuses more at the contextual situation rather than on teaching and learning of grammatical structures and rules of language (p. 1). Carter (1983) has rationalized that ESP course is conducted with an object to turn learners into the users of language in target situations because determining self-direction plays an important role in this regard (p. 134). Dudley-Evans and St. John (1998) have presented another definition of ESP that has absolute and variable characteristics:

I. Absolute Characteristics

- ESP is designed to meet specific needs of the learners;
- ESP makes use of underlying methodology and activities of the discipline it serves;
- ESP is centered on the language (grammar, lexis, register), appropriate to these activities.

II. 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, either at a tertiary level institution or in a professional work situation. It could, however, be used for learners at secondary school level;
• ESP is generally designed for intermediate or advanced students;
• Most ESP courses assume some basic knowledge of the language systems, but it can be used with beginners. (pp. 4-5)

The description of the above-mentioned characteristics presented by Dudley Evans and St. John (1998, pp. 4-5) followed the work of Strevens (1988) to a greater extent however, the absolute characteristic that “ESP is in contrast with General English” (1988, pp.1-2) had been removed and more variable characteristics were included instead. Dudley Evans and St. John (1998) have argued that each definition has validity but also weaknesses either in the definition or in the features described (pp. 3-4).

2.1.5. The Basic Concepts in ESP

There are five basic concepts of ESP:

2.1.5.1. Authenticity

According to Close (1992), the ESP material practitioners had taken the conception of authenticity mainly to the reading skill in this approach. It was helpful in developing communicative competence that was the major objective of ESP. This objective could be achieved only through an adoption of authentic materials related to the specific needs of the learners such as aviation, business, law, medicine and engineering etc. According to Peacock (1997), authentic materials are produced to fulfill some social purpose in the language community. For example, a radio news report brought into the class so students can discuss the report on pollution in the city where learners live (“Authentic Materials: An Overview”, 2002).

2.1.5.2. Research Base

Halliday, McIntosh and Strevens (1964) stressed the importance of need for a research in the field of ESP. This was a call for a programme of research into ESP registers that was taken up by several early ESP material writers (Ewer & Latorre, 1969; Herbert, 1965).
2.1.5.3. Language/Text

In the 1990s, there were a number of ESP projects that were triggered by concerns over international safety and security. West (1997) reported that the projects were concerned with the transport safety (p. 35). The first of these was SEASPEAK (Weeks; Glover; Johnson; Strevens, 1988). It was a practical project in applied linguistics and language of engineering that gave prominence to language/text in professional fields.

2.1.5.4. Learning Needs

According to Mackay and Mountford (1978), learning needs of the students/learners should be the focus in order to bring effective results. Therefore, language teaching must be designed for the “specific learning” and thus the language use purposes of identified groups of students must be the priority (p. 6).

2.1.5.5. Learning Methodology

According to Hutchinson and Waters (1987), a new generation of ESP materials was established as a result of strategy analysis that focused at learning methodology and their conception was based on the notion of language learning rather than language use therefore, they referred to it as, ‘learning-centered’ approach also stressed the importance of a relevant teaching/learning style in ESP materials (p. 81).

2.1.6. Classification of ESP

Mackay and Mountford (1978) have indicated that there are three following kinds of the purposes for which students learn English:

1. Occupational requirements; for international telephone operations, civil airline, pilot, etc.,
2. Vocational training programme; for hotel and catering staff, technical trades, etc.,
3. Academic or professional study; engineering, medicine, law, etc. (p. 2).

Munby (1978) divided ESP into two following groups:

1. English for Occupational Purposes (EOP) “where the participant needs English to perform all or part of his occupational duties”
2. English for educational purposes (English for Academic Purposes or EAP)
“where the participant needs English to pursue part or all of his studies” (p. 55).

EST has been the main area in EAP, but English for Medical Purposes (EMP) and English for Legal Purposes (ELP) have always had their own place (Dudley- Evans & St. John, 1998, p. 7).

2.1.7. English for Academic and Occupational Purposes

EAP can generally be defined as English courses, which are “concerned with those communication skills in English required for study purposes in formal systems” (Jordan, 1997, p. 1). According to Coffey (1984), in the area of teaching EAP two following approaches have emerged:

1. The Common-Core English that is concerned with general academic language and it focuses on study skills,
2. The Subject-Specific English that focuses on examining the language features of individual academic disciplines or subjects (as cited in Jordan, 1997, p. 4).

Hutchinson and Waters (1987) have remarked that ESP is divided into three branches: English for Science and Technology (EST), English for Business and Economics (EBE), and English for Social Studies (ESS). Each of these subject areas is further divided into two branches; EAP and EOP. An example of EOP for the EST branch is English for Technicians whereas, an example of EAP for the EST branch is English for Medical Studies. Hutchinson and Waters (1987) have indicated that there is no clear-cut distinction between EAP and EOP as “… people can work and study simultaneously; it is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job” (pp. 16-17).

2.1.8. Motivation of Learner in ESP

The assumption underlying this approach is that the clear relevance of the English course to the needs of learners would improve their motivation level (Hutchinson & Waters, 1987, p. 8). Harmer (2007) has indicated about extrinsic motivation, which students bring into the class from outside and intrinsic motivation that is generated by things that happen in the classroom (p. 20).
2.1.9. ESP Courses

ESP courses focus on preparing learners for chosen communicative environments (Mohan, 1986, p.15). “Learner’s purpose” (Graham & Beardsley, 1986) and thus “learning centeredness” (Carter, 1983; Hutchinson & Waters, 1987) are integral parts of ESP. The use of authentic content materials, modified or unmodified in form, is indeed a feature of ESP. Purpose-related orientation refers to the simulation of communicative tasks required for the target setting. Finally, self-direction is the characteristic of ESP courses in that the “... point of including self-direction ... is that ESP is concerned with turning learners into users” (Carter, 1983, p. 134).

The problems may be different according to the specific needs and contexts of the learners. Therefore, the problems should be carefully systemized to help in devising a most effective course of instruction. Belcher (2006) remarked that “ESP assumes that the problems are unique to specific learners in specific contexts and thus must be carefully delineated and addressed with tailored to fit instruction” (p. 135).

Jordan (1997) has noted the type of language activities that students are expected to employ with regard to specific EAP skills. These activities include reading journal papers and books; listening to lectures and talks; participating in seminars, tutorials and discussions; writing essays, reports, projects, case studies, dissertations and theses. In addition, students are expected to perform the tasks (e.g., doing laboratory or fieldwork, conducting research, compiling reference materials, and taking oral or written examinations).

According to Dudley Evans and St. John (1998), EOP refers to the trainings for professionals and university courses serving this purpose may be best referred to as pre-service EOP. This type of class usually provides training in business skills such as presentations, report writing, meetings, and negotiations. Pre-service EOP courses may also be grouped by industry, for example courses offered in Tourism English (TE), Trade and Economics English (TEE), and Communication Skills for Public Relations (CSPR), among others.
2.1.10. Reasons for the Evolution of ESP

Hutchinson and Waters (1987, pp. 6-8) have given three following convergent reasons for the emergence of ESP:

2.1.10.1. The Demands of a Brave New World

The development of ESP has been described as one which began as “an answer to a surge in perceived language needs which came in the wake of a dramatic growth in science, industry and commerce on an international scale in the 1950s” (Bauer, 1989, p. 66). According to Hutchinson and Waters (1987), the Oil Crisis of the early 1970s resulted in Western money and knowledge flowing into the oil-rich countries. The language of knowledge became English and it led to the exerting of pressure on the language teaching profession to deliver the required goods. In this regard, there were two historical periods, which led to the creation of ESP (i.e., the end of World War II and the Oil Crisis in the 70s). The end of the Second World War in 1945 brought about an era of expansion in scientific, technical and economic activities throughout the world. English was learnt as a key to international currency and an international language of technology and commerce. It was market driven as relates the dynamism of ESP to the market forces and theoretical renewal. Thus, English had previously decided its own destiny, then became subject to the wishes, needs and demands of people other than language teachers (pp. 6-7).

According to Graddol (1997), majority of non-native speakers (NNS) wanted to learn English in preference to the world’s other main languages in order to achieve economic supremacy that was the dominating spirit of the ‘New World’. A great number of NNS learnt English to have an access to scientific and technological advancements as most research, after World War II, had been carried out in English speaking countries. People were instrumentally motivated to study English because it became the language of manuals, textbooks and journals in specialized fields, and the language of selling of products. The demand increased with the influx of oil and English was taught on the demands and wishes of people.

Similarly, in Pakistan, the medium of instruction in the field of medicine is English where the English language competence plays a significant role in the academic and occupational settings of the medical education. English has become a natural choice
in Pakistan for medical discourse community due to its role as lingua franca internationally. Thus, the role of ESP has a need to be assessed.

2.1.10.2. A Revolution in Linguistics

Another tremendous factor responsible for the emergence of ESP was a “Revolution in Linguistics”. The ESP approach represented a move in focus from a Chomskyan influenced register analysis to needs analysis. Previously, language needs were based on formal linguistics categories that focused theoretically on creating a register to develop a special language for a certain group of learners. This method was called register analysis and was based on the principle that different groups of learners required different lexical and grammatical rules to learn English (Hutchinson & Waters, 1992). For example English for engineers requires a special register that includes the most common grammatical and lexical features used in their field (Alharby, 2005).

One significant discovery was in the ways that spoken and written English varied. That was, the context determined what was said or written (Hutchinson & Waters, 1987). Hence, traditional linguists set out to describe the features of language whereas, revolutionary pioneers in linguistics began to focus on the ways in which language was used in real communication. New studies shifted attention away from defining the formal features of language usage to discovering the ways in which language was actually used in real situations of communication (Umera- Okeke, 2005, p. 5).

2.1.10.3. Focus on the Learner

The third factor responsible for the emergence and growth of ESP was the “focus on the learner” (Hutchinson & Waters, 1987, p. 8). The emphasis was laid on learner-centeredness and relevance to the learner with respect to course contents. This led to a focus on learners’ needs and designing specific courses to cater to the individual needs. Learner’s motivation was also seen to have an important influence on the effectiveness of learning. Texts were taken from the learner’s area of specialization and English lessons were developed from them (Hutchinson & Waters, 1987).
2.2. Part II: Language Descriptions

This part comprises of two sections. In Section A, I will review literature related to language descriptions in the context of ESP. The Section B will be followed by a discussion on the description of English as language of medicine in the English for Medical Purposes (EMP) context.

Section A:

2.2.1. Language Descriptions and ESP

In this section, I will discuss three phases of language description in order of the historical development of ESP: Register Analysis, Discourse Analysis, and Genre Analysis.

2.2.1.1. Register Analysis

According to Halliday (1964), the name register was given to “a variety of a language distinguished according to use” (as cited in Widdowson, 1978, p. 122). Register analysis largely focused on the scientific and technical English. A course in basic scientific English was a typical example of an ESP syllabus based on register analysis. This kind of analysis identifies the features of English, which are specified to a certain discipline (Hutchinson & Waters, 1987, pp. 9-10). Materials produced under the banner of register analysis concentrated on a restricted range of grammar and vocabulary such as tense, frequency, sentence types, etc. instead of language use and communication. The attempts to resolve it led to rhetorical and discourse analysis in early 1970s (Dudley-Evans & St. John, 1998). Spolsky (1998) presented the definition of register as:

A register is a variety of language most likely to be used in a specific situation and with particular roles statuses involved. Examples might be a toast at a wedding, sports broadcast or talking to a baby. A register is marked by choices of vocabulary and of other aspects of style. (p. 34)

Brumfit (as cited in Robinson, 1980) has observed that the notion of register must be taken into account in ESP as we deal with special language in ESP (p. 16). There are many linguists who are renowned specifically with reference to the theory of register analysis as Jordan (1997) mentioned:
The names of Halliday, McIntosh and Strevens (1964) are usually associated with the concept of register in ESP. However, Michel West was, perhaps, the true originator of register analysis in 1936 with his count of the frequency of the occurrence of the meaning and uses of words in a study of five million running words. This was reprinted as General Service List of five million running words (Longman, 1953) and presented a list of 2000 of the most common words ‘considered suitable as the basis of vocabulary for learning English as a foreign language’. It included a supplementary word list for the writing of ‘popular science and technology’. (p. 228)

Ewer and Latorre (1969) presented the famous notion of ESP in 1960s that was primarily based on the register analysis of the scientific texts (Jordan, 1997, pp. 228-229). The criticism on register analysis theory was as:

1. Register analysis restricts the study of texts to the level of word and sentence (West, 1998).
2. The descriptive nature of register analysis is significant however; it entirely overlooks the explanatory side of the analysis (Robinson, 1991).
3. According to Coffey, “In short, register cannot be used...because there is no significant way in which the language of science differs from any other kind of language” (Coffey, 1984, pp. 4-5).

2.2.1.2. Discourse Analysis

Cook (1989) has argued that discourse analysis looks at the way in which sentences are linked together in a text to form a wider definition of meaning than the study of register has. This includes studying the concept of coherence, “the quality of being meaningful and unified” (p. 4), and cohesion “links between sentences and between clauses” (p. 14) and how meaning is tied together, (e.g., through formal grammatical devices). West (1997) noted that the reaction against register analysis in the early 1970s concentrated on the communicative values of discourse rather than the lexical and grammatical properties of register (p. 36). Discourse community, is one which separated people into “occupational or specialty-interest groups” (Swales, 1990, p. 24).
Widdowson (1979) stressed the need of a program of research into the discourse of scientific communities. Allen and Widdowson (1974) have remarked that the difficulties students experience do not so much arise from defective knowledge of the system of English but from unfamiliarity with English. Their needs can be met by a course, which develops knowledge of how sentences are used in the performance of different communication acts (p. 10). The discourse analysis approach soon came under attack as:

1. One of the shortcomings of the discourse analysis was that its treatment remained fragmentary, identifying the functional units of which discourse was composed at sentence/utterance level but offering limited guidance on how functions and sentences/utterances fit together to form text (West, 1998).
2. “We are given little idea of how these functions combine to make longer texts” (Robinson, 1981, p. 54).

2.2.1.3. Genre Analysis

The term “genre” was first used by Swales (as cited in Robinson, 1991, pp. 10-11). Swales’ approach (1990) has provided useful information of great insight in an original contribution which he calls "genre-analysis" and which is determining for reading texts in science and technology (Johns & Dudley-Evans, 1993, p. 117). Dudley-Evans stated that:

It has characteristic features of style and form that are recognized, either overtly or covertly, by those who use the genre. Thus, for example, the research article has a known public purpose, and has conventions about layout, form and style that are to a large degree standardized. (as cited in Jordan, 1997, p. 231)

West (1997) has noted the difference between genre and discourse analysis by referring to a study done on business telephone calls saying that “while discourse analysis identifies the functional components of the calls, genre analysis enables the materials writer to sequence these functions into a series to capture the overall structure of such texts” (p. 36). Taking insights from Swales (1990), Bhatia (1993) encapsulated about genre as:
“It is a recognizable communicative event characterized by a set of communicative purpose(s) identified and mutually understood by the members of professional and academic community in which it regularly occurs” (p. 13).

Hence, the concept of text - the genre analysis approach - came to make up for the shortcomings of the discourse analysis approach as it considered text as a total entity rather than a collection of unrelated units. Dudley-Evans (1987) suggested that “If we are to teach the writing of certain very specific texts such as ... the business or technical report, we need a system analysis that shows how each type of text differs from other types” (as cited in Allen & Widdowson, 1974, p. 2). Genre is usually recognized in three following areas:

1. Australian Genre Theory

2.2.1.3.1. The Australian School (Sidney School Studies)

In this approach, language is seen as the realization of social context. Social context determines and influences language, and in turn is determined and influenced by language (Halliday & Martin, 1993, pp. 24-25). As regards language in systemic functional linguistics one can distinguish three following “levels of context” (Halliday, 1985):

1. Field refers to what is happening in a specific situation,
2. Tenor is linked to the participants, and their roles and relationships in the situation,
3. Mode describes the language that is used in more detail, and the channel of communication and function of language in a specific context (Halliday & Martin, 1993, pp. 32-33).
2.2.1.3.2. North American New Rhetoric Studies

New Rhetoric scholars have seen genres as fulfilling social purposes in their situational contexts, and so the focus is on functional and socio-contextual aspects of genres (Hyon, 1996, p. 696). One important concept linked to the New Rhetoric approach is that of genre systems. System of genres is “interrelated genres that interact with each other in specific settings” (Bazerman, 1994, p. 97). Some New Rhetoric scholars (Bazerman, 1994) have made use of ethnographic methods such as interviews and observations in order to investigate genres. Since genres are seen as social action, ethnographic methods enable researchers to retrieve information regarding socio-contextual aspects such as the attitude of community members towards specific genres (Hyon, 1996, p. 698).

2.2.1.3.3. The British ESP School

The ESP approach to genre is, sometimes referred to as the British ESP School (Bhatia, 2004, p. 10). The underlying idea of this approach is to explore spoken and written genres from academic and professional settings according to their communicative purposes and realizations (Bhatia, 2004, p. 9). It is the writer’s communicative purpose that determines the formal characteristics, such as grammatical and lexical choices, of a genre text (Dudley-Evans, 1994, p. 219). According to Hyland (2003), the notion of genre has become such a familiar feature of ESP that it is difficult to see how we ever lived without it. Genre approaches have had a major impact on our work, supporting the growth of both socially informed theories of language in ESP and pedagogies grounded in texts and contexts (p. 213).
Section B:

2.2.2. English for Medical Purposes

In this section, I will discuss literature related to Medical English (ME) with special emphasis on English for Medical Purposes (EMP) beginning with definition, history and a detailed description.

2.2.2.1. Medical English

According to Maher (1986), a specialized technical language such as the language of medicine can be defined as a “restricted repertoire of words and expressions selected from the whole language to cover every requirement within a well-defined context” (p. 117). English in this sense is a “means of furthering the student’s specialist education or ... a means of performing a social or working role, that is, a working role as a scientist, technologist, technician... efficiently” (Mackay & Mountford, 1978, p. 1).

Medicine as the science and art of maintaining and restoring human health through the study, diagnosis, and treatment of patients has encompassed the fields of clinical medicine and surgery, medical research, biomedicine, and other health sciences as well. The language of medicine is one of the technical languages that are investigated for their instrumental role both in medical diagnosis and in treatment. Social and interactional research has been carried out on medical discourse since the 1970s (Engel, 1977; Fisher & Todd, 1983).

Recent research topics include physician-patient interaction, medical socialization, medical ethics, and the representation of science and medicine in literature, whereas the social and cultural determinants of diseases are also explored through language use (Putnam, 1975; West, 1990). Medical terminology, medical text patterns, and medical text and discourse content have been developed as a means of dealing with reality in a way that is appropriate for medical purposes (Gunnarson, 2006).

According to traditional concept, medical language is regarded as the language used by medical experts when communicating in an expert-to-expert context. It is the language of the “specialist”, a special language as opposed to general language used by the general public. Medical terminology evolves due to the need for physicians in a field
to communicate with precision and brevity, but this often has the (usually) undesired effect of excluding those who are unfamiliar with the particular specialized language of the group. This can cause difficulties when, for example, patients are unable to follow the discussions of physicians and thus, cannot understand information about their own condition and treatment. English has been the most widespread lingua franca of the western world used in sciences, and among them is medicine. Different sciences have used English to various degrees. However, English is considered to be the only language of wider communication within medicine and mathematics (Ammon, 1994; Medgyes & Kaplan, 1992).

Ammon and Hellinger (1992) pointed out that “English has become so dominant as the international language of science, especially of scientific publications, that its use seems to be necessary if one wants to be read or discussed outside of one's own country” (p. viii). English may be seen as a neutral lingua franca or it may be seen as a dominating powerful language (Tardy, 2004). After a lifetime of work on scientific English, Swales is so concerned about other languages of scholarship being on the way to extinction. According to him, English may even be seen acting as something of “a powerful carnivore gobbling up the other denizens of the academic linguistic grazing grounds” (Swales, 1997, p. 374). Thus, Non-English speaking physicians, researchers and practicing doctors have no other option but to learn English if they want to be informed of the latest developments in their fields (Alcaraz & Navarro, 2006).

The trend to use one lingua franca, English, leads to the use of technical terms in English even in daily non-English language conversations of medical experts as Frank (2000) acknowledged that medical communication attracted attention from various disciplines, including communication studies, nursing, medicine, health education, and (more recently) the field of ESP. The studies conducted in the field of ESP focused on the following three subjects related to field of medicine:

a. medical professionals who seek to work in an English-speaking country,
b. medical professionals who would like to make publications in the mainly English-dominated research and publishing world or who wish to participate in international conferences,
c. international students who would like to study medicine in an English-speaking country (p. 31).
According to Master (2005), in the last five years the field of EMP has existed strongly in international countries ranging from Hong Kong to the United States. The term lingua franca has been used to explain the role of English as an instrument of communication around the world. Today, English has become the “Premier research language” (Swales, 2004, p. 33) specifically when we look at the language of medicine.

Nevertheless, the former lingua franca of medicine, Latin, has still kept its position in hospital communication between medical doctors and also in written documents; the diagnoses and the anatomical terminology are in Latin, and the rest of the medical report is in the national language (Keresztes, 2003; Taavitsainen, 2006). English-speaking nations form a virtual cartel over scientific information (Nylenna, Riis, & Karlsson, 1994) systems organized according to an English-based sociology of knowledge. In non-English speaking countries, scientific manuscripts submitted in the national language of the country are commonly considered inferior to English-language manuscripts of the same scientific quality (Vandenbroucke, 1989). An English version of a manuscript is considered more acceptable than a national language version of the same manuscript (Nylenna et al., 1994).

2.2.2.2. History of the Language of Medicine

According to Benfield and Howard (2000), the oldest medical writing is the Kahun Papyrus, which deals with veterinary medicine and women’s diseases. The earliest known written communications about surgery are the Edwin Smith Papyri, which came from Egypt in about the 17th century BC. Hippocrates (460 – 370 BC) illustrated the important place of Greek among the languages of science. Maimonides (1135 – 1204 AD), a great Hebrew physician, philosopher and ethicist, wrote in Arabic and Hebrew. As the strength of the Romans increased, the language of science became Latin. Latin remained a prerequisite for medical education in Europe until about 20 years ago and to this day most scientific terms and names are still based on Greek or Latin.

Lippert (1986) and Skudlik (1990) have illustrated the linguistic origin of medicine. The subdivision of the history of medicine by Lippert (1986) into four linguistic periods appeared to be the most clear and coherent overview. He stated that Greek was the original language of medicine, since traditionally doctors had a Greek
heritage. Latin then replaced it in the Middle Ages before the national languages became more and more important at the end of the 18th and the beginning of the 19th century. Finally, after the Second World War, the importance of English as the international language of medicine started to increase (p. 38).

English had not always been the dominant medium of international communication in the medical sciences. In the middle ages, there was no single lingua franca in medicine as at least three languages were widely used. Greek and Arabic also enjoyed their leading positions as the languages of medicine in the history of medical language. In Western Europe, Latin was established in every scientific field especially in the 11th century. Several medical works were translated from Greek and Arabic into Latin in that era (Maher, 1986). As a consequence of the spreading of French in the 17th century, first in France and then in the whole Europe, Latin was forced to a second place in the medical literature, and French emerged as the language of sciences. The French language became the primary language not only in medicine but also in each field of sciences and culture. He further remarked that after the French Revolution, the medical community mostly used the French language in Europe, sharing its prominence with German (Navarro, 1996).

This role was afterwards, overtaken by German and English in the 19th century, when journal publication in medicine started to play a part in nationalizing medical communication (Taavitsainen, 2006, p. 644). In the latter part of the 19th century and the early part of the 20th century, French remained the language of diplomacy, but German became the dominant language of science. At the beginning of the 20th century, German was clearly the language of science, and even US academic surgeons regularly took periods of their education in the great surgical clinics of Europe partially as part of the quest of a working knowledge of German (Benfield & Howard, 2000).

Gerok (2000) described this change as he stated that until the 1920s, Europe constituted the center of medical development. Therefore, the number of members of the scientific community was limited and there was no reason to publish but in one’s own national language. Whereas after the Second World War, other centers of scientific medicine began to develop, for example the USA and Japan, and the progressive globalization had consequences on the communication among scientists. Thus, researchers with English as their mother tongue were dominant and so the English (pp.
The victory of the English language in medicine over all other languages (and not only in Europe but worldwide) started during World War II. After World War II, when political and economic strength was centered in the English speaking nations, English became the language of medicine. Hence, English replaced earlier lingua francas as claimed by Frinculescu (2009). Table 2.1 shows the continuing growth of the use of English in medicine as:

Table 2.1

<table>
<thead>
<tr>
<th>Language</th>
<th>1980(%)</th>
<th>1990(%)</th>
<th>1996(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>72.2</td>
<td>79.5</td>
<td>88.6</td>
</tr>
<tr>
<td>German</td>
<td>5.8</td>
<td>3.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Japanese</td>
<td>2.8</td>
<td>2.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Spanish</td>
<td>1.3</td>
<td>1.5</td>
<td>1.2</td>
</tr>
</tbody>
</table>

2.2.2.3. Publishing in Journals

Medical research articles have been studied from various linguistic aspects (Atkinson, 1992; Bazerman, 1988; Gunnarson, 2006; Myers, 1990; Rébék-Nagy, 1997; Swales, 1990; Taaivitsainen, 2006) but the impact of the requirement on physicians that they should be able to communicate their findings in English and express themselves in English language properly if they wanted to be fully accepted members of the international academic community had been investigated by few researchers (Ammon, 2001; Ong, de Haes, & Lammes, 1995; Taaivitsainen & Pahta, 2003).

Medicine was a highly competitive field of international research and caused an immense increase of knowledge as pointed out by Busch-Lauer (2001, p. 849). Therefore, this knowledge was predominantly published in scientific journals. It required a triple competence of the writer:

a. The knowledge of the English language
b. The awareness of rhetorical conventions
c. The knowledge of the scientific subject field (p. 850).
In addition to the written communication, international conferences were an important component for the Medical English for Specific Purposes community to meet colleagues, exchange results and ideas, and discuss in face-to-face debates (p. 853). Publications in major international medical journals were considered more valuable, and these medical journals were almost all in English; in addition, most medical journals published in English refused to accept contributions in another language (Treanor, 1999). In 1995, for example, English was the language of over 95% of publications in the Science Citation Index; the remaining percentage was made up of French, German, Russian, and – at about 0.5–0.7% – all other languages (van Leeuwen, Moed, Tussen, Visser, & van Raan, 2001) and this trend reoccurred in the medical science (Egger, Zellweger-Zähner, Schneider, Junker, Lengeler, & Antes, 1997).

Maher (1986a) analyzed the computerized database, MEDLINE that included both one million articles from biomedical journals throughout the world to investigate language data from 1966 until 1983, also to evaluate the extent that English was used as an international language of medicine as lingua franca. It was seen that the use of EMP had 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 future. He pointed out that even in countries where English was not the mother tongue still journals of biomedicine were often published in English.

In the 1980s, according to Maher (1986a), 72% listed articles were published in English therefore, 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-months period and found that all 373 meetings but one specified English as the official language. Finally Maher 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 great majority of the participants regarded such literature as important and essential. As a result of his research, Maher strongly concluded that English had been adopted as the intranational communication vehicle of health care personnel.

Similarly, a recent 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 as cited in Swales, 2004) and in the Netherlands (Vanderbroucke, 1989 as cited in Swales, 2004), where in both cases medical scientists increasingly reported preferring to use English.

The International Federation (for Information and) on Documentation (IFID) reported that nearly 85% of all the scientific and technological information in the world was written and/or abstracted in English (Ammon, 2001). Thus, it has become necessary for the members of the medical community to be able to search scientific literature in English. Researchers must be able to express themselves in this language if they want to be fully accepted members of the international academic community. This has become more and more important over recent years as the pressure to produce work in English and publish internationally has increased. Within academia it has been said that one has to “publish in English or perish” (Bakewell, 1992; Viereck, 1996). Weinreich (1988) highlighted that the English language was used as a convenient strategy for coping with an ever-increasing amount of information; everything that was not in English was simply disregarded. The following Table 2.2 gives an overview of few selected journals, which changed from native tongue to English.
Table 2.2  
*Selected Journals that Changed from Native Tongue to English (Benfield & Howard 2000, p. 645)*

<table>
<thead>
<tr>
<th>Journal</th>
<th>Same original name</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Thoracic and Cardiovascular Surgeon</td>
<td>No</td>
<td>1978</td>
</tr>
<tr>
<td>Journal of Experimental Animal Science</td>
<td>No</td>
<td>1991</td>
</tr>
<tr>
<td>Annals of Thoracic and, Cardiovascular Surgery</td>
<td>No</td>
<td>1995</td>
</tr>
<tr>
<td>Journal of Cancer Research and Clinical</td>
<td>No</td>
<td>1997</td>
</tr>
</tbody>
</table>

One of the dangers of the increasing use of English in medicine was that it widened the gap between physicians, other health workers and patients; in the worst scenario, physicians would not be able to talk about their subject in their native language (Csedo, 2005). This would effectively lead to a breakdown in the communication between medical experts and the public at large, and also physicians working in primary health care still definitely needed medical literature to be available in their native language (Feher, 1997).

Since, English is the international language used in both written and oral communication between health professionals involved in research, and it is the language used even at national meetings (Gunnarsson, 2001). Therefore, in several non-English speaking countries, publishing in the native tongue has become a handicap to physicians with academic ambitions (Bakewell, 1992). On-going discussion shows criticism towards the increasing use of English. It is thought that domain loss is dividing people into two groups; the highly educated and the less educated (Taavitsainen & Pahta, 2003). It is clear that the well-educated group has known English well, since English is used in academic studies. This has brought pressure for scholars to write in their native tongue, and thus, made their thoughts clear also to non-academic audiences which do not have a good command of English, and are deprived of information on health and medicine.
(Taavitsainen & Pahta, 2003).

2.2.2.4. Need of Special Language Education for Medical Learners

According to Maher (1986b), the descriptive studies explaining the spread of English as an international medium of communication indicated the need to consider special language education for medical learners. In this respect, the practitioners of EMP have sought to design courses and materials to address the practical needs of these learners. EMP thus, refers to the teaching of English for health care personnel like doctors and nurses.

Similarly, in EMP like other ESP courses, the learners study English with an identifiable goal that is to bring efficient performance at work and attaining effective medical training. 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 medical meeting (Maher, 1986b). The NNS of English around the world frequently need to read medical English material as part of their university course work. A traditional view held by the instructors in such specialized courses is that knowledge of the medical terms, via a glossary, will provide the non-native reader with what he needs, particularly in medical texts. Experience has shown that even students with mastery over the medical terms become so frustrated in reading medical English that they seek native- language summaries of the English texts, or native language books covering roughly the same material, or do not read the material at all, but concentrate rather on taking verbatim lecture notes (Tiersky & Tiersky, 1992).

2.2.2.5. English for Medical Purposes (EMP): A Sub-set of ESP

Hull (2004) believed that EMP is a subset of ESP education that most often focuses on teaching aspects of medical English, particularly terminology. Often referred to, as ESP but the language of medicine is quite unique. It is fraught with technical, academic language and replete with slang, colloquialisms, abbreviations and acronyms. It has its own rules and structure. Health professionals must read, write, interpret, give directions, etcetera using a wide variety of abbreviations and acronyms that are extremely career-specific.
ME is also contextual. Doctors use academic and technical language interspersed with common speech and workplace jargon. It rarely focuses on complete or proper sentence structure. With regard to the level of ME, it is of advanced English, so it cannot be taught at the level of or in the same methods of basic English language teaching. EMP learners are health professionals or in the midst of health studies at the college or university level. Therefore, career-specific, highly technical language must be contextually based. The goal of learning English at this level is not to learn grammar and structure primarily, but to acquire and use the language of practice and social relations within the career. Though there is not much information about EMP, the above-mentioned description creates a detailed picture of EMP that can assist in teaching and developing EMP materials (Hull, 2004).

2.2.2.6. Medical Terminology

Medical terminology is a specific terminology used to achieve the purpose of communication in the health care field effectively and precisely, such as in writing diagnosis and doctors’ notes (Gylys &Wedding, 1983). Arakelian, Bartram, and Magnall (2003) addressed the topic of sub-technical language use in the hospital as:

There are many words which are used in everyday life, but have a special meaning when they are used in the hospital. It is halfway between general usage and highly technical medical language. It is often the cause of communication breakdown between native and non-native speakers, or between users of American and British English. (p.55)

Dirckx (2006) has reported that medical terminology is a vocabulary for accurately describing the human body and associated components, conditions and processes in a science-based manner. The medical terminology incorporates the following main characteristics:

a. It consists largely of nouns (Dirckx, 2006).

b. Many of the terms used in gross anatomy are taken from the vernacular in most languages (e.g., arm, back, breast, head or skull). Physicians rarely call these structures by any other names. For some parts of the body there are no “polite words”, so they use either a Latin term (e.g., anus) or an English one adapted from
Latin (e.g., testicle) (Dirckx, 2006).

c. Euphemism is another important characteristic of medical terminology. Examples have ranged from terminated pregnancy instead of abortion, erectile dysfunction for impotence, or terminate with extreme prejudice instead of kill (Dirckx, 1983). Sooner or later, euphemisms come to be so closely linked to the things named that they themselves become offensive and must be replaced in their turn. Alcoholism, for example, has been renamed ethanolism, which is slightly equivocal since most recent terms on this pattern (atropinism, iodism) denote acute intoxication. This is the usual destiny of euphemisms; in order to avoid the real name of what is thought indecent or improper, people use some innocent word (Jespersen, 1955, p. 230).

d. Physicians sometimes use metaphors or similes when describing an abnormal appearance, sound or odor (e.g., air hunger and rusty sputum). Abnormal structures or movements are depicted by terms like bamboo spine, cogwheel rigidity, flame hemorrhage or greenstick fracture (Drickx, 1983). Metaphor affected the field of medicine in the U.S since the jargon of the insurance industry and cost accountants was introduced after the Medicare Act of 1965, and the patient became the consumer. Medicine was once seen as a ministry to the sick, but this ethical and religious metaphor was being replaced by a business metaphor “Medicine has borrowed a metaphor from the commercial marketplace that is altering our medical culture. Increasingly, medicine is being perceived as a product rather than as a service” (Mustacchi & Krevans, 2001, pp. 14-16).

e. Some other medical terms refer to food or drink: (e.g., rice-water stool in cholera, strawberry hemangiomà, bread-and-butter heart in fibrinous pericarditis, or coffee-ground emesis). Another large class of metaphors included words referring to animals: staghorn calculus, spider angioma, harelip, camel-hump wave of the electrocardiogram or butterfly rash (Dirckx, 1983).

f. In English medical terminology, the basic vocabulary is composed of word roots derived mostly from Latin or Greek. For example English cardi- from the Greek kardia cannot be used alone to mean heart. The addition of a suffix (e.g., -ac, -ology) is needed for the proper form to mean pertaining to the heart (cardiac) or a specialist who examines the heart (cardiologist).
g. Bakey (1966) has pointed out that there is a tendency to turn nouns into verbs; for example: adrenalecticize (from adrenalectomy), hospitalize (from hospital) and so on (as cited in Maher, 1986b). Johnson (1980) mentioned that other examples of morphological particularities are coinage and contraction such as ‘urinalysis’, which is used instead of urinoanalysis, or ‘contraception’ instead of contraconception (as cited in Maher, 1986b).

h. In regard to the formation of the terms, yang (2005) has stated that medical vocabulary is not closed rule-governed system, but an open system consisting of a large number of low –frequency words and newly created words.

Erten (2003) has given examples of the frequently encountered roots from Greek origin as follows:

1. Cardi: heart
   Hepat: liver

Also, roots from Latin origin are as follows:

2. Cerv: related to the neck
   Cerebro: related to the brain

Boztas (1987) has classified the commonly used words in the following:

1. prefixes related to time and place:
   (e. g., ante-before; forward) antenatal-occurring before birth

2. prefixes related to size:
   (e. g., olig(o)-small; few) oligurian-small production of urine

3. prefixes relating to type:
   (e. g., andro-male; man; masculine) androgen-male sex hormone

4. prefixes denoting direction:
   (e. g., ad-toward; increase) adduct-move toward the midline
5. *prefixes denoting color:*

(e. g., alb-white) albinuria-white and colorless urine

6. *prefixes denoting quantity and number:*

(e. g., pan-all) pancarditis-inflammation of the entire heart

Boztas has also classified the suffixes unique to medical field as:

1. *suffixes denoting state or condition:*

(e. g., -agra: sever pain) myagra-sever muscle pain

2. *suffixes relating to medical actions:*

(e. g., -tripsy: surgical) neurotripsy-surgical crushing of nerve

**2.2.2.7. Medical Discourse**

When speaking of medical discourse one implies professional discourse, ‘discourse’ being used in its broadest sense, as a self-contained system of communication covering jargon, common ideological position (ideology), socialization, forms of discourse and interpersonal relationships (face systems) (Scollon & Scollon, 1995, pp. 95-98). Available evidence on professional discourse suggests that its major purpose is to convey information “as clearly, briefly, directly, and sincerely as possible” (Hoekje, 2007, p. 6, Scollon & Scollon, 1995, p. 94).

Brown and Levinson (1987) have remarked that freedom from bias is another characteristic of professional discourse. In addition, communication should be civil and respectful, so as not to appear offensive or disrespectful to the other person/people (as cited in Hoekje, 2007, p. 6). Medical discourse is comprised of professional medical discourse as well as institutional medical discourse (Hoekje, 2007, p. 6). Students who enter the discourse community are slowly familiarized with the discourse system, which encompasses ideology, socialization, forms of discourse and face systems (Hoekje, 2007, p. 6). According to Swales (1990), a discourse community has the following characteristics:
a. “agreed sets of goals”,
b. “mechanisms for intercommunication”,
c. “exchanging information and feedback”,
d. “specific genres” and thus
e. “use of specific lexis” (pp. 24-26).

In addition, a discourse community is dependent on a balance of novice and expert members, the maintenance of balance being necessary for the survival of the discourse (Swales, 1990, pp. 24-26). Therefore, when aspiring doctors and nurses join the medical discourse community they have to be familiar with these principles. Most novice members enter the community when they start their career at medical institutions such as hospitals. Once they join the discourse community of medical personnel (e.g., when commencing internships in hospitals), they have to become familiar with the mechanisms of communication, be they mechanisms of intercommunication or mechanisms for providing information and feedback. In the case of medical personnel the use of mechanisms such as conferences, staff meetings, reports, e-mails, and other forms of correspondence are involved in order to communicate and thus to exchange information (Krois-Lindner, 2007).

In medical discourse there are different types of communication, depending on who is communicating with whom (Krois-Lindner, 2007). One type is inter-physician communication; doctors communicate with each other at conferences or via written journal articles (Krios-Linder, 2007). Doctors communicate with nurses and other personnel and vice versa. This communication plays only a minor role in the eyes of some researchers, as it seems to be restricted to situations such as changing shifts or talking about patient facts and figures. Communication with other hospital personnel (e.g., secretaries) tends to be ignored. Pathologists, for example, record autopsy reports; secretaries then type these up (Hoejke, 2007, p. 8).

Another type of communication occurs between medical personnel and patients. Whereas several studies have focused on doctor-patient communication, comparatively little research has been done on the topic of nurse-patient communication. Patients are often intimidated and do not ask questions in the course of a doctor-patient consultation. They sometimes turn to nurses to ask for clarification, or for emotional support. In the literature, however, doctor-patient communication has been the predominant topic of
research, as opposed to nurse-patient communication (Krois-Lindner, 2007). Medical discourse analysis is of interest to the applied linguist as it makes medical talk “visible” as recognizable conversation with its full repertoire of analytic features. Cicourel (1981) noted that:

“the medical interview is of value to the applied linguist because it highlights the physician and the linguist face similar problems: how to make visible those aspects of discourse and textual materials that seem intended, implied and misleading” (p. 84).

2.2.2.8. EMP as Genre of ESP

EMP is one of the genres in ESP. In fact medical students have various reasons for learning medical English. They need to read journals and books in medical genres. Doctors and nurses also need to read journals and books to speak to colleagues on professional visits, to make use of the expanding and increasingly important database available through the Internet, to participate in international conferences, to write up research for journal publication, to take postgraduate courses in the U.S. or in U.K. to work in hospitals where English is the first language or the lingua franca (Kawagoe, 2009).

EGP teachers who start teaching EMP have to learn how to deal with the new area not included in the common core - most noticeably vocabulary. They also have to get to know the classic “genres” or text types, so that language work can be appropriately contextualized. However, depending on the type of learner, EMP courses can also differ from EGP courses in that they may focus on specific skills (e.g., interviewing patients, or reading for information as opposed to extensive reading of stories). Typically, grammar is taught remedially, as arising from other work, rather than being an organizing focus (Dirckx, 2006).

The concept of genre is a key term in medical communication, as all medical communicative events can be classified into specific written or spoken genres. Editorials, research articles, abstracts, case reports, presentation papers or posters can be found in many other academic disciplines, however, each of them develop a set of peculiarities characteristic of the medical profession alone (Pique-Angordans & Posteguillo, 2006).
Genres change according to changes in sociocultural needs, new genres are created and older ones may cease to exist. Corpus-based studies have shown that genres of writing may be heterogeneous in their linguistic features and that there is a variation even within a narrowly defined genre (Bazerman & Paradis, 1991). Medical discourse evolves and emerges in relation to scientific practices. Written texts within professions give us insight into how the professions constitute themselves and carry out their work through texts (Bazerman, 1998).

Novice members must not only become familiar with the mechanism of communication, but also need to be aware of the genres that are particular to the discourse community. In medicine such genres can include medical reports, medical histories, patient information sheets (PIS), doctor-patient consultations etc. These genres also display specific lexis such as medical termini, abbreviations and acronyms, which can be confusing or misleading for outsiders and novice members (Swales, 1990, p. 26).

Medical writing is a general label with a great deal of variation across several genres, such as the research article, the experimental article, the review article, the case report, and the handbooks. Some genres of scientific and medical writing have so far received detailed attention, for example, studies of the medical research article, and the experimental report have been discussed by Atkinson (1992, 1996) and Rébék–Nagy (1997) and thus the experimental articles have been focused by Bazerman (1988). The most important genres for practicing physicians, the patient case notes, the hospital discharge summaries, referral and consultation letters, have not yet been extensively researched (Ramanathan, 2009; Van Naerssen, 1985; Warta, 2006; Yanoff, 1988).

Genres within this field are doctor-patient consultations, patient education sheets, letters etc. Lastly, medical personnel also often communicate with the wider public via health care websites or in other forms. The medical genre of PIS is a relatively new one that has only evolved during the last few years (Krois-Lindner, 2007). As far as the medical genre of PIS is concerned, it is important to view it in combination with other genres from the discipline, since they do not exist in isolation. They are only one of numerous genres of medical discourse. PIS fall in this category, as they are made available online (Pettinari, 1988, p. 12). Table 2.3 illustrates the types of communication held by a doctor.
Table 2.3

*Types of Communication (Krois-Lindner, 2007)*

<table>
<thead>
<tr>
<th>Types of communication</th>
<th>Genres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor – doctor (Inter-physician communication)</td>
<td>Journal articles, abstracts, reports, referral and reply letters, standardized documentations</td>
</tr>
<tr>
<td>Doctor – patient</td>
<td>Doctor-patient consultations (interview, physical examination), patient information sheets</td>
</tr>
<tr>
<td>Doctor – public</td>
<td>Websites, patient information material</td>
</tr>
</tbody>
</table>

Written genres include patient information material and medical history, but also reports, letters, articles and abstracts. Speech genres in medicine, for example, include doctor-patient consultations or pathology reports (Krois-Lindner, 2007). Pettinari (1988) compiled a list with regard to the information of medical record, which contains the following:

1. Identification data (such as the patient’s name, address, date of birth etc.)
2. Medical history
3. Report of the physical examination (can be combined with no. 2)
4. Diagnostic and therapeutic orders
5. Evidence of appropriate informed consent
6. Clinical observation (progress notes, consultations, nursing notes, post-anesthesia recovery report)
7. Reports of procedures, tests and results (operative report, pathology reports, clinical laboratory reports, radiology and nuclear medicine examinations or treatment, anesthesia reports, organ donor reports)
8. Conclusion at the end of hospitalization (discharge summary) (pp.12-15).
2.2.2.9. EMP: A Complex Character

Wiese (1984) has stated that in comparison with other sciences, EMP has a very complex character. There are three following kinds of communication in which EMP is needed:

1. The scientific communication among experts in theoretical and clinical medicine,
2. The communication of clinical every-day life between doctors or clinical staff,
3. The communication between doctor (representing a medical scientist) and patient (representing the society).

Concerning the international scientific communication of medicine, the dominance of English is remarkable in scientific journals. These magazines constitute the most important source of information, not only for medical scientists, but also for practical doctors. Although the medical terminology is traditionally based on Greek and Latin, a shifting from Latin to English simplifies international agreements nowadays (pp. 7-13).

2.2.2.10. Principal Goals of Medical Learners

The principal goals of the medical learners should be mastering specific vocabulary and idioms as well as improving their ability to communicate in English, especially with reference to their own particular area of work. To be able to do so, the learners should be at the high, intermediate or advanced level that is acquainted with the common structural patterns of the language (Tiersky & Tiersky, 1992).

EST researchers studying written ME (Smith, 1984; Atkinson, 1992; Gledhill, 1995; Gosden, 1992; Marco, 2000; Nwogu, 1997; Salager-Meyer, 1990; 1992; 1994; Thomas & Hawes, 1994; Webber, 1994) have focused chiefly on research articles, which are written for an audience of specialists, to the exclusion of texts designed for readers with different levels of knowledge about the subject matter.
In addition, Al-Sharief (1996) examined the ME texts produced exclusively for patients. Nation (1994) has suggested that teaching students strategies is especially important when it comes to dealing with low frequency words. Indeed, following Nation, Schmitt (2000) also recommended that high-frequency words should probably be taught, whereas learning low-frequency words will require strategies for determining their meaning. Acronyms and abbreviations are used extensively in medicine, science and technology for good reason—they are more essential in such fields. In medicine, they are used as convenient shorthand in writing medical records, instructions, and prescriptions, and as space-saving devices in printed literature. It is a reality of medicine and science that the number of acronyms and abbreviations is increasing dramatically.

2.2.2.11. A Program of EMP for International Medical Graduates (IMG)

An EMP Program has been devised in Canada in order to ensure the success of International Medical Graduates (IMG). Susan C. Meehan Applied Language Associates (2004) Canada prepared it. It highlights the following required areas of communication skills in EMP context:

i. Oral Skills

- Pronunciation – individual sound practice with emphasis on problem areas for the particular language groups for example word and sentence stress, intonation, and rhythm, tone will be emphasized, as it is often difficulties with these elements that greatly affect one’s fluency, and may cause serious miscommunication problems.
- Presentation Skills – for medical meetings or presenting cases to superiors. Study will include both presentation organization as well as techniques such as enunciation, body language, speed, cue usage etc.
- Teaching Skills – presenting material and describing procedures clearly to juniors, or patients.
- Doctor-Patient Conversation – the consultation: including greetings; determining complaints; taking histories; performing physicals; recommending treatments and closing consultations. Learning to explain diagnostic procedures or medical conditions in lay terms; encourage open communication by using open-ended questions; express empathy; check for
understanding; negotiate treatment; deliver bad news; etc.

- Discussion/Collaboration – With colleagues or at medical conferences and seminars: entering the discussion; expressing or asking for opinions; agreeing and disagreeing; asking for and giving clarification; and making suggestions.
- Daily Communications Skills: handling phone calls, requesting tests or consultations, interacting with other hospital personnel, etc.
- Spontaneous Conversation Skills: practice responding to topics without preparation. How to handle casual conversation situations, such as chatting with patients.

ii. Writing Skills

- The Medical Paper: writing for journals – the overall organization (abstract, introduction, methods, results and discussion).
- Language Functions in Medical/Scientific Writing – expressing purpose; expressing necessity; predicting; defining; expressing cause and effect; comparing; recommending, etc.
- Everyday Writing – notes, letters, charts, etc.

iii. Listening Skills

- Formal Presentations: Listening for organization, cues, etc. in formal medical presentations or note taking.
- Everyday Conversations: Practice listening actively to real conversations, which may occur in a medical practice, in order to gain familiarity with expressions, idioms, tone, inference etc., and to improve understanding of patients and colleagues.
- Listening Etiquette: Learn the ‘rules’ of listening, such as turn-taking, interruption etc. For example, learning to avoid interrupting, allowing patients to open up about their concerns.
iv. Reading Skills

- General – Skimming, scanning, reading to comprehend, recognizing emotion or position, applying word and sentence attack, etc. These skills are applied to the task of reading scientific medical papers and journals.

v. Vocabulary Skills

- Word Study Skills – using stem, prefixes and suffixes; context clues, and dictionaries of medical terminology.
- Vocabulary Differences: between physician and patient terminology.

vi. Cultural Awareness

- Cultural values and norms of the doctor-patient relationship – including comparison of cultural images of these roles (e.g., the doctor patient relationship as a partnership).
- Understanding social concerns of the culture.
- Understanding culturally acceptable boundaries – what questions are acceptable for a physician to ask?

This program has provided insights into various researchable areas with regard to EMP in Pakistani context.

2.2.2.12. Curriculum Design for ME (Medical English)

The curriculum design for medical English course should be based on ME, not on the structure or rules of English language. According to DuGas, Esson and Ronaldson (1999), it has followed an ‘A’-‘B’ format. Lesson ‘A’ has found its focus on vocabulary presentation and acquisition. Lesson ‘B’ provides opportunities to apply learning from the previous lesson into context. Learning activities in Lesson ‘B’ can include using actual hospital charts and forms, role-playing assessment, use of medical equipment, open exploration of treatments and interventions related to the main subject. Understanding that all students study medicines at the same time as well, discussions are enhanced as health professionals attempt to confer and consult; sometimes debate medical-health conditions and can be practices. Broken English is accepted. They have also mentioned that ME should be taught from the following perspectives of medicine and health care:
• It is necessary to reinforce vocabulary acquisition, grammar and structure.
• Teacher-tutors are required to be health professionals as well as language instructors.

However, lessons, interactions, and case studies have represented simple and complex medical practices, pharmacology, anatomy and physiology, pathology, treatment, etc. well beyond entry level English. Goals are set to prepare students for continuing studies in English, as preparation to licensing exams, and for English language competency at work that can be career-specific. Feedback from graduates of the medical faculties and the related students who have studied ME can be very helpful in regard to designing the new ME programs and applying the most proper approaches of teaching ME accordingly.

Medical English language teaching requires a new and modern approach. Research has shown that teaching ME should be different from teaching basic and GE language. Medical students accumulate a wealth of medical knowledge and skills in their medical education. The goal of learning English at this level is not to learn grammar and structure primarily, but to acquire and use the language in their medical studies. In order to help non-native English speaking, medical students acquire English medical jargon therefore, information about medical register and discourse should be combined with pedagogical skills of a language teacher.

Maher (1986a) has reminded 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 can be and what their purposes are. He has also pointed out the need for a specific syllabus that will enhance the communicative effectiveness of an English language course. 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.

Bailey (2000, Chap.10) described a course organized through the concept of
health to improve the students’ learning in an ESL context. The course started with journalistic writing, making use of Time Magazine, and then reading books on health-related topics, academic texts and autobiographies. Finally, dramas were performed after watching movies about medical issues. The writer concluded 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 concluded that the learners experienced the pleasure of learning in groups while focusing on real and engaging health issues.

The textbooks for teaching EMP by Lazaro (1999), Glendinning and Holmstrom (2005) are suitable for the learners of medical English, including students, doctors and those who intend to work abroad. The different skills, as well as cross-cultural awareness are practiced in the various units. Since medicine is a field of constant innovation and development, the content of the books is updated in each edition.

In terms of the objectives of medical English course, Shirvan (2008) has stated that the course should enable the medical students to read general and specific information, make conclusion from the given texts, find the synonyms and/or antonyms of the words, guess the meaning of any unknown word by using the context clues, distinguish and/or choose the correct lexical item related to medicine, make translations about medicine from both languages at the sentence level and paragraph one, get familiar with basic word parts in medicine, prefixes, suffixes, abbreviations, get familiar with medical topics and specialists, use translations in their special area, medicine, use the grammatical structures for communicative purposes and get familiar with medical terminologies. He has given four following reasons for the use of English instruction as the students may have:

1. to read academic materials in English,

2. to communicate with their counterparts from English speaking countries or non-English speaking countries for medical related purposes,

3. chances to study or work in English-speaking countries,

4. to use English extensively in their future career since it is widely used by medical professionals.
Shirvan (2008) has further suggested that when the curriculum designer begins to develop a course or series of courses in ME, s/he must consider who the students are, what their motivations are, and identify which perspective they wish their teachers to have.

### 2.2.2.13. Teaching EMP

According to the general division of ESP, EMP can be taught to medical students for an academic purpose at university. On the other hand, ME is transmitted in work or pre-work situations, for example to practicing doctors. It is therefore, very important to differentiate between the various needs of these groups (Dudley-Evans & St. John, 1998, p. 6). Medical students mainly need to read textbooks and articles, write essays and short clinical reports, whereas doctors have needed it to be able to read specialist articles, prepare papers and presentations for conferences, and interact with colleagues and patients when they will work in a foreign country (Dudley-Evans & St. John, 1998, p. 49).

Cumps (1994) has given examples to increase the four main competences of a foreign language. The listening practice can therefore, be practiced by dialogues between doctors and other doctors, patients or nurses and case histories on tape or video. Editorials, case reports, and of course scientific articles are used to develop the reading skills of learners. In order to present written medical information effectively, students should learn how to order and sequence related ideas by joining them logically, convincingly, and in paragraphs. The given material can eventually be used to improve speaking practice by the help of dialogues and presentations. 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 (p. 128).

Another approach suggested in the teaching of medical English, is problem-based learning (PBL). It is an approach mainly applied in medical education (Connelly & Seneque, 1999; Huey, 2001; Maxwell, Bellisimo, & Mergendoller, 2001; Norman & Schmidt, 2000) in order to better understand its application in EAP courses of medical faculties. It is necessary to understand the reasons for using it in medical teaching, and thus its common application procedures and aims. Huey (2001) described 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 had been widely discussed in the literature.

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; Connelly & Seneque, 1999; Hmelo, 1998; Shanley, 2007; Thomas as cited in Huey, 2001). Others have discussed how PBL can be applied to language learning. It is seen as a useful technique for teaching EAP for medical students, as it is a context based cooperative and student-centered approach (Wood & Head, 2004; Kimball, 1998).

Wood and Head (2004) conducted a case study using a 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 generated a problem, which could be a disease, and other groups discussed it and tried to come up with solutions. The researchers claimed that in this approach the tasks of the students were derived from the general problem to be solved rather than being generated by teacher, and were thus a simulation of what happened in the medical field. They further maintained that this approach responded directly to the students’ needs.

Kimball (1998) also proposed PBL tasks as useful tools for the simulation of medical target settings and also supported teaching through the web. In this course design, teachers structured lessons in the context of 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 medical students, as the concepts about new findings, and treatments were in English, and the medical resources the students needed to use all written in English.

These studies indicated that through the web and problem-based, learner centered activities, learners were able to experience real world discourse which other printed material could not have reflected efficiently. Along with the use of Internet, video cameras had proved invaluable for contextualized learning in EMP curricula (Belcher, 2004). The other approach to EMP teaching was the grammar translation method, which
was probably still a common feature of language courses throughout the world (Maher, 1986b). However, evidence against translation came from Maher (1986b) who argued that translation of medical texts might not be so effective in improving English competence but merely encouraged dependence upon the patience 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. Sezer (2000) pointed out that translation was potential source of errors.

In the field of medical translation, the most recent and notable work was that by Erten (2003), who published the book *Medical terminology and Translation of Medical texts*. In her book, the characteristics and formation of medical terminology, approaches to the translations of medical texts, examples of translation from English to Turkish, and criticism of some translated texts could be found. For those who could see benefit in translation, this book would provide good guidance to them.

2.2.2.14. Aspects of Learner Independence in EMP

Antic (2007) has pointed out the following aspects of learner autonomy in EMP classes:

- Developing awareness of the learning process
- Teacher gradually releases control
- Learners are given more responsibility for their studies
- Learners acting as teachers in designing and checking through activities
- Oral presentations by learners
- Learner – produced materials
- Feedback sessions
- Self and peer evaluation
- Use of authentic materials
- Building of positive attitudes for learner autonomy
- Accepting different degrees of autonomy in learners
- Teacher and peer support

Writing medical research works represents students' additional needs, which
appear during the course. As medical science becomes internationally widespread, the need to keep in touch for the sake of the development of the science has become increasingly important. Apart from honesty in reporting the results of the study, the most important element in medical scientific writing is clarity: the reader should be told why the study has been performed, what the research question is, what is done, what has been found and what the results will mean. When writing medical research works, students and even doctors have doubts concerning the use of appropriate tenses.

Teaching grammar focuses on its remedial function because it is taught not as goal but a tool. The emphasis is not on grammar point without medical relevance. In other words, the teaching of grammar is based on the minimum necessity for understanding academic texts. Generally, the tenses used in medical research works include: present simple, past simple and rarely the past perfect tense when writing about the history of the disease.

Hedging is used for expressing uncertainty, skepticism and open-mindedness and it plays a major role in medical discourses (Skelton, 1997; Smith, 1984) for example:

- Direct sentence: These findings suggest the following interpretation...
- Hedged sentence: These findings would/might/could suggest the following interpretation...

2.2.2.15. Further Pedagogical Implications

Hyland (2000) has recommended several pedagogical approaches to be taken in the ESP classroom. He has suggested that the students can conduct their own informal research on texts deemed appropriate by the EMP and content instructors (Biesenbach-Lucas, 1995, p. 406) and then can compare their findings to those of other EMP studies.

Moreover, based on the findings of some medical research articles (e.g., Smith, 1984; Marco, 2000; Nwogu, 1997; Salager-Meyer, 1994; Thomas & Hawes, 1994; Varttala, 1999; Webber, 1994), it is suggested that pre-experienced EMP students read and review articles relevant to their studies and write short reviews on topics covered in their medical textbooks so that they can practice using professional discourse conventions while reinforcing their understanding of the subject matter. For EMP students learning English and practicing medicine simultaneously will take an added importance for
publishing research in English. This is frequently seen as a way to advance careers, particularly in academic medicine, and will obtain notice from one’s peers around the world since English is the lingua franca of medicine (Maher, 1994; Misak, 2002).

2.2.2.16. Roles of the EMP Teacher

EMP teacher is an activator, consultant, and manager in teaching English for medicine. In this regard, Jordan (1997) stated:

The key quality needed by the ESP teacher is flexibility: the flexibility to change from being a general language to being a specific purpose teacher, and the flexibility to cope with different groups of students, often at a very short notice. (p. 122)

Gillies (as cited in Akihiko, 2009, p. 8) has observed the following roles of an EMP teacher:

1. Material writer - Often no suitable teaching materials are available, so teachers must prepare their own.

2. Course designer - A teacher of a small team may be asked to set up, design and administer courses.

3. Evaluator - Educational institutions often require student evaluation, for which test must be specially written and administered. Sponsors may require individual reports, and students may ask for references. Course evaluation may also be necessary, especially if the course and materials are either very new or very old.

4. Consultant - Teachers may have to diagnose individual learner needs and plan individual programs, especially for postgraduates writing theses and academics preparing research articles.

5. Diplomat - Obtaining the information and source materials to devise an EMP course may require diplomacy. So may explain the nature of an ESP course and gaining the approval of those who are paying for it.

6. Analyst - the teacher requires analytic techniques to identify and select the appropriate language for the course.
2.3. Part III: Needs Analysis

In this part, I will give a detailed account of the review of literature related to Needs Analysis (NA) as it offers grounds for the purpose of this research. This part ends with examples of NA studies in the ESP and EMP contexts both in Pakistan and abroad.

2.3.1. Development

West (1998) remarked that NA was extensively recognized and firmly established in the mid 1970s. It provided the course designers with an insight to examine learners’ purposes. Nunan (1988) revealed that during the 1970s, NA procedures made their appearance in language planning and became widespread in language teaching. Language with specific purposes became at the same time, Language for Specific Purposes (LSP) and thus LSP practitioners adopted NA as an approach to design a course (p. 43).

Nunan (1988) focused more on the information-gathering process; he stated, "techniques and procedures for collecting information to be used in syllabus design are referred to as needs analysis” (p. 13). Richards believed that "most of the literature on needs analysis originally came from the realm of TESP but needs analysis procedures have increasingly come to be seen as fundamental to the planning of general language courses" (as cited in West, 1994, p. 13).

2.3.2. Definitions and Significance of Needs Analysis

The result of NA should be a list of goals and objectives for the learners of the specific groups which should “serve as the basis for developing further materials, tests, evaluating strategies also for the re-evaluation of the precision and accuracy of the original needs assessment” (Brown, 1995, p. 35). Robinson (1991) remarked that NA had taken the needs of learners in terms of EAP and EOP: "...which aims to specify as closely as possible what exactly it is that students have to do through the medium of English" (p. 3). Johns and Dudley- Evans (1991) rationalized that it was: "...designed to meet specified needs of the learner" (p. 116). Consequently, “needs analysis can be seen as crucial part of an ESP Course” (Robinson, 2000, p. 196). Some formal definitions of NA are as follows:
Richards, Platt J., and Platt H. (1992) define NA as:

“the process of determining the needs for which a learner or group of learners requires a language and arranging the needs according to priorities” (pp. 242-243).

According to Richards (1984):

… needs analysis serves three main purposes: it provides a means of obtaining wider input into the content, design and implementation of language programme; it can be used in developing goals, objectives and content; and it can provide data for reviewing and evaluating an existing programme. (p. 5)

In terms of its significance, Dudley-Evans and St. John (1998) rationalized that, “Needs Analysis is the corner stone of ESP and leads to very focused language course” (p. 122). Hutchinson and Waters (1987) suggested that every language course should follow it (p. 53). These reasons made it fundamental to an ESP/EAP approach (Hamp-Lyons, 2001, p. 127). According to Robinson (1991), “needs analysis is generally regarded as critical to ESP, although ESP is by no means the only educational enterprise which makes use of it” (p. 7). Dudley-Evans and St. John (1998) have remarked that NA:

1. study aims to know learners as people, as language users and as language learners,
2. study also aims to know how language learning and skills learning can be maximized for a given learner group,
3. study aims to know the target situations and learning environment so that data can appropriately be interpreted (p. 126).

Brown (2001) indicated that NA was an important component in program evaluation which was usually conducted in the early stages of curriculum development and often depended on questionnaires, interviews, and linguistic analyses, as well as “conjecture, and a good deal of professional judgment” (p. 15).
2.3.3. Types of Needs

There are different types of needs as given in the following:

A. Objective and Subjective Needs

According to Brindley (1984), the “objective needs” are those which can be diagnosed by teachers on the basis of the analysis of personal data about learners along with information about their language proficiency and patterns of language use. However, the “subjective” needs (which are often “wants,” “desires,” “expectations” or other psychological manifestations) cannot be diagnosed as easily, or in many cases, even stated by learners themselves (p. 31). Robinson (1991) quoted Brindley's statement in which he defined and distinguished the objective and subjective needs of the learner:

The first of these terms...refers to needs which are derivable from different kinds of factual information about learners, their use of language in real-life communication situations as well as their current language proficiency and language difficulties. The second term refers to the cognitive and affective needs of the learner in the learning situation, derivable from information about affective and cognitive factors such as personality, confidence, attitudes, learner's wants and expectations with regard to the learning of English and their individual cognitive style and learning strategies. (p. 8)

B. Content and Process Needs

According to Nunan (1999), content refers to the syllabus and the needs particularly related to the issues of designing of syllabus are known as content needs. Whereas process needs refer to the selection and sequencing of learning tasks and experiences that are traditionally known as methodology (p. 149). Nunan (1999) has also distinguished between initial and ongoing NA. Initial NA is carried out before a course has begun by curriculum designers (often beyond the control of the teacher)–while teachers can conduct ongoing NA quite informally during the course of a program (pp. 147-151).
C. Target and Learning Needs

Hutchinson and Waters (1987) identified the following divisions:

1. Target Needs

They looked at the target situation needs in terms of necessities, lacks and wants as following:

i. Necessities: Jordan (1997) has referred necessities to the type of need that involves obtaining information about the situations in which the language is used (e.g., lectures, seminars, etc.) and the discourse components and linguistic features commonly used in them (e.g., functions, structures, vocabulary, etc.) (p. 25).

ii. Lacks: According to Hutchinson and Waters (1987), lacks indicate a gap between target proficiency and the existing proficiency of learner (p. 56).

iii. Wants: Nation (2000) has asserted that Wants are described as “what the learners think they need” (p. 2).

2. Learning Needs

Learning needs explain how students will be able to move from the starting point (lacks) to the destination (necessities). The target situation alone is not a reliable indicator, and that the condition of the learning situation, the learners' knowledge, skills, strategies, and motivation for learning are of prime importance (Hutchinson & Waters, 1987, p. 60).

2.3.4. Needs Assessment

Needs assessment extends beyond data collection and analysis to cover the utilization of findings (Reviere, Berkowitz, Carter, & Ferguson, 1996, p. 6). Graves (1996) indicated:

needs assessment involves finding out what the learners know and can do and what they need to learn or do so that the course can bridge the gap (or some part of it). Thus needs assessment involves seeking and interpreting information about one’s students’ needs so that the course will address them effectively. (pp. 12-13)
A needs assessment assures a flexible, responsive curriculum rather than fixed, linear curriculum determined ahead of time by instructors (Richards, 2001). Teacher’s choice of methodology and methods of assessment are shaped after a needs assessment (Richterich & Chancerel, 1987, p. 7). Hence, needs assessments are tools designed to identify what a particular group of persons lacks to achieve more satisfactory lives. Formal organizations must know what services and programs will adequately remediate or solve problems. Along the same lines, agencies must know if and how well their programs are working. Data acquired from needs assessment are decisions in planning programs and allocating resources (Reviere et al., 1996).

Gravatt, Richards, and Lewis (1997) have stated the following procedures, which have been used in investigating the language needs of non-English-background students at New Zealand University:

1. literature survey
2. analysis of wide range of survey questionnaires
3. contact with others who had conducted similar surveys
4. interviews with teachers to determine goals
5. identification of participating departments
6. presentation of project proposal to participating departments and identification of liaison person in each department
7. development of a pilot student and staff questionnaire
8. review of the questionnaires by colleagues
9. piloting of the questionnaires
10. selection of staff and student subjects
11. developing a schedule for collecting data
12. administration of questionnaires
13. follow-up interviews with selected participants
14. tabulation of responses
15. analysis of responses
16. writing up of report and recommendations (as cited in Richards, 2001).
2.3.5. Approaches to Needs Analysis

The approaches to NA are discussed as follows:

2.3.5.1. Target Situation Analysis (TSA)

Dudley-Evans and St. John (1998, p. 140) indicated that the term, “Target Situation Analysis” (TSA) was first introduced by Chambers (1980) as Chambers wrote:

Thus needs analysis should be concerned primarily with the establishment of communicative needs and their realizations, resulting from an analysis of the communication in the target situation - what I will refer to from now on as target situation analysis (TSA) to identify this more restricted sense of needs analysis. (p. 29)

It can be elaborated as, “what do students need to be able to do in English as a result of the course?” (Robinson, 2000, p.196). However, “The information sought for TSA may relate to two different stages in the students' lives. The English course may be preparing the students for a further training course, which will be conducted through the medium of English after which the students will then take up jobs. The English requirements of the training course and of the later job may well be different, but both need to be considered” (Robinson, 1991, p. 9).

Hutchinson and Waters (1987) asserted that it was “in essence a matter of asking questions about the target situation and the attitudes towards the situation of various participants in the learning process” (p. 59). Such type of analysis has elaborated the task and activities learners are/will use English for target situation therefore largely employs questionnaires as instrument. It generally includes objective, perceived and product-oriented needs. The outsiders from the facts are best capable of deriving objective and perceived needs (Dudley Evans & St. John, 1998, pp.124-125).
2.3.5.2. Present Situation Analysis (PSA)

The second major model in NA was the Present-Situation Analysis (PSA) proposed by Richterich and Chancerel (1980). The aim was to seek information about levels of ability, available curricula, teaching methods, and resources, views on language teaching and learning, surrounding society, and cultural elements. Therefore, “A Present Situation Analysis seeks to establish what the students are like at the start of their language course, investigating their strengths and weaknesses” (Robinson, 1991, p. 9).

The existing adequacy level of the communicative skills of the learners along with a detailed diagnosis of plus and weak areas was the concern of the PSA (Robinson, 1991, p. 8). Therefore, “In practice, one is likely to seek and find information relating to both PSA and TSA” (p. 9). Thus, "a PSA estimates strengths and weaknesses in language, skills, learning experiences" (Dudley-Evans & St. John, 1998, pp. 124-125).

2.3.5.3. Means Analysis

Dudley-Evans and St. John (1998) noted that Means Analysis looks at the environment in which a course will be run or, as in the original metaphor that generated the term, the environment in which a project will take root, grow healthy and survive. The two factors considered are the classroom culture and the management infrastructure and culture. An important perspective is that these are viewed not as negative constraints but as relevant feature. .... The relevant features perspective is a positive approach which says: ‘what will be best in this particular and given situation?’ (p. 124)

Dudley-Evans and St. John (1998) pointed out the limitation of Means Analysis as:

An acknowledgement that what works well in one situation may not work in another. While hotel staff around the world may share some similar language needs, how they learn the language, the conditions in which they are learning and where and how they apply the language are not the same. So the needs and how they are prioritized, ordered and then met will be different. (pp. 123-125)
2.3.5.4. Learner-centered Approach

Learner-centered approach puts the learners in the heart of decision-making process (Brown, 1995, p. 39). However, Learner-centered approach is farther from the truth, as the learner cannot determine learning as, “the learner is one factor to consider not the only one. …Society sets the target and the individuals must do their best to get as close to that target as is possible or reject it” (Hutchinson & Waters, 1986, p. 72).

2.3.6. Munby’s Model

Coffey (1984) wrote about Munby’s Model that “It telescopes two operations, needs analysis and course design, into one-and these must, obviously, be linked in the way that Munby showed” (p. 7).

2.3.6.1. Parameters in Munby’s Model

Munby (1978) has specified the following parameters in his model:

a. **Purposive domain** establishes the type of ESP, and then the purpose which the target language will be used for at the end of the course.

b. **The physical setting** specifies the spatial and temporal aspects of the situation where English will be used, and the psychological setting specifying the different environment in which English will be used.

c. **Interaction** identifies the learner’s interlocutors and predicts relationship between them.

d. **Instrumentality** specifies the medium (i.e., whether the language to be used is written, spoken, or both); mode (i.e., whether the language to be used is in the form of monologue, dialogue or any other); and channel of communication (i.e., whether it is face to face, radio, or any other).

e. Learners will have to understand or produce *dialects* in terms of their spatial, temporal, or social aspect.

f. **Communicative event** states what the participants will have to do productively or receptively.

g. **Communicative key** is the manner in which the participants will have to do the activities comprising an event (e.g., politely or impolitely).

h. **The Target level of linguistic proficiency** at the end of the ESP course, which may be different for different skills.
Hutchinson and Waters (1987, p. 59) provided a comprehensive target situation analysis framework, which consisted of a list of questions. Nevertheless, most of these questions were related to the Munbian model. Table 2.4 presents summary of these relations. Thus, Munby’s model has been criticized for the following reasons:

1. Munby’s model was inflexible, complex and time-consuming due to his attempt to be comprehensive. It cannot be considered entirely learner-centered rather focuses more on gathering data about learner rather than from the learner. Thus, it fails to transform the learner profile into language syllabus (West, 1994, pp. 9-10).

2. The model lacks concrete information on how to translate the lists of micro-skills into actual discourse (Brindley, 2000).
Table 2.4  
*Target Situation Analysis Framework (Hutchinson & Waters, 1987, p. 59)*  
*Adapted from Songhori, M. H., 2007, p. 8*  

<table>
<thead>
<tr>
<th>1. Why is language needed?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- for study;</td>
<td>cf. Munbian</td>
</tr>
<tr>
<td>- for work;</td>
<td>purposive domain</td>
</tr>
<tr>
<td>- for training;</td>
<td></td>
</tr>
<tr>
<td>- for a combination of these;</td>
<td></td>
</tr>
<tr>
<td>- for some other purposes, (e.g., status, examination promotion)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. How will the language be used?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Medium: speaking, writing, reading, etc.;</td>
<td>cf. Munbian</td>
</tr>
<tr>
<td>- Channel: (e.g., telephone, face to face);</td>
<td>Instrumentality</td>
</tr>
<tr>
<td>- Types of text or discourse: (e.g., academic text, lectures, catalogues, etc.).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. What will the content areas be?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Subjects: (e.g., medicine, biology, commerce, shipping, etc.);</td>
<td>cf. Munbian</td>
</tr>
<tr>
<td>- Level: technician, craftsman, postgraduate, etc.</td>
<td>Communicative event</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Where will the language be used?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Physical setting: (e.g., office, lecture theater, hotel, workshop, library);</td>
<td>cf. Munbian</td>
</tr>
<tr>
<td>- Human context: alone, meetings, demonstrations, telephone;</td>
<td>Setting (physical and psychological)</td>
</tr>
<tr>
<td>- Linguistic context: (e.g., in own country, abroad).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. When will the language be used?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Concurrently with the ESP course or subsequently;</td>
<td></td>
</tr>
<tr>
<td>- Frequently, seldom, in small amounts, in large chunks.</td>
<td></td>
</tr>
</tbody>
</table>
2.3.7. The Current Concept of Needs Analysis

Modern and comprehensive theory of NA took all the above-mentioned approaches into account (Dudley-Evans & St. John, 1998, p. 125). However, the students, the material designers, employers, teachers and the target situation can be the stakeholders in NA (Jordan, 1997, p. 29). Therefore, aim of the current concept of NA, according to Dudley-Evans and St. John (1998) was to:

Know learners as people, as language users and as language learners; to know how language learning and skills learning can be maximized for a given learner group; and finally to know the target situations and learning environment such that we can interpret the data appropriately. (p. 126)

2.3.8. Needs Analysis in Language Curriculum Development

Richards (1990) has given the following five dimensions of language curriculum development:

1. Needs analysis
2. Goals and objectives
3. Syllabus design
4. Methodology
5. Testing and evaluation (p. 20).

All these elements interact with each other therefore are essential to the process of curriculum development (Brown, 1995, p. 19). All decisions related to language teaching and learning are to be made after a needs analysis is conducted. Only then the language courses can be adjusted to the needs of the learners, and thus, motivate them (Stern, 1992, p. 43). Besides being useful in gathering input into the content, design and implementation; a NA can be used in developing goals, objectives and content and hence can “provide data for reviewing and evaluating an existing programme” (Richards, 1990, p. 2). According to Pratt (1980), NA has served three following purposes in a language curriculum development. It has:
1. provided mechanism for obtaining wider range of input into the content, design and implementation of language program through involving such people as learners, teachers, administrators, and employers in the planning process,
2. identified general and specific language needs that can be addressed in developing goals, objectives and content for a language program,
3. provided data that can serve as the basis for reviewing and evaluating an existing program (as cited in Richards, 1990, p. 1).

The information collected by the learners, teachers and administrators enables the curriculum designers to refine goals and objectives according to learners’ needs and tailor such specific courses of English that can effectively cater to their problem areas and needs (Brown, 2001, pp. 46-47).

NA is “a necessary step to be taken before developing an ESP course, the idea being that it is important to design a foreign language course which is relevant and as efficient as possible for the target group” (Koster, 2004b, p. 5). Hanges (1982) has drawn attention towards the fact that has asked a learner about what he wants and needs to learn as a useful activity considering its educational implications thus stated “Learners themselves can, with appropriate guidance, provide valuable information about situations in which they need to use the language” (as cited in Tarone & Yule, 1989, pp. 33-46).

NA can also be carried out at the end of the programme to assess and evaluate whether students’ needs have been met, what the weak and strong parts of the programme are, and what changes are necessary to bring further improvements (Kaufman, 1995, pp. 62-63). Robinson (1989) indicated that two following factors must be taken into consideration while conducting NA:

1. The first factor dealt with the requirements and objectives that must be attained by the learner during the period of his training,
2. The second concerned the aims and purposes after his training as for instance when the learner applied for a job or occupation, and the way he used his experience of English for real communicative purposes required in such a job (pp. 396-398).
2.3.9. Data Collection Methods

There are different methods of data collection used for NA studies as given in the following:

A. Instruments

Brown (1995, pp. 46-51) has listed following six types of instruments to be used in gathering NA information. He divides them into two groups according to the role of a need analyst:

- The first group consists of “existing information”, “tests” and “observations” a need analyst remains in the position of being an outsider, passively looking on the existing programme.
- “Interviews”, meetings” and “questionnaires” form the second group in which the analyst remains active in gathering information from the participants in the programme.

Existing information refers to data sources within a programme or to any pre-existing or already available information such as records on new or past students or external data sources, such as information exchanges with other existing programme with similar students. Tests serve various purposes of measurement, such as proficiency; diagnosis and achievement therefore provide valuable information about the general ability levels of learners (Brown, 1995, p. 46). Observation involves watching students and recording their behavior related to language, and classroom behavior and recording the behaviors that take place (Brown, 1995, p. 48).

Interviews are open-ended type of instrumentation that takes place in the forms of individual interviews or group interviews. While individual interviews are time consuming, the information given in-group interviews is not confidential. The interviews can be structured with questions thought of beforehand and additional questions can be added to get more detailed and clearer responses (Brown, 1995, pp. 49-50).
According to Seliger and Shohamy (1989), the structured interview has many advantages, for the questions are not left unanswered as it may happen when completing a questionnaire. Another advantage is that the interviewer can explain, clarify and also direct the questions relieving any ambiguity or impreciseness, perhaps “any misunderstanding which may crop up in the interpretation of the questions. "Finally and perhaps most advantageously, the gatherer can follow up any avenue of interest which arises during the question and answer session but which has not been foreseen during the designing of the structured interview" (as cited in Mackay, R., 1978, pp. 199- 201). Another technique known as meetings has the following four types:

i. Delphi technique is the kind of meeting or a series of meetings in which the task is to reach an agreement.

ii. Advisory meeting is such a technique that can be used at the beginning of a needs analysis to inform the staff and institution about what a needs analysis has its purposes, techniques, and benefits.

iii. Interest group meeting is used to determine different views in a programme.

iv. Review meetings are conducted to involve participants into the process of sorting and analyzing the information gathered from other procedures in this way; it helps to promote a sense of involvement in the needs analysis.

Meetings can be structured in such a way that participants can be provided some tasks like reaching a consensus. The groups of people involved in a language program 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 considered more efficient for gathering data as compared to other instruments. According to their purpose, questionnaires can be classified into the five following categories:

i. Bio data surveys elicit facts about learners’ background,

ii. Opinion surveys are designed to reveal opinions and attitudes,

iii. Self-ratings ask participants to rate their own abilities, interests, and so forth,

iv. In judgmental ratings, participants are required to evaluate various aspects of the programme,
v. Q sort combines the other survey types, since it asks individuals to give their own opinions, attitudes, also to rank them in the order of importance (Brown, 1995, pp. 46-51).

Questionnaires are useful and time efficient way of collecting data that can be applied to large group of people. However, it is necessary that questions should be clear and not ambiguous to avoid the misunderstanding of students (Brown, 1995, pp. 46-51). Similarly, Braine (2001) revealed in his comparison of data collection lists provided by Jordan (1997) and Robinson (1991) that, “the prominence given to questionnaires in both lists is surprising” (p. 196). Dornyei (2003) remarked:

Because the essence of scientific research is trying to find answers to questions in a systematic manner, it is no wonder that questionnaire has become one of the most popular research instruments applied in the social sciences. Questionnaires are certainly the most often employed data collection devices…. In an age of computers and sophisticated word processing software it is possible to draw up something that looks respectable in few hours. (p. 30)

The case study is another kind of method as Schmidt (1981) mentioned that:

“The advantages of this method over the others are the possibility of one in-depth study over a period of time, the opportunity to appeal to the student's intuitions about his or her difficulties and needs in more detail” (p. 208).

Nevertheless, the case study, despite its advantages, is time-consuming, and its results cannot be generalized. Finally, it is possible to carry out the "participatory needs analysis" (Robinson, 1991, p. 14) not only by making the students answer the questionnaires, but also by asking them participate actively.
B. Sources of Information

Robinson (1991, p. 9) considered three main sources of information as necessary: the students, the language teaching institution including the administrators, and the student's employer.

According to Robinson (1991), two other sources that can be helpful such as the students' sponsors and past students (p. 11). Dudley-Evans (1998) listed eight sources: learner, people working and studying in the field, ex students, documents relevant to the field, clients, employers, colleagues, and ESP research in the field (p. 132). According to the recent approach, the views of the subject specialist are of equal importance in the process of NA as Flowerdew and Peacock (2001) indicated that:

“there is an important role to be played by the specialist informant, a subject matter expert who can interpret the conceptual content of the target situation on behalf of the needs analyst” (p. 179).

C. Categories of People

Brown (1995) has described the following four categories of people who should be involved in the NA process:

1. The target group refers to people about whom information would be gathered. They can be learners or teachers and administrators whose needs are being analyzed,

2. Audience refers to the people who directly make use of the outcomes of the assessment process. This group usually involves teachers, administrators and governmental institutions, curriculum developers who will eventually be required to act upon the analysis,

3. Needs analysts are those who are responsible for conducting the needs analysis in a reliable and valid way,

4. A resource group includes any group of people who may serve as source of information about the target group. The group may consist of parents, language instructors, content area instructors, and employers. However, special attention should be given to identifying these groups of people in order not to exclude important individuals or groups in the process (p. 37).
2.3.10. Mackay’s View Point

According to Mackay (1978), it is up to the language teacher who must be well informed about the situation to determine what should be the needs of the learner. Thus, Mackay (1978) has remarked that "In order to design and teach effective courses, the teacher and planner must investigate the uses to which the language will be put" (p. 21). The language teacher must gather the necessary information by conducting a double investigation. With that purpose in mind, he must design a careful questionnaire and a structured interview:

Hence, it is the responsibility of these language teachers involved in planning courses for given groups of learners for specific purposes, to determine accurately what these specific purposes are. Then the teacher is one step nearer being able to translate these needs into linguistic and pedagogic terms in order to produce and teach an effective course. There are basically two formal ways of gathering the necessary information: by a questionnaire to be completed by the learner or teacher, or by means of a structured interview. (p. 21)

“If a questionnaire is to be used, the teacher must determine what kind of information about what he requires and design questions to elicit this information” (p. 21).

He further asserted, "A pilot run with the first version of the questionnaire is a good idea. Even administrated on a few, say five, individuals, it will indicate what questions have been poorly or ambiguously phrased and if any important information is missing" (p. 22) however, "A structured interview is similar in format construction and purpose to a questionnaire" (p. 22).
2.3.11. Steps in Needs Analysis

McKillip (1987) has given the following list of steps for the NA:

- The first step is a preparation stage that covers identifying the users and defining the purpose. Users refer to the people who will act on the basis of the results. Brown (1995) has called users as audience who usually consists of teachers, program administrators or any governing bodies (p. 37).
- The second step is “the description of the great population and the existing service environment” (McKillip, 1987, p. 8).
- The next step is the needs assessment step. As soon as the needs are defined, they have to be evaluated. The results are interpreted and discussed. The importance and relevance of the problems and solutions are evaluated (McKillip, 1987, p. 9).
- The final step is the communication step where the results are communicated to the audience. This step is as important as the others, since the results need to be reported to decision makers in order to be used in curriculum design (McKillip, 1987, p. 9).

2.3.12. Problems in Needs Analysis

The learners should not be considered as a homogenous group because of different linguistic origins, cultures and teaching and learning environments. Even in a classroom inhabited by monolingual learners sharing the same linguistic culture there may exist a variety of student-perceived needs (Young, 2000, pp. 72-73). It must be realized that without any information about learners, their experiences, it is not possible to develop a curriculum that leads to success creating high levels of motivation in students. Students’ perception of their needs cannot be disregarded since learners can also have worthy ideas about their own learning (Hutchinson & Waters, 1986, pp. 56-57).

The subjective needs of the learners that are “wants, desires and expectations of the learners”, may not be acceptable for administrators due to different levels of perception in regard to the learner’s needs (Nunan, 1999, p. 40). Similarly, teachers and learners may have different perceptions related to learners’ needs therefore, the learners’ language needs must be determined along with the perceptions of learners, teachers and administration. Once the needs stated by these different groups are listed, the needs have
to be assessed and organized in order of their priority however, it may not be possible to meet all the needs (Richards, 1990, p. 20).

It may be difficult to get the real views of learners about curriculum or an institution “they may be unwilling to criticize authority, possibly thinking that it might prejudice their assessment or they might simply be uninterested feeling that any course revision will not help them but only future learners” (Hutchinson & Waters, 1986, p. 154).

Another difficulty stems from the fact that learners’ aims in learning a language may differ or they may not remain constant. It is possible to end up with a result that will reveal that within a group, individual aims are quite varied (Hutchinson & Waters, 1986, p. 154). In that case, teacher may identify the learners’ needs in terms of processes of learning rather than having only considered end goals and purposes (Widdowson, 1983, pp. 20-21).

A variety of instruments should be used in order to avoid disadvantages of a certain instrument according to the given situation thus to produce a stronger and more valid information gathering process (Brown, 1995, p. 52). Nunan (1988b) remarked that:

In considering needs and goals, we should keep in mind that teacher’s syllabus and the learner’s syllabus might differ. One of the purposes of subjective needs analysis is to involve learners and teachers in exchanging information so that the agendas of the teacher and the learner may be closely aligned. (p. 79)

There is a crucial importance of compromise between educational stakeholders, which include teachers, administrators and students. For this process, the term ‘triangulation’ has been used which involved, “comparing and cross-checking the results of various stakeholder responses” (Moore-Thomas & Erford, 2003, p. 721). Brown (1995) rationalized that a needs analyst could cope with this situation through “narrowing the scope of his research and limiting the types of needs to be explored” (p. 39).
2.3.13. Criticism on Needs Analysis

Criticism on needs analysis is presented as follows:

1. NA, or indeed any other form of pre-course planning and specification, is rather irrelevant because the planned curriculum will be transformed in its implementation. What really counts is the development of second-language skills in the process of engaging learners in interesting and meaningful classroom experiences (Nunan, 1988, p. 45).

2. The collection and analysis of a wide range of information can be very time consuming and expensive. Therefore, contemporary researchers have emphasized needs analysis as an ongoing process (Brindley, 2000). Thus, “Given its increasing complexity, practitioners have come to realize that needs analysis cannot be just a one-off exercise” (Flowerdew & Peacock, 2001, p. 179).

3. Dudley-Evans and St. John (1998) indicated that:

   The findings depend on who asks what questions and how the responses are interpreted. What we ask and we interpret are dependent on a particular view of the world, on attitudes and values. Berwick makes the point that ‘our perceptions of need develop from what we believe is educationally worthwhile, that needs are not simply “out there” waiting to be counted and measured. (p. 56)

   Despite the potential difficulties involved in collecting and interpreting information on learner needs, the idea of using needs analysis as a basis for determining course content and methodology has met with wide acceptance, both in general language teaching and LSP context. Needs based approaches have had a major influence on other areas of applied linguistics in language teaching that includes course designing and language test and evaluation strategies (Aldersen & Clapham, 1992).

2.3.14. Review of the Research Projects in ESP Needs Analysis

In this section, I will provide an overview of sampling of recent studies in NA conducted in different parts of the world. This overview consists of firstly, the present studies conducted within the field of EMP and then other studies in ESP finally, it will take a review of the ESP projects carried out in Pakistani settings.
2.3.14.1. EMP Research Around the World

Eggly, Musial, and Smulowitz (1999) conducted a needs analysis to investigate the relationship between English language proficiency and medical residency success in the United States. Twenty International internal medicine residents at Wayne State University in Michigan were first evaluated for English ability by means of the Test of English for International Communication. Then, a questionnaire was administered for these students. Although the participants scored high grades in the Test of English for International Communication, language skills were identified in the questionnaires as the primary weakness. The findings indicated that medical knowledge was not linked to English ability. The study concluded with the recommendation of course of English for Medical Purposes.

Bosher and Smalkoski (2002) conducted a needs analysis study to determine why many ESL students enrolled in a nursing program were not succeeding academically. Interviews, observations, and questionnaires were used to gather information about the objective needs of students. The findings indicated that communicating with clients and colleagues in the clinical setting was perceived as the greatest difficulty. Based on the needs analysis, a course of Speaking and Listening in a Health-Care Setting was developed in response to what was identified as students' area of greatest difficulty. A variety of methods and materials drawn primarily from sources for developing health-care communication skills were used to develop the curriculum.

In Alagozlu’s (1994) study, the main concern was to reveal the English language needs of fourth-year Medical students at the Faculty of Medicine of Cumhuriyet University, Trabzon, Turkey. Students’, teachers’ and administrators’ perceptions of students’ needs were investigated. Data were collected through questionnaires and interviews and the perceptions of these people were compared. The four major results of this study were as follows: First, reading and translation were the most required language skills for medical students because of the large proportion of medicine-related readings were available only in English. Second, the instructional materials were not suitable, which implied a revision of instructional materials in use. Third, a need for in-service training in teaching ESP was revealed. Finally, it was seen that the focus in language classes and the perceived needs of the students by medical students, language teachers and administrators did not match. Based on these results, recommendations were made as to what elements of the curriculum should be changed and what a new curriculum should
Rattanapinyowong, Vajanabukka, and Rungruangsri (1988) conducted a needs analysis study among medical students in Mahidol University in Bangkok. Data were collected from 351 questionnaires distributed to medical, nursing, and related field’s students. Interviews with teachers in different University departments were analyzed to identify the English language academic needs of these students. The findings indicated that fewer academic needs were expressed than expected. The participants emphasized the need for English courses designed for specific medical professions.

Boztas (1987) conducted a study where he carried out a needs assessment at Hacettepe Medical Faculty, Ankara, Turkey. His primary concern was to propose a course design based on the English needs of students. Based on his analysis of the information gathered from students and teachers, Boztas concluded and recommended that for freshman students, English courses should be based on students’ identified needs on four skills areas together with target situation needs as well as learning needs. Here, Boztas proposed a learning- centered course design as illustrated by Hutchinson and Waters (1987, p. 74).

Moreover, he added that for advanced level students a special reading course with emphasis on reading strategies should be planned. He also recommended that optional translation courses should be given to second, third and fourth year students. He further proposed an optional writing course with special focus on note-taking skills. Besides, he suggested that an in-service training course should be given in collaboration with the medical department. Another recommendation made by him was that English courses should be compulsory for the first three years and in later years; an optional two-hour translation course would be sufficient.

Ertass (1998) conducted her PhD with the title of “A modular ESP course design for the upper-intermediate learners of English at the faculty of medicine at Gazi University.” The aim of this study was to design two different specific English courses for the freshmen of phase I and phase II of the faculty of medicine at Gazi University. To realize this aim, the needs of the students at the faculty were specified by using various methods of data collection such as questionnaires and semi-structured interviews conducted to 40 students and 10 area specialists of the mentioned faculty. This study exemplified a skills-based course on the basis of assumed and identified needs of the
students. The syllabus design was suggested for the Faculty of Medicine focusing on the needs analysis, content of syllabuses, materials development, and teaching strategies. The result was that when the above mentioned points would be taken into account for better implementation, the model suggested in this study could help limited English proficient students solve the problems in following their medical courses and lead to successful completion of their faculty courses. However, it did not involve teacher training and steps of summative evaluation.

Another study was conducted by Zhuo, as a PhD dissertation at the University of Massachusetts in 1989, titled “English Curriculum for Medical Students in the People’s Republic of China.” The purpose of this study was to develop an English writing curriculum for medical students in China. This study discussed and analyzed the problems relating to the English curriculum in medical schools and designed a relevant English curriculum for medical students.

The curriculum developed in this study was for medical students who specifically needed to improve their English writing skills in medical science. Based on the students’ needs, goals and objectives were developed, and a syllabus was specified, teacher-training, materials and methods, as well as evaluation procedures were also defined. Although this program had been developed on a theoretical and practical basis, it had to be field tested for relevancy, sufficiency and effectiveness. This had been about to occur in a Chinese medical university when the author returned to China. The author concluded that from the description of English language education in medical schools and the problems of the English Curriculum for Science and Technology (ECST), it could be seen that the use of the ECST as a curriculum for medical students was inappropriate. Besides, medical students needed a curriculum designed for their specific needs, goals, and objectives. In addition, the development of learning materials and selection of teaching methods must be compatible with the design goals and objectives. Finally, teachers required to be well trained and their evaluation appropriately designed.

Naruenatwatana (2001) conducted another study. The purpose of this study was to investigate the needs of the medical students in the use of academic English at Rangsit University. The analysis of the needs was by three groups: 297 of the medical students in the 1999-2000 academic year ranging from first to sixth year of study, seven teachers of English who taught English to medical students at Rangsit University in the 1999-2000
academic year, and the subject teachers who taught major subjects at the school of Medicine, Rangsit University in the 1999-2000 academic year. The instrument used in this study was three sets of questionnaires: the first for medical students, the second for teachers of English, and the third for subject teachers. The content of the questionnaire given to each group of subjects was similar in detail except the first part that addressed the background information of the subjects.

The data obtained was calculated by using the program of the Statistical Package for Social Sciences (SPSS). The statistical devices used in this study were percentage and frequency count, five-point Likert Scale, the Cronbach Alpha Method, and t-test. The findings revealed the positive opinions of all three groups on the needs of using academic English and the specific English courses-tailored for medical students at Rangsit University. All four macro-English language skills (listening, speaking, reading, and writing) were greatly needed. Reading skills were considered as the most important. Results from the open-ended item questionnaire supported these findings. More English courses specially designed and geared to students’ academic needs were recommended as an urgent need for medical students at Rangsit University.

The aim of Askari Arani’s research (2004) with the title of “issue of learning EMP at university: an analysis of students’ perspectives” was to consider the issues of learning English at a university level, and explored the ways of improving the quality of learning. Moreover, the natural question that occurred was why school leavers did not possess adequate language skills, and an attempt was made to tackle this question. The research involved gathering data on learners’ views on their learning needs and expectations, on encountered difficulties in learning at university, on the ranking of preferences for language skills (i.e., the degree of importance of proficiency in different areas of language) and collecting and analyzing learners’ self-assessment data throughout the course. The techniques of gathering data included different types of questionnaires administered to 45 learners (i.e., students of medicine), and talking to students outside classroom. The results indicated that learner initiative should be encouraged. Besides, teachers should get learners to take responsibility for their own learning. Given space, time and clear directions, learners would be bound to succeed.

The other study of Askari Arani (2005) aimed at analyzing the learning EMP through ICT (Information and Communications Technology) with respect to attitudes and
difficulties. This was a quasi-experimental study conducted on 40 second-year students of medicine who had passed two EMP courses at the Medicine Faculty of Kashan Medical Sciences University in Iran. The respondents were asked to fill in a questionnaire on their Internet habits (based on Kung & Chuo, 2002). The students were also requested to either comment on or volunteer their own opinions or suggestions, but there were none. The author concluded that the major advantage of using computers in the EMP classes was that there was a wide variety of interactive activities that encouraged independent learning. Generally, the respondents’ attitudes towards learning English on the web have been positive, but learners were reluctant to learn EMP online in their spare time. Besides, the important factors for successful work online were the learners’ computer skills, their experience in answering information on websites, and good reading comprehension skills in English. The main difficulty that the respondents encountered when using the Internet for preparing creative assignments was the linguistic complexity of the materials and students’ inability to assess materials impartially.

Askari Arani (2005) also in another research named: “learning strategies of English medical terminologies in the students of medicine” tried to explore the learning of medical terminology by Iranian students of medicine. It focused on the frequency of use of strategy by them in learning medical terminology and to identify the strategies related to success or failure in learning the target. This study attempted to clarify the strategies used most and least frequently by the learners; a comparison was also made between high level and low-level students in the least and most frequently used medical terminology learning strategies.

Participants in this study were 89 students of medicine from two second-year classes at Kashan University of Medical Sciences, Iran. Medical terminology was a required complementary section in EMP course so all of the students were supposed to take and pass Medical Terminology course. The class met two hours a week. The test for evaluating the subjects’ proficiency level in this study was the Medical Terminology mid-term exam designed and administered by English teacher in the faculty of medicine which was a curriculum-specific achievement test containing 50 questions in total. The students were required to answer questions on their strategy use on a five-point Likert Scale. The results of this study indicated that students in general preferred to use written repetition, verbal repetition, and bilingual dictionary strategies. In this study, it was found that there was significantly greater overall use of learning strategies among more successful
learners and significant differences by proficiency level in students’ use of four strategy categories: determination, memory, cognitive and metacognitive. The results indicated that there existed major differences in patterns of learning strategy use among students for two proficiency levels. High-level learners were better at gaining knowledge of a new word; they remembered more effectively, controlled and evaluated their own vocabulary learning better than low-level learners did. However, both levels were poor at utilizing social strategies to discover new meanings in terminology learning.

Troutt (1987) investigated how method of instruction for college students, keyword versus traditional was related to acquisition and retention of medical terminology in a classroom setting and in individualized learning. Five intact classes containing a total of 120 college students were taught three lessons of medical terminology by one or more of three methods: traditional, keyword in a classroom and key word in individualized learning. The results indicated that the class taught to use the keyword strategy retained significantly more words than the class taught by a traditional method for initial acquisition of medical terminology. This study provided empirical evidence to present the effectiveness of keyword method for initial acquisition of medical terminology.

Bell, Hudson, and Heinan (2004) conducted a study called “effect of teaching/learning methodology on effectiveness of a web-based medical terminology course.” The purpose of this study was to investigate how a particular method of instruction could impact the effectiveness of an on-line or web based course in delivering subject content. Two different versions of an existing web-based medical terminology course were compared in order to determine which was more effective in teaching content to first semester students in a physician assistant studies program at a 4-year public university. This research indicated that deep learning strategies such as reflection and analysis might not be necessary in order to perform well on such short answer exams. The study also indicated that successful learners were not only deep learners but also “adaptable or strategic learners” who knew how to adjust their learning style in order to suit the circumstances of their learning and testing environment.

Kashani, Soheili, and Hatmi (2003) conducted a study named: “Teaching English to students of medicine: A student-centered approach”. The purpose of this study was to compare the achievement levels of the majority of the applicants to the medical school at
Tehran University of Medical Sciences (TUMS) in Iran in the academic year 2002-2003 with that of a smaller group of the same population. The former group received instruction based on the established syllabus, but for the latter group a new student-centered approach to teaching English was designed. The authors concluded that careful monitoring and a highly developed evaluation system seemed to be an effective mechanism to motivate students, teachers, and/or all those involved in a teaching/learning program to do their best and that the same approach might not be equally useful to different learning groups. It also appeared that students at different learning levels might benefit more from different level-specific evaluation systems. This could be the subject of a further study, of course. Finally, administrators would serve the university more effectively if they applied research findings for the betterment of the educational plan of action in all departments.

Chia, Johnson, Chia, and Olive (1998) carried out a research to describe the perceptions that medical college students and faculty had of the English language needs of the students in Taiwan. There were 349 medical students and 20 faculty members at Chung Shan Medical College in Taichung, Taiwan. Survey information included respondents’ opinions on (1) the importance of English language use in students studies and their future careers; (2) basic English skills needed in freshman English course; and (3) suggestions for development of an English language curriculum. The studies concluded that English was important for academic and professional purposes. For students, listening was the most important skill that needed practice. Students and teachers wanted to have an English course for the period of one year.

Elkilic (1994) carried out a needs assessment study in order to determine the English language needs of the students in the Faculty of Veterinary Medicine at Selçuk University. Students, subject specialists and English instructors were given questionnaires. The results revealed that students considered reading skill as the most important. Listening came up to be the second important skill for the students of Veterinary Medicine. The students, subject specialists and English language instructors stated that reading was important in order to be able to understand scholarly journals, magazines and reports as well as to translate materials from English into Turkish. Based on these results, recommendations were put forward by the researcher aiming at improving the existing English language curriculum at Selçuk University.
2.3.14.2. Other Areas of ESP

Previously I have presented research studies carried out within the area of medical English. The following study would provide an overview of needs analysis research in other specialties.

Li So-mui and Mead (2000) conducted a research into the workplace English needs of textile and clothing merchandisers who communicated in the international marketplace. Through questionnaire surveys, telephone interviews, analysis of authentic correspondence visits to the workplace; data were collected related to communication demands in professional settings on the basis of which teaching and learning materials were developed according to the specific workplaces needs.

In a study conducted within the EFL field, Kittidhaworn (2002) investigated the English language needs of 182 second-year undergraduate engineering students in a public university in Thailand. A two-part questionnaire was constructed. The first part of the questionnaire asked for demographic data: gender, specialty, years of studying English in the school, and English proficiency in Listening, Speaking, Reading and Writing skills. The second part dealt with 45 items of English-language needs in four major areas (i.e., listening, speaking, reading and writing). The findings of the study indicated that the majority of Thai engineering students had equal perceived English language needs in all four major areas, with all rated as moderately important or very important to learn in their program in engineering. The findings also revealed that perceived English language needs did not vary widely by demographic variables.

Seferoglu (2001) conducted a needs analysis study focusing on Turkish government-sponsored students who were studying towards masters or doctoral degrees in the US and students who were being prepared in a language program in Ankara, Turkey in order to go to the US to continue their graduate studies. The purpose of this study was to gather information about the language needs as perceived by these students and to explore the extent to which classroom instruction in the language program in Turkey responded to these needs. Data were collected by means of a questionnaires distributed to 309 graduate Turkish students studying in various American universities and 21 students attending the language program in Turkey. The questionnaire asked students in both groups to rank the importance of the English language in academic life, TOEFL preparation, and daily activities. The majority of the respondents at American
universities believed that their academic needs in learning English were far more important than their everyday needs. The majority of respondents from the language program in Turkey also agreed. However, when students in the English language program were interviewed, they revealed a need more pressing than either academic or everyday English. Their immediate need was to score 500 or more on the TOEFL exam.

Jafre-Bin-Zainol-Abidin (1992) investigated English language needs for business purposes in Malaysia for science graduates. A questionnaire was distributed to the science students at the University of Malaysia and another questionnaire was distributed to personnel managers and employees in different companies in Malaysia. The participants ranked the use of English and the importance of each language skill. The findings indicated that students ranked reading as the most important skill, while employees ranked each skill differently based on the nature of their jobs. However, all skills were needed to perform basic tasks.

Lombardo (1988) surveyed 200 students in the School of Economics to investigate students’ perceived needs and attitudes about learning English as a second language. The results showed that students were motivated to learn English to have a better chance to get a job. Technical terminology was the major problem in reading. Understanding oral reports and participating in meeting were the most activities needed to succeed in their field. In regard to the importance of the four language skills, listening skills were the most important followed by speaking, reading, and writing.

Almulhim (2001) investigated English language needs of Saudi employees in 101 companies representing different business sectors in the eastern province of Saudi Arabia. The investigation measured the level of English proficiency required in the four skills. A questionnaire was distributed to different companies and filled out by 308 employees and managers. The results revealed that the English language knowledge was required for employment in most companies and that the level of proficiency varied among different companies. In regard to language skills, managers and employees rated listening as the most important skill followed by speaking, reading, and writing, respectively. The study concluded that though the English language was needed in the private sector, an intermediate level of proficiency was generally sufficient to conduct the job.

Al-Gorashi (1988) investigated the English language needs for military cadets in Saudi Arabia as perceived by junior officers. Data were collected from 212 questionnaires
distributed to officers representing different branches in the military to investigate the role of the English language in different activities required by their jobs and the kind of English language preparation that they undertake. The overall assessment considered reading and listening as the most important required skills. The study concluded that the language preparation does not meet the English language knowledge that the officers’ jobs required.

2.3.14.3. Review of ESP Projects in Pakistan

There are different areas that have been researched in the field of ESP in Pakistan. However, most of the research has focused mainly on the fields of business, commerce and industry.

Qadir (1988) conducted a research on the communicative needs of the students of Masters in Business Administration (MBA). She proposed a course of English on the basis of the findings of the research. She believed that communications skills could be developed on the basis of the motivational grounds of the learners. Therefore, the role of teacher was also of great significance as, “A supportive teacher can help a learner to contribute to his own personality to the learning process therefore, it helps to internalize the learning” (1988, p. 76). Iqbal (1997) carried out his study in the field of cost and management accountancy and provided designing features of the foundation course of English for the students. He concluded his study on the basis of the evaluation of students’ performance in the class, error analysis techniques and by conducting personal interviews with them. He pointed out the need of communicative competence required for them to deal efficiently with the linguistic and conceptual demands of the course of studies.

Ahmad (1997) explored the linguistic competence of the students of MBA by evaluating their written scripts. Imtiaz (2001) investigated English for medical purposes (EMP) however; Imtiaz evaluated the course of English for diploma in nursing. Massood (2003) investigated the needs of medical students focusing on case history. Bashir (2004) carried out a research to use learners’ corpus to teach MBA students for writing term papers. Imtiaz (2002) researched the field of business communication focusing at report writing for M.Com banking students in Pakistan therefore written communication was investigated for the bankers in the State Bank of Pakistan. Hussain (2002) evaluated the

Ahmad (2005) carried out another considerable work in the field of ESP. He investigated the communicative needs of the learners of law in their academic and occupational settings at countrywide scale. He recommended a needs-oriented course of English for legal purposes (ELP) for its implementation on the basis of the analysis and findings. The study provided a clear picture of the learners’ level of inadequacy in the skills and sub-skills of the English language.

2.3.15. Conclusion

In this chapter, I have reviewed literature in the area of ESP. After having preliminary discussion on ESP by taking under consideration its history, definitions, classification and development and thus literature related to two major areas of ESP (i.e., language description and needs analysis) have been reviewed in detail. However, the description of EMP has been given a centered place therefore it establishes a relationship with needs analysis theory to substantiate grounds for this research. There has been a considerable development in this area since the birth of ESP. By reviewing the literature, it has been discovered that the field of ESP incorporates a number of needs analyses studies conducted in the context of ESP language programs in several different areas around the world. Needs analysis has been conducted in ESL settings and EFL settings representing academic and professional ESP programs. The findings of research in the field of EMP have been valuable for pedagogical considerations, as course developers can take insights from these findings. Numerous fields have been investigated in Pakistan in the ESP context however, present study is a beginning point that has looked specifically at the English language needs of the medical learners in their academic and/or occupational settings with a purpose to recommend a course of EMP in Pakistan.
CHAPTER 3

RESEARCH METHODOLOGY

This chapter offers a detailed description of research methodology followed in this study. It begins with introduction focusing on the research questions and the purpose of research for which different types of research are discussed to choose an appropriate method for present study. In the subsequent discussion, the chapter reports a detailed account of issues of sampling, description of the process of developing research questionnaires, piloting and validation of research questionnaires. This is followed by a discussion related to the administration of instruments and data collection process at great length. The chapter ends with information about data entry and data analysis.

3.1. Introduction

A theoretical framework is conceptualized in order to find answers to research questions as it guides the researcher also determines what things are targeted to measure, and what statistical relationships need to be explored (“Theoretical Framework”, 1996). This research was based on the purpose of investigating academic and occupational English language needs of the students of MBBS in order to identify medical students’ needs according to the perceptions of different groups of the medical discourse community. Therefore, the objective in the broader frame was to recommend a course of English in response to their perceived linguistic inadequacy related to all four skills (i.e., listening, speaking, reading and writing). Hence, the following main and subsidiary research questions were addressed in present study. The main research question was:

1. How is it important to recommend a course of English in the Pakistani medical colleges?
The following subsidiary research questions were designed in order to answer main research question:

1. What is the frequency of usage of English in the academic and occupational settings of medical learners in the medical colleges of Punjab?
2. What is the importance of English for the medical learners in their academic and occupational settings and for performing what kind of activities?
3. What is the existing level of proficiency of medical learners in listening, speaking, reading, and writing skills of English?
4. What are the perceptions of different groups of medical discourse community regarding learning English at medical college?

3.2. Methodology and Methods of Research

In this study, I have opted qualitative and quantitative methods for carrying out research keeping various considerations in view. There has been widespread debate in recent years within many of the social sciences regarding the relative merits of qualitative and quantitative strategies for research that are highlighted in the following.

3.2.1. Qualitative Method

Husen (1994) has indicated that the qualitative paradigm is rooted in humanities, which emphases on holistic information and interpretive approaches. Strauss and Corbin (1990) have asserted that qualitative methods are of vibrant help to gain better insights to the areas where a very little information is available. According to Mason (1996), qualitative research is

based on methods of data generation which are flexible and sensitive to the social context in which data are produced (rather than rigidly standardized or structured, or removed from `real life' or `natural' social context, as in some forms of experimental method) (p. 4)

Patton (1990) suggested that:

Qualitative method consists of three kinds of data collection: (1) in-depth, open ended interviews; (2) direct observation; and (3) written documents. The data from interviews consists of direct quotations, capturing people’s
personal perspective and experiences. The data collected from observations consist of detailed descriptions of people’s activities, action, and full range of interpersonal interactive and organizational process that are a part of observable human behavior. Document analysis in qualitative inquiry yields excerpts, quotations, or entire passages from organizational clinic or program records; official publications and reports; and open ended written response to questionnaires and surveys. (p. 12)

Delamont (1992:viii) reviewed qualitative research as a more demanding and exhaustive task.

3.2.2. Quantitative Method

The quantitative paradigm is derived from positivism that holds that the world is made up of observable, measurable, and quantifiable facts (Glense & Peshkin, 1992). Kahn (2004) has argued that quantitative research is designed to test hypothesis that are theoretically derived; whether hypothesis is supported or refuted the researcher reports the results objectively. Thus, quantitative research involves several data gathering and analytic methods such as survey techniques, experiments, structured observation, content analysis and parametric and non-parametric statistical analysis. It highlights causality, measurement and generalizability (Bryman, 1992).

3.2.3. Complimentary Approaches

Mason (1996) has rationalized that qualitative research should not be viewed as completely distinctive from, or uncomplimentary to, quantitative approaches. Quantitative research can collect more qualitative data through open-ended questions. Punch (1998, p. 4) deemed qualitative research as form of empirical research where the data are not in the form of numbers. Bryman (1988) argued for a “best of both worlds” approach and suggested that qualitative and quantitative approaches should be combined. According to Best and Kahn (1989), “Both types of research are valid and useful. They are not mutually exclusive. It is possible for a single investigation to use both methods” (pp. 89-90).
Denzin (1989) has pointed out that the combination or integration of qualitative and quantitative research methods in the same study can be more acceptable approach than using a single one. For Larsen-Freeman and Long (1991), there is no distinct boundary between qualitative and quantitative. Duff (2002) has indicated that qualitative approach includes a variety of approaches, designs, and tools such as surveys, multifactorial studies, and experimental and quasi-experimental studies including narrative research. Blaxter, Hughes and Tight (1996) drew a comparison between quantitative and qualitative approaches as:

Quantitative research is, as the term suggests, concerned with the collection and analysis of data in numeric form. It tends to emphasize relatively large-scale and representative sets of data, and is often, falsely in our view, presented or perceived as being about the gathering of ‘facts’. Qualitative research, on the other hand, is concerned with collecting and analysing information in as many forms, chiefly non-numeric, as possible. It tends to focus on exploring, in as much detail as possible, smaller numbers of instances or examples which are seen as being interesting or illuminating, and aims to achieve ‘depth’ rather than ‘breadth’. (p. 61)

Hughes (1997), nevertheless, has warned that such technicist solutions underestimate the politics of legitimacy that are associated with choice of methods. In particular, quantitative approaches have been seen as more scientific and ‘objective’. It is often assumed that quantitative approaches draw on positivist ontologies whereas qualitative approaches are more associated with interpretive and critical paradigms. Therefore, interviews may be structured and analyzed in a quantitative manner, as when numeric data is collected or when non-numeric answers are categorized and coded in numeric form. Similarly, surveys may allow for open-ended responses and lead to the in-depth study of individual cases.
3.3. Sampling

In this section, first I will explain methods of sampling. Second, the selection of research sites and then sample selection with the description of sample population would be presented.

3.3.1. Methods of Sampling

I relied on the purpose of the study before selecting a method to draw sample from different groups of population. In this regard, firstly, I had to rely on my knowledge and experience erstwhile regarding the information about medium of instruction that was English in all the medical colleges of Pakistan. Secondly, bigger medical colleges were situated in the bigger cities of province where majority of the students would come to join across different cities on the basis of merit system. Therefore, I chose to follow a method of purposive sampling to carry out this study as Gay and Airasian (2003) indicated:

> In the purposive sampling, also referred to as judgment sampling, the researcher selects a sample based on his experience and knowledge of the group to be sampled. For example, if a researcher planned to study exceptional high school, he would choose schools to study based on his knowledge of exceptional schools. (p. 115)

Thus, sample drawn having followed purposive sampling method provided a large number of sample population assembled in the bigger city of province in order to collect information about the specific needs of the students of medicine in Pakistan.

I decided to collect data regarding English language needs as perceived by four different groups of sample population: the students of medicine, teachers of medicine, medical trainees and medical administrators. The information collected from different members of medical discourse community allowed learning about perceived opinions with respect to multiple perspectives. The data were gathered from the above mentioned research sites for each group of sample population. Since, I had divided research population into particular sections, a technique known as stratified random sampling (i.e., an example of probability sampling) was also employed in the study as Oliver (2004) mentioned:
In some forms of research you will want to ensure that respondents who meet certain criteria are included in your sample. For example, in a study of educational systems and hierarchies, you may wish to ensure that your final sample includes people from each of a number of work role categories. You may divide your population into certain sections, and then take a random sample from each. This is a technique known as stratified random sampling. (p. 128)

3.3.2. Selection of Research Sites

I selected sample population from two medical colleges (i.e., one public sector medical college and one private sector medical college) in the province of Punjab. According to the available literature on carrying out research by means of using questionnaires as research instruments in second language, has suggested that there is no explicit rule followed to determine the optimal sample size. Dornyei (2003) has indicated three following major strategies in terms of determining an appropriate sample size:

- Having 1% to 10% of the target population is adequate to represent an accurate sample of the population.
- The return rate with voluntary questionnaires is between 20% to 50%.
- L2 studies based on questionnaires need a minimum of 100 respondents to reach statistical significance.

Initially, I intended to obtain first hand knowledge related to total number of medical students from each of the medical colleges in order to have a general idea about how many students were joining the medical college every year. Therefore, I sought information in regard to annual admissions in MBBS as specified by PM&DC.

It was clear that the total number of annual admissions in an MBBS course was up to 350 students in a public sector medical institution and 100 students in a private sector medical college. The information indicated that the number of respondents would be adequate to carry out a reliable study as the total number of students for two medical colleges would provide nearly 1750 medical students from a public sector and 500 students from private sector medical college enrolled in all classes (see Chapter 1,
Eligibility Criteria for Admission, p. 16).

For the selection of research sites from where sample population was to be drawn, I relied on my previous knowledge and experience. I had taken the following key issues into consideration in this regard:

- Firstly, there were two types of medical colleges (i.e., public sector medical colleges and private sector medical colleges) in the country. Majority of public sector medical colleges were old established and comprising a large number of students. Whereas the private sector medical colleges had lower number of students as compared to the number of students in the public sector medical colleges.

- Secondly, there was only one medium of instruction (i.e., English followed in all the medical colleges throughout Pakistan). The big medical colleges of big cities had an edge to have student intake across the whole province because of higher merit and availability of greater number of seats. Usually, the students with a background of English medium schools succeeded in majority to secure admission in such big medical colleges of the province as they would be able to come up to higher merit of larger medical college as compared to smaller medical college situated in a smaller city. A trend was seen that apart from Pakistani students, a significant number of foreign students also secured admissions in the big medical colleges of the big cities.

- Thirdly, I was aware that the largest and well-known old established medical colleges were only situated in the bigger cities of all the provinces where the merit for admission was comparatively higher than the medical colleges in the smaller cities. Thus, in larger medical colleges, there was better possibility of large-scale availability of regional and cultural multiplicity of different groups of sample population with variety of linguistic experiences.

- Fourthly, these big public sector medical colleges situated in the bigger cities had a greater number of seats for annual admissions. Therefore, students would switch from smaller cities to the bigger cities on the basis of merit, once admission was secured.
• Fifthly, the province of Punjab was the largest of all four provinces comprising 55.06% of total population ("Punjab, Pakistan", n. d.). Hence, the number of medical colleges in the province of Punjab was greater as compared to the other provinces in Pakistan. Therefore, sample drawn from related population groups would provide data about specific language needs of medical students studying in both public and private sector medical colleges of Punjab. This would eventually represent linguistic needs of the learners of medicine in Pakistan.

• One goal in the sampling process was to represent private medical colleges of the province because of the abundance of private medical colleges in the country especially in the province of Punjab where 22 out of a total number of 35 medical colleges were being run under the private sector (e.g., Table 1.2 Chapter 1, p. 15).

• Another reason to select big public sector medical colleges was that they had more faculty, more students, and more affiliated teaching hospitals than the smaller medical colleges of the smaller cities.

• The final reason for selecting larger city and larger medical college was my logistic and financial constraints as researcher. It would have been time consuming and very costly to travel long distances for the purpose of data collection. Thus, it was easier to obtain data from a larger city because of the availability of potential participants within a centralized area.

Owing to reasons above mentioned, I finally decided to carry out this research in one big city Rawalpindi. For this purpose, two medical colleges (i.e., Rawalpindi Medical College from the public sector and Islamic International Medical College from the private sector and thus their associated teaching hospitals) were selected. An added advantage of conducting my research in Rawalpindi was that my university was situated in Islamabad that was the federal capital of country and was adjacent to Rawalpindi. It was easier to fulfill official requirements on time regarding process of securing permission from the above mentioned research sites due to my personal presence. The most significantly, my supervisor was also stationed in Rawalpindi therefore, I could have easily approached him for elaborated discussions during the course of study.
3.3.2.1. Medical Colleges in Rawalpindi

There were a total number of four medical colleges in Rawalpindi. Two medical colleges were from the public sector whereas the remaining two were from private sector. Table 3.1 provides details of the total number of medical colleges in the city of Rawalpindi (“Recognized Medical Colleges in Pakistan”, 2006).

Table 3.1

<table>
<thead>
<tr>
<th>Total Number of Medical Colleges in Rawalpindi</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Sector Medical Colleges</strong></td>
</tr>
<tr>
<td>Rawalpindi Medical College (RMC), Rawalpindi</td>
</tr>
<tr>
<td>Army Medical College (AMC), Rawalpindi</td>
</tr>
<tr>
<td><strong>Private Sector Medical Colleges</strong></td>
</tr>
<tr>
<td>Islamic International Medical College (IIMC), Rawalpindi</td>
</tr>
<tr>
<td>Foundation University Medical College (FUMC), Rawalpindi</td>
</tr>
<tr>
<td><strong>Total Public Sector Medical colleges (N = 2)</strong></td>
</tr>
<tr>
<td><strong>Total Private Sector Medical Colleges (N=2)</strong></td>
</tr>
</tbody>
</table>

Total Medical Colleges in Rawalpindi (N = 4)

*Note.* N= Total Number

3.3.2.2. Background of RMC and IIMC

In this section, I will give a brief overview of my research sites (i.e., RMC and IIMC). RMC is the only public sector medical institution in the Rawalpindi city. It is more than 35 years old medical college established in public sector. It is affiliated with University of Health Sciences (UHS), Lahore and fully recognized by PM&DC and thus accredited by the College of Physicians and Surgeons Pakistan (CP&SP) for postgraduate trainings in different specialties (“The College”, n. d.).

There are two main campuses of RMC. One is known as RMC Tipu Road (Old Campus) and the other is called RMC New Teaching Block (NTB) Holy Family Hospital (HFH). In the Tipu Road (Old Campus), pre-clinical sessions comprising of 1st year and
2nd year of MBBS classes are conducted. Whereas in NTB- HFH, clinical sessions consisted of 3rd year, 4th year and 5th year of MBBS classes are held. The NTB is comparatively a bigger campus. There are three following well-equipped teaching hospitals associated with RMC:

- Holy Family Hospital, Satellite Town, Rawalpindi
- Benazir Bhutto Hospital, Rawalpindi
- District Head Quarter, Hospital (“RMC& Allied Hospitals”, n. d.).

The other research site for this study was IIMC. It is a private sector medical institution established nearly 16 years ago in Rawalpindi. It is the first private sector medical college, recognized by PM&DC in the Federal Area. Similarly, it also offers five years of basic and clinical trainings leading to the award of degree in MBBS. The college is affiliated with Riphah International University, Islamabad and thus recognized by various international institutions. It is located in Rawalpindi cantonment area. It is also affiliated with CP&SP for specialist trainings. There are three following teaching hospitals associated with IIMC:

- Pakistan Railways General Hospital, Rawalpindi
- Islamic International Medical Complex, Islamabad
- Heart International Hospital, Rawalpindi (“Riphah International University”, 2012).

### 3.3.3. Description of Sample Population

In this section, I will explain each group of sample population individually. Moreover, reasons for selecting each group of medical discourse community as study sample would be provided. I included four groups of participants (i.e., students of medicine, teachers of medicine, medical trainees and medical administrators) in this study. Initially, it was assumed that all groups of participants might have different yet valuable opinions regarding the medical students’ English language needs. Therefore, any contradictory opinions of the groups in this regard might exercise an impact on the teaching and learning process of English language in terms of recommendation of a course of English for medical students.
3.3.3.1. Students of Medicine

The participants of this category were medical students from RMC and IIMC. Students studying in medical colleges, were the most important sources of information in regard to their English language needs. They had personally experienced the learning process therefore, they could be assumed to have explicit awareness about their academic and occupational English language needs. They were simultaneously involved into classroom and hospital situation/s. The students were taken from 1st professional, 2nd professional, 3rd professional and the 4th professional of MBBS. Since a strict merit system was followed to secure admission in a medical college hence, there was a clear chance of having students belonging to varied regions and cultures with the multiplicity of linguistic barriers assembled in one place. The 1st professional comprised of 1st year and 2nd year of MBBS classes, whereas 2nd professional, 3rd professional and 4th professional were consisted of 3rd year, 4th year and 5th year of MBBS classes, respectively. Generally, 1st professional (i.e., 1st year and 2nd year of MBBS classes) is known as pre-clinical studies. Whereas 2nd, 3rd and 4th professionals (i.e., 3rd year, 4th year, and 5th year of MBBS) are known as clinical studies. Therefore, I divided students under two plausible categories (i.e., students of pre-clinical and clinical sessions).

I included students from 2nd year, 3rd year, 4th year and 5th year of MBBS classes as part of this research. The reason for not drawing sample from 1st year of MBBS classes was that they might not be fully aware of their language inadequacies because of the little time they had spent in a medical college. Therefore, it was more appropriate to conduct survey to get information from the students of the advanced classes of MBBS who had spent sufficient time in the medical college.

Thus, there was an anticipation of collecting better-informed opinions from the students of medicine in terms of their English language proficiency. The rationale behind including sample from all four professionals was to explore English language learning needs and expectations of the students of all levels with respect to their present situations.
3.3.3.2. Teachers of Medicine

The participants of this group comprised of the teachers of medicine. They belonged to the selected research sites. Their perceptions were equally important in that they might be better aware of students’ target English language needs due to several potential reasons. Teachers were assumed to have direct and regular interaction with the medical students in classroom and hospital environments. Another underlying assumption for selecting them as participants of this study was that they might have experienced similar English language problems during their academic and occupational lives.

The present sample included teachers of the medical colleges and their affiliated teaching hospitals situated in Rawalpindi. Teachers of both colleges were full time faculty members. Some of the teachers were simultaneously performing academic and administrative responsibilities in a medical college. Therefore, they were regarded as an important authority in the teaching and administrative domains of medical colleges. They had an essential role in decision-making process in regard to the establishment of curriculum for medical students.

Teachers, who teach 1st year and 2nd year of MBBS classes usually, do not practice in hospitals. However, the teachers of 3rd year, 4th year and 5th year of MBBS classes practice in associated teaching hospitals. The teachers who were not teaching at the time of data collection of this research but had taught in a medical college for a significant time period were also the subjects of this group of population. The teachers included lecturers/ demonstrators, assistant professors, associate professors and professors.

The professors who were performing administrative duties along with teaching included head of departments, deans and principals of a medical college. Similarly, the senior doctors/professors were part of this study who supervised medical trainees (i.e., house officers and postgraduate trainees). They were assumed to have knowledge about linguistic problems of the recent medical graduates. Hence, this category of participants was selected as population of research study because teachers had first-hand knowledge of the linguistic proficiency of their students.
3.3.3.3. Medical Trainees

The participants of this category were recent medical graduates. They were divided into two groups (i.e., house officers and postgraduate trainees). The recent medical graduates who were holding house jobs after finishing five years of MBBS study in a medical college were known as house officers (Hos). They had entered in the internship/s without which it was impossible to get full registration with PM&DC. The other category generally known as postgraduate residents (PGRs), comprised of postgraduate trainees. PGR trainees were seeking their specializations in various medical disciplines after their MBBS degrees. They usually joined their related fields of specialization after passing FCPS-I (Fellow of College of Physicians and Surgeons Pakistan- Part I) examination.

There were two important reasons involved for drawing sample from recent medical graduates. Firstly, house officers entered their professional field of practice right after completing formal medical education for five years in a medical college. Therefore, they were expected to have gone through all the experiences pretty recently. Practical exposure to real life occupational situations had also provided them the opportunities to think about deficiencies related to their past academic sessions. Secondly, PGR trainees were pursuing their higher studies. It was mandatory for them to keep themselves updated with latest academic and occupational concepts with the help of advanced medical literature and resources.

The new entrants in the field of practicing medicine were working under close supervision of senior doctors in a hospital. Consequently, the opinions of these two groups of medical trainees were equally important for present study in order to identify English language needs of medical learners in their academic and occupational tasks.

3.3.3.4. Medical Administrators

The participants of this category were medical administrators. I had selected only those medical administrators whose basic qualification was an MBBS degree. They were practicing doctors in the associated teaching hospitals while dealing with various administrative issues of the hospital. They had in/direct contact with the students of medicine, teachers of medicine and medical trainees. I decided to seek information to carry out this research from the Medical Superintendents (MS), Deputy Medical
Superintendents (DMS), Assistant Medical Superintendents (AMS), and the Administration Registrars (ARs). However, I provided opportunity to other medical administrators as well to participate in this research who were essential part of hospital administration and had considerable interaction with the groups of sample population of this study. They were also holding MBBS degrees as their basic qualifications. For the above-mentioned reasons, the medical administrators were expected to have knowledge of the linguistic problems of medical learners in their medical fields.

3.4. Construction of Instruments

In this section, I will discuss the construction of instruments used in present research. Therefore, I will describe objective behind the use of questionnaires as research tool and thus will focus on the number of questionnaires distributed among different population groups. Similarly, I will explain the rationale for selecting questionnaires as instruments giving an account of the types of questionnaires employed. Moreover, I will provide details regarding specific contents of questionnaires as designed. In addition, I will give details regarding construction of questionnaires 1, 2, 3 and 4, respectively. Finally, issues related to validity are discussed and piloting would be taken into account.

3.4.1. Objective

The purpose of employing questionnaires as instruments to carry out this study was to answer the research questions and gather data for it. The objective was to recommend a course of EMP for the learners of medicine in response to their perceived opinions regarding linguistic inadequacy in English skills (i.e., listening, speaking, reading and writing). Therefore, I opted questionnaires as instruments for this research.

3.4.2. Number of Questionnaires

The sample population in this research consisted of four categories of members of the medical discourse community (i.e., students of medicine, teachers of medicine, medical trainees and medical administrators). The perceptions of these members of medical discourse community were pivotal to present a clear picture of the linguistic proficiency of medical learners in their academic and occupational settings. For this purpose, I designed a separate questionnaire for each of these communities. Hence, four questionnaires were designed in all, which helped in gathering information from each of
the members of medical discourse community as discussed above.

3.4.3. Reasons for Selecting Questionnaires as Instruments

I opted for questionnaires as the most appropriate tool of research in this study having taken insights from previous works (Jordan, 1997; Alharby, 2005). I selected them as source of data collection for the following reasons:

1. There were a fairly large number of participants in this study. The information was to be gathered from four different members of the medical discourse community (i.e., Students of medicine, teachers of medicine, medical trainees and medical administrators). Therefore, any other instrument like case study, interview or observation could have been much more time consuming and exhaustive.

2. Questionnaires were considered the most effective tool for the type of information to be gathered for this study.

3. Questionnaires required minimal time from participants that could provide a flexible and convenient way to participate in the study.

4. It was easier to assure participants of research regarding the issue of their anonymity to a certain extent therefore they would respond honestly.

5. Questionnaires were helpful in getting late responses either by mail or in person from the participants who had no time due to their busy schedules at the time of data distribution.

6. There was an advantage of incorporating the qualitative portion of research within questionnaires that were primarily meant to be used for quantitative research. Similarly, the descriptive analyses of questionnaires were to promise objectivity to research.
3.4.4. Development of Questionnaires

According to Richards (2001), interviews can be used before creating a questionnaire to get an idea of what topics and issues can be focused on. Therefore, at the preliminary stage of constructing questionnaire for this study, informal interviews with students of medicine, teachers of medicine, medical trainees and medical administrators were conducted on different occasions.

The first step during the process of construction of questionnaires was to compile a list of contents explaining the type of information to be gathered. My informal meetings with different members of the medical discourse community provided me with a detailed idea about academic and occupational activities used in the medical education. Thus I succeeded to attain main body of information in the initial stage of this research during informal discussions and my visits to the medical colleges. This stage helped me to understand the importance of question wording that could otherwise have affected the data obtained from participants.

Hence, I created a list of related themes and topics (see Appendix A for the List of Themes for Questionnaires) that played significant role in medical communication for academic and occupational purposes. In order to jot down this list, I relied on the relevant literature available on medical English especially the already done research on EMP, my discussions with my supervisor Dr. Aziz Ahmad Khan, a linguist and Ex. Vice Chancellor National University of Modern Languages (NUML) Islamabad, my online discussions with Dr. Naveed Ahmad Chaudhry from Department of English at Bahauddin Zakaria University (BZU) Multan, who was based in United Kingdom to pursue his postdoctoral studies in the area of ESP, my discussions with different medical doctors including my brother and friends also my own research insights.

I arranged all possible factors related to listening, speaking, reading and writing skills of the medical learners with regard to their academic and occupational roles in the beginning of questionnaire formation process. Firstly, I considered possible aspects related to language issues of the medical students in order to address their academic domain. Afterwards, I gathered points related to the occupational language needs of the medical learners.
In addition, I followed common principles of designing questionnaires in second language research (e.g., Dornyei, 2003; Jordan, 1997; Brown, 1995; Oppenheim, 1992). Previous literatures in needs analysis studies that had similar goals and purposes were also consulted exhaustively (e.g., Al-Bazzaz, 1994; Ahmad, 2005; Alharby, 2005; Tusci, 2007). Thus, questionnaires were finally constructed on the basis of information gathered from these informal interviews as well as on the basis of questionnaires used in previous needs analyses studies conducted in medical contexts (Boztas, 1987; Chia et al., 1998, as cited in Tusci, 2007), also the literature on ESP was consulted in this regard.

For this purpose, the preliminary step was to have frequent meetings and interviews with students of medicine, teachers of medicine, medical trainees and medical administrators. The aim was to hold direct conversations with the subjects who were close to the main respondent groups of this research therefore, basic information could be attained in order to design final questionnaires. These were informal interviews as I did not transcribe or tape them. However, I kept necessary notes for my personal use that could be helpful in the subsequent stages of designing final shape of questionnaires.

Since the information needed to be gathered from four different members of the medical discourse community therefore, I designed four questionnaires yet with some similarities and differences for each group of sample population. Questionnaire 1 was designed for the students of medicine. Questionnaire 2 gathered information from the teachers of medicine. Questionnaire 3 was meant to collect data from medical trainees. Questionnaire 4 was designed to gather information from medical administrators.
3.4.5. Division of the Contents of Questionnaires

All questionnaires were divided into four sections (see Appendices B, Appendix C, Appendix D and Appendix E for Questionnaires 1, 2, 3 and 4, respectively). The details are as follows:

3.4.5.1. Demographical Information

Part One of all questionnaires (i.e., questionnaires 1, 2, 3 and 4) was consisted of the demographical information of the participants. It was necessary for the purposes of this research to obtain demographical data about respondents for two reasons. First, providing this information ensured that participants were part of the medical discourse community. Any questionnaire filled out by anyone from outside the domain of the intended population was disregarded. Second, information about the gender and age helped to compare the experiences of different cohorts. Thus, the demographical information was sought from all the members according to their respective positions. In questionnaires 1 and 2, four items (i.e., items 1, 2, 3 and 4) were designed to obtain biographical information from respondents whereas in questionnaire 3 and 4, three items (i.e., items number 1, 2 and 3) represented biographical information.

3.4.5.2. Frequency of Usage of English

Part Two of all questionnaires (i.e., questionnaires 1, 2, 3 and 4) was related to frequency of usage of English in medical field. Therefore, in questionnaires 1 and 2, three similar items (i.e., items number 5, 6 and 7) were designed whereas one additional item (i.e., item number 8) was included in questionnaire 2, in order to know about teachers’ own academic and professional experiences regarding English language needs in medical field. Similarly, in questionnaire 3, three items (i.e., items number 4, 5 and 6) were designed whereas in questionnaire 4, five items (i.e., items 4, 5, 6, 7 and 8) were designed to obtain information from respondents related to the frequency of usage of English in the medicine.
3.4.5.3. Importance of English

Part Three of the questionnaires (i.e., questionnaires 1, 2, 3 and 4) sought information in regard to importance of four English language skills (i.e., listening, speaking, reading and writing) and thus the items were designed accordingly. In questionnaire 1, six items (i.e., items number 8, 9, 10, 11, 12 and 13) were designed. Similarly, questionnaire 2 contained six items (i.e., items number 9, 10, 11, 12, 13 and 14) in this section. In questionnaire 3, six items (i.e., items number 7, 8, 9, 10, 11 and 12) were included whereas in questionnaire 4, three items (i.e., items number 9, 10 and 11) related to importance of English in medical studies and profession were designed.

3.4.5.4. Analytical Assessment

Part Four in all questionnaires (i.e., questionnaires 1, 2, 3 and 4) was related to analytical assessment. In this section, respondents were sought to provide information in regard to their existing proficiency in English and their opinions about learning English at medical college. Therefore, five items (i.e., items number 14, 15, 16, 17 and 18) were designed in questionnaire 1, whereas four items (i.e., items number 15, 16, 17 and 18) were designed in questionnaire 2. Similarly, questionnaire 3 comprised of five items (i.e., items number 13, 14, 15, 16 and 17) and two items (i.e., items number 12 and 13) were designed in questionnaire 4, for this section.

3.5. Description of Questionnaires 1, 2, 3 and 4

Questionnaires 1, 2, 3 and 4 were designed to obtain information in regard to English language needs as perceived by the students of medicine, teachers of medicine, medical trainees and medical administrators, respectively. For this purpose, a total number of 18 items with their sub items were formed in questionnaires 1 and 2. Whereas total number of 17 items in questionnaire 3, and thus 13 items in questionnaire 4, were designed in all.

In the Part One (i.e., related to obtaining demographical information of respondents in questionnaires 1, 2, 3 and 4), item number 1 in all questionnaires asked about gender of respondents hence two options (i.e., “Male” and “Female”) were given. Similarly, item 2 was related to the age of respondents and thus, a blank space was provided to write their answers. Item 3 in questionnaire 1, inquired about the year of class in which the students were studying in a medical college. To answer this, I provided four
options (i.e., “2nd year”, “3rd year”, “4th year” and “5th year”) to students of medicine who were respondents of questionnaire 1.

In questionnaire 2, the teachers of medicine were asked to mention their teaching posts in item 3, and a blank space was provided for their answers. Similarly, in item 3 of questionnaire 3, the medical trainees were asked about their current positions. They were provided two options (i.e., “a” and “b”). Option, “a” was meant for “Training Medical Officer / Postgraduate Resident (PGR) whereas option, “b” was intended for “House Officer” (HO).

Item 3 of questionnaire 4, asked medical administrators about their current medical administrative posts and five options (i.e., “MS” for “Medical superintendent”, “DMS” for “Deputy Medical Superintendent”, “AMS” for “Assistant Medical Superintendent”, “AR” for “Administration Registrar” and “Others”) were given to them to mark their choices according to the instructions provided.

However, item 4 of questionnaire 1, obtained information from medical students in regard to their medium of instruction in school. To answer this item, four options (i.e., “Urdu medium”, “English medium”, “O level” and “Other) were given. Item 4 of questionnaire 2, intended to know about the administrative posts (e.g., head of departments and deans) of teachers therefore, two options (i.e., “Yes” and “No”) were provided. Thus, four items in questionnaires 1 and 2 were designed whereas three items in questionnaires 3 and 4 were designed, respectively to obtain demographical information from all respondents.

Part Two of questionnaires 1, 2, 3 and 4 was related to frequency of usage of English in medical field. In this section the students, teachers and medical trainees were mainly asked about information related to medical studies of the students of medicine whereas medical administrators were sought information with reference to their jobs in medical profession. Item 5 of questionnaire 1 and 2, similarly item 4 of questionnaire 3, sought information regarding perceived percentage of using English in the medical studies. In this regard, five options (i.e., “91- 100 %”, “71- 90%”, “51-70%”, “31-50%” and “No opinion”) were given for their answers. Hence, in the item 4 of questionnaire 4, the medical administrators were sought to provide information about perceived percentage of using English in their work.
In the item 6 of questionnaire 1 and 2, and in the item 5 of questionnaire 3, respondents were asked with whom the medical students communicated in English and thus, five options (i.e., “Teachers”, “Administrators”, “Students”, “Patients” and “Others”) were given them to mark their choices. In questionnaire 4, similar item (i.e., item 5) sought information about medical administrators and four options (i.e., “Administrators”, “Paramedical staff”, “Patients” and “Others”) were provided for their answers.

Item 7 in questionnaires 1 and 2, and item 6 of questionnaire 3, obtained information about the frequency of usage of English by medical students to communicate with other health professionals (e.g., nurses, paramedical staff etc.) during medical studies. Therefore, five options (i.e., “Always”, “Often”, “Sometimes”, “Rarely”, “Never”) were provided for their answers. Similar item number 6, in questionnaire 4 sought information about medical administrators. In questionnaire 2, item number 8 asked about opinions of teachers of medicine regarding their needs of English language. Therefore, a total number of 17 related sub-items/options were designed and thus teachers of medicine were asked to check all appropriate items according to their choices.

In questionnaire 4, items 7 and 8 were designed in order to know about medical training courses of respondents. In item 7, two options (i.e., “Yes” and “No”) were given. If respondents answered, “Yes” in response to item 7, it would lead to item 8, providing them with four choices (i.e., “Urdu”, “English”, “Both” and “Other”) to answer.

Part Three of questionnaires 1, 2, 3 and 4 sought information related to importance of four English language skills (i.e., listening, speaking, reading and writing). Item 8 in questionnaires 1, and item 9 in questionnaire 2, asked about the importance of high level of English language proficiency to perform medical studies effectively. Hence, five options (i.e., “Extremely important”, “Important”, “Somewhat important”, “Not important”, and “No opinion”) were given for answers. Similar item was designed in questionnaire 3 (i.e., item 7) and in questionnaire 4 (i.e., item 9) that sought information from respondents about their job. Hence, item 9 in questionnaires 1, item number 10 in questionnaire 2, item 8 in questionnaire 3 and item 10 in questionnaire 4, asked respondents to rank more important English language skills. The given scale was designed in descending order indicating “4” as “Most important” and “1” as “Least important”.
Item 10 of questionnaire 1, item 11 of questionnaire 2, and item 9 of questionnaire 3, were about the importance of English for the future careers of medical students. Therefore, five options (i.e., “Extremely important”, “Important”, “Somewhat important”, “Not important”, and “No opinion”) were given. Item 11 of questionnaire 1, item 12 of questionnaire 2, and item 10 of questionnaire 3, asked about importance of sufficient competence in English for medical purposes. To answer this question, respondents were given five options (i.e., “Extremely important”, “Important”, “Somewhat important”, “Not important”, and “No opinion”).

Item 12 in questionnaires 1, item 13 in questionnaire 2 similarly, item 11 in questionnaires 3 and 4, asked about the importance of high level of English proficiency in the listening, speaking, reading and writing skills related to activities in medical studies and job. A scale (i.e., 1, 2, 3, 4, 5) was given in each block of table in which all the sub-items/activities related to medical studies and job were mentioned. Respondents were asked to circle their choice as “5” being “Most important”, “4” as “Important”, “3” as “Moderately important”, “2” as “Somewhat important” and “1” as “Least important”. A total number of 17 sub-items/activities were designed for students, teachers and trainees. In the similar item, 12 sub-items/activities were designed for medical administrators. The option “Others” was given as an open-ended choice in all questionnaires in this item.

Selection of these activities was not an easy task. It was not feasible to ask respondents to generate a list of their own activities due to time limitations and possible problems of reliability. I generated a list of possible activities during my informal interviews and frequent visits to the medical colleges during initial stages of thesis writing. In addition, I reviewed literature related to EMP needs analysis research done across different areas of world. Initially, the list was presented to three Pakistani medical doctors under the guidelines of my supervisor for feedback. All activities were perceived as relevant to the medical field however to account for any other unanticipated activities, I left a blank as “Others” at the end of the activities and asked respondents to mention any additional activity which they thought was relevant and I had missed. However, all medical doctors considered the list of activities pretty comprehensive yet I provided option, “Others” for the future respondents of this research. Thus, item 13 of questionnaire 1, item 14 of questionnaire 2, and item 12 of questionnaire 3, obtained information regarding importance of English skills for the success of medical students in their medical studies. For this purpose eight options were given.
Part Four of questionnaires 1, 2, 3 and 4 was analytical assessment. Item 14 of questionnaires 1, and item 15 of questionnaire 2, asked respondents to describe existing proficiency of medical students in English language skills (i.e., listening, speaking, reading and writing). Therefore, five options (i.e., “Excellent”, “Good”, “Fair”, “Poor”, “No opinion”) were provided to mark their choices. Item 13 in questionnaire 3, and item 12 in questionnaire 4, sought information from medical trainees and medical administrators to mention their own existing level of proficiency in English.

Item 15 of questionnaire 1, and item 16 of questionnaire 2, sought information about rating of existing proficiency of medical students in ten different factors of English language according to the scale provided. Five options (i.e., “1” for “Poor”, “2” for “Below average”, “3” for “Average”, “4” for “Very good” and “5” for “Excellent”) were provided in this regard. Similar item (i.e., item 14) was designed for medical trainees in questionnaire 3, to describe their own proficiency level. Option, “others” was given as an open-ended choice in this item.

Item 16 of questionnaire 1, was related to the relevancy of English language courses. Therefore, five options (i.e., “Extremely”, “A lot”, “Somewhat”, “A little”, “Not relevant at all”) were given. Item 17 of questionnaire 1, sought information in regard to comparison of English language proficiency before and after joining medical college. To answer this item, five options (i.e., “Much worse”, “Somewhat worse”, “About the same”, “Somewhat better”, “Much better”) were provided. Similarly, item 15 of questionnaire 3, pertained to medical trainees about rating their knowledge of English after they had graduated from medical college. Hence, five options (i.e., “Much worse”, “Somewhat worse”, “About the same”, “Somewhat better” and “Much better”) were given for their answers.

Item 17 of questionnaire 2, item 16 of questionnaire 3, and item 13 of questionnaire 4, were open-ended items. These items provided opportunity to the respondents (i.e., teachers of medicine, medical trainees and medical administrators) to write down their opinions in regard to English language needs (e.g., issues of listening, speaking, reading and writing) of medical learners. Teachers and trainees were directed to mark their opinions about medical students whereas, medical administrators were sought perceptions about their own needs of English language in medical field. This item provided qualitative data for this study.
Item 18 of questionnaires 1 and questionnaire 2, similarly item 17 of questionnaire 3, were designed to identify opinions of respondents (i.e., students, teachers and trainees) about learning English at medical college. The respondents were provided 12 options in this regard. The scale was set as “1” for “Strongly disagree”, “2” for “Disagree”, “3” for “Not sure”, “4” for “Agree” and “5” for “Strongly agree”.

According to Dornyei (2003), a good questionnaire uses a crosscheck question to inform the researcher about the reliability of his respondents to judge whether they were paying attention to the questions or answering carelessly. Therefore, I designed the contents of questionnaires in such an order that would crosscheck the opinions of respondents. The details of the number of items designed in questionnaires 1, 2, 3 and 4 are illustrated in the following (e.g., Table 3.2).
Table 3.2
The Table Representing Subsidiary Research Questions and their Related Items in Questionnaires 1, 2, 3 and 4

<table>
<thead>
<tr>
<th>Serial No</th>
<th>Subsidiary questions (To answer main research questions)</th>
<th>Questionnaire 1 for students of medicine</th>
<th>Questionnaire 2 for teachers of medicine</th>
<th>Questionnaire 3 for medical trainees</th>
<th>Questionnaire 4 for medical administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is the frequency of usage of English in the academic and occupational settings of medical learners in the medical colleges of Punjab?</td>
<td>Items 5, 6 and 7</td>
<td>Items 5, 6, 7 and 8</td>
<td>Items 4, 5 and 6</td>
<td>Items 4, 5, 6, 7 and 8</td>
</tr>
<tr>
<td>2</td>
<td>What is the importance of English for the medical learners in their academic and occupational settings and for performing what kind of activities?</td>
<td>Items 8, 9, 10, 11, 12 and 13</td>
<td>Items 9, 10, 11, 12, 13 and 14</td>
<td>Items 7, 8, 9, 10, 11 and 12</td>
<td>Items 9, 10 and 11</td>
</tr>
<tr>
<td>3</td>
<td>What is the existing level of proficiency of medical learners in listening, speaking, reading, and writing skills of English?</td>
<td>Items 14, 15, 16 and 17</td>
<td>Items 15, 16 and 17</td>
<td>Items 13, 14, 15 and 16</td>
<td>Items 12 and 13</td>
</tr>
<tr>
<td>4</td>
<td>What are the perceptions of different groups of medical discourse community regarding learning English at medical college?</td>
<td>Item 18</td>
<td>Item 18</td>
<td>Item 17</td>
<td>Nil</td>
</tr>
</tbody>
</table>

*Note: Item 8 in questionnaire 2 was specifically designed for teachers of medicine as to know about their own academic and occupational needs of English.*
3.5.1. Types of Questions

Questionnaires had open-ended as well as closed-ended items. Open-ended items were designed to provide qualitative data, on the other hand, closed-ended items aimed at seeking quantitative data. Most of the items were closed-ended. The closed-ended items included questions for biographical information, Likert scale, ranking and multiple response questions. For closed-ended items, generally five options were given to respondents. The options provided respondents a range between two extremes.

Initially, I designed questionnaires to achieve statistical results due to large-scale population. It helped in removing demotivating effect while participating as respondents might find it tedious to write down details in large spaces when writing free responses. Oppenheim (1966) has rationalized that closed-ended questions force respondents to choose only between the choices provided therefore I gave option, ‘Others’ as open-ended suggestion in the closed-ended items wherever it was applicable. Similarly, I included one open-ended question in questionnaires 2, 3 and 4, respectively for writing down respondents’ detailed opinions and thus left sufficient space for their answers. I did not add open-ended question for free descriptive opinions in questionnaire 1, for two reasons; firstly, sample population representing students of medicine was quite large therefore, it was impossible to deal with their responses qualitatively. Secondly, students might not have mature opinions in this regard. Thus, I used two main types of questions (i.e., closed-ended and open-ended questions) in questionnaires design.

3.6. Piloting and Validation

Oppenheim (1966) has indicated that a pilot work can be very helpful, acting as a “healthy check” on the research that has been carried out so far and crucial to discover any risky ambiguities existing within the questions, or such questions that may elicit responses that are too vague or even meaningless, and will expose any questions that are too wide, too narrow, too technical or too abstract, all of which may cause problems at a later stage. According to Payne (1951), pilot work is necessary to aid the design process of questionnaire itself. This process would be helpful in providing a clear idea how much white space was required below for free answers as it might affect the respondent’s enthusiasm. Hence, this procedure gave me inkling that how choices mentioned in the preliminary forms of questionnaires might affect respondents’ answers in future.
I carried out the pilot study prior to actual administration of research questionnaires. I designed questionnaires in English and focused on the issue whether respondents were able to comprehend the questions without any obvious issues of understanding the contents. I created a list of contents to include in questionnaires and for this purpose I consulted previous research studies carried out in the field of EMP in order to ascertain the relevancy and validity of the contents of questionnaires for present study.

Dornyei (2003) has indicated that the maximum length of a questionnaire in second language research is three to four pages and it should not take beyond thirty minutes of time limit for its completion. Questionnaires 1, 2 and 3, respectively consisted of four pages whereas, questionnaire 4 comprised of three pages. The reason for designing comparatively a shorter questionnaire for the medical administrators was that I had already noticed during my initial visits to the medical colleges and hospitals that medical administrators were enormously busy people who were not only looking after administrative issues but also practicing as doctors/in charges in different wards. Therefore, it was necessary to keep the length of their questionnaire minimal hence, to avoid any problems in terms of future data collection.

I attached an additional page with all questionnaires that was typed with an implied questionnaire consent form for respondents of this study. The items of questionnaires were adjusted in such a pattern, as respondents would not take longer than twenty minutes of time limit in order to complete each of questionnaires. The participants of pilot study filled out all questionnaires within 20 minutes and thus, the length of questionnaires faced no issues of time.

I paid special attention while designing the lay out of questionnaires with regard to font size, typing, formatting, spacing, and paper quality. Oppenheim (1992) rationalized that the professional quality of the layout can produce a good impression about questionnaire, which in turn affects the quality of the responses.

Another important aspect was related to respondents’ confidentiality. Dornyei (2003) has remarked that respondents can be reluctant to give honest answers about opinions and perceptions therefore respondents’ confidentiality can promise the elements of honesty and willingness to disclose. Hence, I avoided to obtain individually identifiable information from respondents and directed them in the consent form not to mention their names. This was also confirmed that the information provided by
respondents would be used only for academic and research purposes (see Appendix B, Appendix C, Appendix D, Appendix E for implied consent forms from respondents as stated in all questionnaires). I mentioned my e-mail address on questionnaire consent form therefore respondents might contact in future for additional feedback regarding this study. Questionnaire consent form was for the following reasons:

1. The first page of questionnaire clearly stated, “Please note that by completing this questionnaire you agree that the researcher is allowed and permitted to use the information that you provide for research and publication purposes only.” It would guarantee respondents that the data obtained by them would not be used for any unethical purposes.

2. I highlighted the issue of respondents’ anonymity by mentioning not to write their names as their names would have revealed their identity that could create barriers in producing honest responses.

3. Respondents of this study were adults and their participation was voluntary. Questionnaire did not contain any sensitive data therefore no risk was involved while eliciting information from respondents.

4. I collected data from the city of Rawalpindi, respondents might have been reluctant from cultural or regional viewpoints therefore I waived the option for them to write their names.

Having structured the initial form of questionnaires, I sent them to two linguists for final comments. One of them was Dr. Aziz Ahmad Khan who was my supervisor at NUML for present study and Dr. Naveed Ahmad Chaudhry from Department of English at BZU Multan. I sent one copy of the designed questionnaires to my friend Dr. Umer Farooq from the Department of Community Medicine at Abbot Abad Medical College, Abbot Abad. All reviewed the preliminary versions of questionnaires and provided feedback in terms of clarity of language, contents, paraphrasing and organization. I followed their comments and discussed in detail with my supervisor.

Next step was to pilot questionnaires therefore the validity, reliability and applicability would be tested. It was essential to flag up any potential ambiguities which might adversely affect the quality or validity of responses gained during final round of
research. I did not require a very larger number of participants to carry out pilot study. I decided to conduct this with the help of Dr. Umer Farooq and thus handed final drafts of questionnaires over to him subsequently to distribute among the related groups of population. Since he was faculty member in a medical college therefore it was comparatively easier for him to motivate the participants to take part and get a meticulous feedback from his colleagues and students which provided me suitable participants for this study.

Respondents participated with dual motivation of wanting to help a colleague and teacher also to participate in a study that would be interesting for them. A number of eight completely filled questionnaires gave me a response rate of 100 % representing three students, two teachers, two medical trainees and one medical administrator. This could be considered as a higher response rate for any academic studies, which would point out any obvious flaws in questionnaires. The pilot study confirmed the following aspects:

- The questions were related to each of the respondent’s field.
- The activities marked in questionnaires were relevant to the field of medicine.
- The questions contained elements of clarity and easy understanding for respondents.
- The language used in questionnaires was simple.
- The time mentioned to complete questionnaires was appropriate.
- All items were easy to respond.
- There were no formatting/typing errors.
- There were comments sought from respondents of pilot study in terms of general design of questionnaires.
- I encouraged participants to provide their suggestions for further improvement in questionnaires.
I had designed a page of evaluative questions (e.g., Table 3.4, p. 139 for Evaluative Questions in the Evaluation Chart for the Pretesting Phase of questionnaires 1, 2, 3 and 4) for respondents of pilot study for their comments and suggestions and attached it at the end of each questionnaire and sent them for distribution. Respondents of pilot study provided with their feedback at the end of all filled questionnaires. Respondents verified the following points and gave their suggestions according to which I made necessary modifications:

- All respondents mentioned that the questions and activities were related to their respective fields.

- The respondents found the language and content of questionnaires simple, clear and easy to understand.

- All respondents answered questionnaires within 20 minutes however only one respondent took 23 minutes. As the average time spent in completing questionnaires by all respondents was within the mentioned time frame therefore, I considered the length of questionnaires appropriate.

- One of respondents suggested to add an important activity, “Delivering lectures” in the item 8 of questionnaire 2, which I had missed. Hence, I included it in the final draft of questionnaire 2, in item 8 as sub-item vi.

- Similarly, one of the teachers suggested to include an open-ended question with sufficient space to write their opinions, which I had included in questionnaire 2 as item 17, in questionnaire 3 as item 16 and in questionnaire 4 as item 13 (e.g., Table 3.4, p. 139, for Evaluation Chart for the Pretesting Phase of questionnaires 1, 2, 3 and 4).

  Oppenheim (1966) highlighted the need, while using attitude scales, to ask the question in more than one way to increase the accuracy of responses, although Sudman and Bradburn (1982) have indicated that this may prove counter productive, adversely affecting the responses provided by members of the sampling universe, as participants are
often resentful when they have to answer the same question twice. For this reasons, I tried to avoid frequent repetitions however, in few cases I found it essential in order to highlight any inconsistencies in the attitudes of respondents. Moreover, I avoided crowding of the questions therefore formatted them in vertical order. Keeping all the above-mentioned factors in view, I made necessary modifications after having carried out the pilot study. The pilot study concluded that respondents did not have any issues in understanding the form and contents of questionnaires. This ascertained the validity in terms of clarity.

3.6.1. Statistician’s Opinion

While designing questionnaires, I sought opinion of statistician Dr. Muhammad Aslam Asadi from Department of Statistics at BZU Multan. He evaluated first drafts of research questionnaires for this study therefore any anticipated ambiguities could be removed in the later stages of statistical analysis. He indicated the following issues, which I improved in the final drafts of questionnaires. The first item, which I rephrased according to statistician’s opinion, was originally as:

Which of the following English skills do you think are more important than the others for medical studies? (Rank them this way: 1 = Most important; 4 = Least important. Rank all.)

This was item 9 in questionnaire 1, item 10 in questionnaire 2, item 8 in questionnaire 3, and item 10 in questionnaire 4. Thus, I changed scales from ascending to descending order as the statistician pointed out:

In my view, ranking should be in descending order (i.e., 1 for the least important and 4 for the most important) as most of respondents unintentionally give highest score thinking it to represent highest importance.

Therefore, I rephrased item number 12 in questionnaire 1, item 13 in questionnaire 2, and item 11 in questionnaire 3 and questionnaire 4, respectively. Moreover, I rephrased item 15 in questionnaire 1, item 16 in questionnaire 2, and item 14 in questionnaire 3. Originally this item was as:
Please read the following factors and use the scale given below to determine what English language problems you may currently be facing in medical studies. (Please circle the appropriate number)

The statistician mentioned:

In Sample Survey Terminology, the sub-questions asked in this question are Negative Questions that may arise some confusion while responding. This question may be asked like; Please, rate your proficiency in English language according to the scale given below.

I rephrased this question as:

Read the following factors and rate your proficiency in English language according to the scale given below.

In the next meeting with my supervisor, I discussed all necessary points as highlighted by statistician. My supervisor gave a final review to all questionnaires and approved their final drafts.

3.6.2. Discussions with Supervisor

I had regular meetings and detailed discussions with my supervisor during construction and design of all questionnaires. He discussed regarding various aspects of methodology followed in this study. Keeping in mind, four different members of discourse community as respondents of this research, he resolved numerous ambiguities during the process of questionnaires design with his expert opinions. He provided me with relevant materials and reference books for the structure and design of a comprehensive survey questionnaire. He discussed with me specifically in terms of the lay out, questionnaire consent form, parts of questionnaires, correct use of language, development of contents and items similarly, various other related issues. My supervisor indicated an extremely important issue regarding questionnaires design (i.e., to divide questionnaire items into four different sections). He grouped the items and allocated them under appropriate section headings in all questionnaires. Dividing questionnaires into four different sections provided me with great help and understanding during data analyses procedures in the subsequent stages.
In addition, it provided respondents with clear understanding of items. This division also aided in giving an expert professional shape to questionnaires. My supervisor further suggested me to include questions for teachers of medicine, medical trainees and medical administrators in regard to their own academic and professional needs, which I added in the final drafts of research questionnaires. Finally, my supervisor checked and reviewed each of these items carefully.

3.7. Distribution Rate and Return Rate of Questionnaires

Questionnaires were distributed among students of medicine, teachers of medicine, medical trainees and medical administrators. Table 3.3 provides information related to the number of questionnaires distributed to each group of population, the number of returned questionnaires and thus their rate of return.

Table 3.3

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Sample population</th>
<th>Number of questionnaires distributed</th>
<th>Number of questionnaires returned (after data sifting)</th>
<th>Return rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RMC</td>
<td>IIMC</td>
<td>RMC</td>
</tr>
<tr>
<td>Questionnaire 1</td>
<td>Students of medicine</td>
<td>280</td>
<td>80</td>
<td>148</td>
</tr>
<tr>
<td>Questionnaire 2</td>
<td>Teachers of medicine</td>
<td>70</td>
<td>60</td>
<td>66</td>
</tr>
<tr>
<td>Questionnaire 3</td>
<td>Medical trainees</td>
<td>100</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>Questionnaire 4</td>
<td>Medical administrators</td>
<td>30</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Total (N=480)</td>
<td>Total (N=305)</td>
<td>Total (N=125)</td>
<td>Overall Percentage</td>
<td>Overall Percentage</td>
</tr>
<tr>
<td>Total (N=690)</td>
<td>Total (N=430)</td>
<td>Overall Percentage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N= Total Number of Questionnaires  RMC= Rawalpindi Medical College  IIMC= Islamic International Medical College
3.8. Data Collection Procedure

In this section, I will account for the procedure of permission obtained from the medical colleges. The data were to be gathered from four different members of discourse community also from different locations of the medical colleges and their associated teaching hospitals. The primary step was to seek permission in order to carry out this research in medical colleges. Therefore, I visited the office of PM&DC in Islamabad, since PM&DC was renowned as basic regulatory and statutory authority responsible for governance of issues related to medical field in Pakistan. The administrative authority in PM&DC referred me to the principals of medical colleges, as each medical college was considered an autonomous body to deal with such issues. Thus, I obtained letter of request issued from NUML, Islamabad in which the nature and purpose of my visit to the concerned research sites was explicitly mentioned.

Firstly, I visited IIMC and sought an appointment to see the Principal. I briefly informed the principal about my purpose and reproduced letter of request (see Appendix F for the first version of Letter of Request Issued by NUML) in this regard. The principal drew my attention towards an important issue. He required a letter of request specifically issued in the name of principal IIMC by my university. Then, he referred me to the vice principal (VP) IIMC due to his anticipated absence from the institute in regard to his visit abroad. In the next meeting with VP (IIMC), I submitted revised version of letter of request issued by NUML and thus was granted permission (see Appendix G for Letter of Grant of Permission Issued by IIMC). The VP (IIMC) appointed a teacher from Department of Community Medicine, as my facilitator for further procedures.

My next research site was RMC, therefore I decided to go to the Tipu Road (Old Campus) Rawalpindi to see the principal. Initially, my visit proved to be unfruitful as the administrative staff informed me that I could only visit the principal after few days for two reasons. Firstly, the principal’s main office was situated in the NTB (HFH) Satellite Town Rawalpindi that was located at a considerable distance from Old Campus. Secondly, the principal might not be available for visitors for next few days due to the dengue seminar that was supposed to be held those days at Chief Minister Punjab’s orders. Despite knowing chances were minimal regarding availability of principal, I still decided to visit the principal at NTB (HFH). The personal secretary of the principal referred me to the staff officer who guided me in terms of requisite future official procedures whilst failing to offer any assurance with regard to meeting with principal.
However, I put up letter of request by NUML issued specifically in the name of principal RMC.

Keeping in view, upcoming Eid-ul-Adha holidays and my return to Multan, I requested the principal’s staff officer to expedite my case for the grant of permission for research at RMC that was only possible after having a meeting with principal. Hence, my meeting with the principal was arranged in next few days. The principal granted permission (see Appendix H for Letter of Permission Issued by RMC) after elaborated discussion on my research area. He appointed the Head of Community Medicine, as my facilitator at RMC for data collection.

Initially, I had decided to carry out research in three medical colleges of Punjab including two public sector medical colleges and one private sector medical college. Therefore, apart from RMC and IIMC, I had selected Nishtar Medical College Multan (NMC) and its associated hospitals for three reasons. Firstly, Multan was one of the oldest and bigger cities in the province. Secondly, Multan was my hometown therefore, it was comparatively easier to travel there and collect data. Thirdly, NMC was one of the largest medical colleges in the province that would cover the region of southern Punjab.

After having sought permission from RMC and IIMC, I moved to Multan. I had been personally visiting NMC for more than a week after Eid-ul-Adha holidays. However, the concerned authority regretted to allow me to conduct research on the grounds that students were busy in examination (see Appendix I for the Letter Issued by NMC). Whereas, I was granted permission by the other public sector medical college (i.e., RMC) despite the fact students were busy in examination preparation in this medical college too. Hence, I delimited my study only to two medical colleges (i.e., RMC and IIMC) instead of three as it was infeasible to travel to any other big city due to logistic, financial and time constraints as a researcher.
3.8.1. Administration of Questionnaires

In this section, I will give a detailed account of method of data collection, process of return of questionnaires and will mention time frame for administering questionnaires. By the end of January 2012, I confirmed the availability of students after their final examination. Having known that all the population groups were present at their respective places during that time of year, I left for Rawalpindi. In the meantime, principal RMC was transferred and new principal had taken over charge.

I started collecting data in the first week of February 2012, from both medical colleges in Rawalpindi. The four groups of respondents (i.e., students of medicine, teachers of medicine, medical trainees and medical administrators) had participated in this study. Since, tools selected for this study were questionnaires therefore, I got four separate bundles of questionnaires photocopied. Keeping the convenience of respondents in view, I sought guarantee from the photocopier for the use of good paper quality and clear ink at comparatively higher market rates. I divided questionnaires firstly into four different bundles according to different categories of respondents and thus for their respective medical college (i.e., RMC and IIMC).

I had obtained preliminary information about total number of participants related to each group of medical discourse community during introductory sessions with the principals, teachers and administrative staff. Thus, I finalized total number of questionnaires with mutual consent of my supervisor. Table 3.3 gives details of total number of questionnaires distributed in RMC and IIMC.

3.8.2. Methods of Data Collection

I divided all questionnaires and made packets for students, respectively mentioning the year of class. Hence four packets were made for the students of medicine. Similarly, I prepared separate packets for teachers, medical trainees and medical administrators for both IIMC and RMC. I initiated process of data distribution and collection at IIMC that was located comparatively at a shorter distance than RMC from my residence in Rawalpindi. It was appropriate to finish my task at IIMC at first, as I had to travel frequently by means of public transport. In IIMC, I handed over all packets to my facilitator for distribution and collection of data.
The VP (IIMC) sent out questionnaires to medical trainees and medical administrators in the associated teaching hospital. I was supposed to collect filled questionnaires on a specific date. In the meantime, I remained in regular contact with my facilitator at IIMC through telephone until I had finally collected the required data.

Afterwards, I visited RMC (NTB-HFH) in order to collect data. My facilitator received questionnaires for the students and teachers of Community Medicine Department. Hence, my facilitator advised me to remain present in order to collect data from students after their classes. The personal assistant of my facilitator guided me to the other departments since I was not familiar with the offices of all the heads of departments (HODs). The HODs collected certain number of unfilled questionnaires from me according to the availability of the members of their respective teaching staff. There were couple of departments where the HODs were on leave. Therefore, I visited staff rooms of teachers and distributed data among them according to their availability. Similarly, I distributed questionnaires among students at NTB-HFH at RMC in the 3rd year, 4th year and 5th year of MBBS classes with the help of my facilitator, the HODs and the class representatives. I collected filled questionnaires the next day of distribution.

Similarly, the HODs at Tipu Road-Old Campus RMC helped in distribution and collection of data from students and teachers. I collected data from their offices on assigned dates. During data collection process, HODs offered their utmost cooperation. For instance, staff members of one of the departments did not fill out questionnaires. Their HOD took strict notice in this regard as it was my third visit despite their commitment with me on a specific date. The staff members followed the instructions and reproduced all questionnaires within twenty minutes.

Next, I decided to collect data from the remaining two groups of respondents (i.e., medical trainees and medical administrators) from associated teaching hospitals. The trainees were only available in their respective wards. It was enormously tough task to have questionnaires filled by PGRs and HOs, as they were extremely busy people. Most of them filled out questionnaires during their dealings with a huge number of patients. I had to sit with each of the trainees in his/her wards for this purpose. They filled out questionnaires despite their tough schedules in general and emergency wards including their duties in labor rooms. The medical trainees enthusiastically participated in general discussions and encouraged the purpose of study for an instant implementation of course
of English in the medical colleges. Similarly, I visited all possible medical administrators available at their respective offices and distributed questionnaires among them.

3.8.3. Process of Return

It took nearly two months to collect data from IIMC and RMC. I kept in regular contact with the key persons for the return of data. The VP (IIMC) returned filled questionnaires in the beginning of March 2012 however, the response rate was too low. Questionnaires for teachers at IIMC were not filled in required number. Therefore, I went to all the teachers at IIMC in person and requested them to fill out the remaining questionnaires. I successfully collected data from IIMC on March 22, 2012 and informed the concerned authority thanking them for their cooperation. The authority at IIMC issued me a certificate of research (see Appendix J for Research Certificate Issued by IIMC) in this regard. I finished data collection procedure at RMC and its associated teaching hospitals, on March15, 2012. I met principal and warmly thanked him for the cooperation of his staff at RMC. Similarly, the principal RMC issued me research certificate (see Appendix K for Research Certificate Issued by RMC) for this study at his institute.

I received better cooperation in terms of data collection at RMC as compared to IIMC. Furthermore, wherever, I distributed and collected data personally, the feedback was overwhelming as compared to the method in which data were collected by the administrative staff during my personal absence. It took seven weeks to accomplish data distribution and collection procedure that had started in the first week of February 2012 and ended in the third week of March 2012.
<table>
<thead>
<tr>
<th>Serial. No</th>
<th>Respondents</th>
<th>Do you think all the questions are relevant to medical field?</th>
<th>Do you think the activities mentioned in part 3 are related to medical field?</th>
<th>Are the questions clear and easy to read?</th>
<th>How long did it take you to finish the questionnaire?</th>
<th>Is there any item that you did not understand?</th>
<th>Do you have any other suggestions to improve the questionnaire?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Student#1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, All of them</td>
<td>10 minutes</td>
<td>Not really</td>
<td>Good luck</td>
</tr>
<tr>
<td>2</td>
<td>Student#2</td>
<td>Yes</td>
<td>Indeed</td>
<td>Very much</td>
<td>11 minutes</td>
<td>None</td>
<td>It is a good effort</td>
</tr>
<tr>
<td>3</td>
<td>Student#3</td>
<td>Most of them were relevant</td>
<td>Yes</td>
<td>Yes</td>
<td>16 minutes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Teacher#1</td>
<td>Yes</td>
<td>Mostly</td>
<td>Majority are clear</td>
<td>20 minutes</td>
<td>No</td>
<td>You have missed an important activity, Delivering Lectures in question 8</td>
</tr>
<tr>
<td>5</td>
<td>Teacher#2</td>
<td>Yes</td>
<td>Yes, relevant</td>
<td>Yes</td>
<td>19 minutes</td>
<td>No, there was not any such item</td>
<td>I suggest you to add an open-ended question for free opinions</td>
</tr>
<tr>
<td>6</td>
<td>Trainee#1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>15-20 minutes</td>
<td>There was nothing that could not be understood</td>
<td>It is good and serves the purpose</td>
</tr>
<tr>
<td>7</td>
<td>Trainee#2</td>
<td>Yes</td>
<td>Surely</td>
<td>Yes</td>
<td>23 minutes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>Administrator#1</td>
<td>Yes</td>
<td>Yes, very much relevant</td>
<td>Yes, clear and easy</td>
<td>Approximately 15 minutes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
3.9. Data Entry

In this section, I will give a detailed account of the entry of both qualitative and quantitative data.

3.9.1. Quantitative Data (responses to closed ended- items)

I entered responses of all four questionnaires into Excel Work book (2011) Version 14.0.0 (100825). For this purpose, I imported all items of questionnaires in the worksheets designed by statistician and then entered collected data into columns and rows accordingly. I used a separate worksheet for each of four different questionnaires. Then I shifted all the data into IBM- SPSS Statistics Version 20 (2011) by means of labeling and values.

3.9.2. Qualitative Data (responses to open-ended items)

I sifted questionnaires according to the categories of respondents from each group of medical discourse community. Then I typed responses on a separate Microsoft Word (2011) document for questionnaires 2, 3 and 4, respectively. A two-column table was drawn for each open-ended question. I entered word for word response in the first column within each row of table whereas in the second column I presented a summary of main ideas.

3.10. Data Analysis

In this section, I will briefly provide information regarding qualitative and quantitative data analyses.

3.10.1. Quantitative Data

a) Analysis of separate forms of questionnaires

I applied descriptive statistics in order to analyze responses to questions that were presented in the format of Likert-scale. I presented results in the form of tables for frequencies and percentages of respondents for each question. Mode has been chosen as the most suitable method for the type of data collected in this research. Means and standard deviations were also calculated to measure mode value for
each question. I presented data analysis in the form of graphs by means of using excel sheet wherever it seemed necessary.

b) Comparing the perceptions of professional groups
The process (i.e., comparing and cross-checking the results of various stakeholder responses) for which the term ‘triangulation’ (Moore-Thomas & Erford, 2003, p. 721) had been used, was important in terms of needs analyses studies. Therefore, I chose to apply ONE WAY ANOVA tests to draw comparisons for average perceptions of all the groups of medical discourse community in this study. Least Significant Difference (LSD) test was used to compute significant difference between the means. The comparative analyses were made for common contents of all questionnaires. However, dissimilar questions of all questionnaires were analyzed separately.

3.10.2. Qualitative Data (responses to closed-ended questions)
I analyzed responses to open-ended questions by grouping related responses and identifying similar themes.

3.11. Conclusion
In this chapter, I provided detailed information about research methods and methodology followed in this study for the investigation of English language needs of the medical learners in Pakistan. Therefore, a detailed description had been given about the participants of this research and rationales were presented why they were selected in order to gather data for present study. The research sites, instruments employed for collecting data and data analyses procedures for both quantitative and qualitative portions were also discussed. The following chapters would lead to a comprehensive description of the data analyses processes and results of the study.
CHAPTER 4

ANALYSIS OF FREQUENCY OF USAGE OF ENGLISH

The purpose of this chapter is to present and analyze data gathered from different groups of sample population with reference to frequency of usage of English in medical studies and job. It begins with a detailed description of demographical information regarding all groups of population. Then it presents analysis of data related to first subsidiary research question. As the present study aimed at investigating academic and occupational language needs of medical learners with regard to four language skills (i.e., listening, speaking, reading and writing) for the recommendation of a course of English in response to the needs identified. For this purpose, data were gathered from four different groups of medical discourse community: students, teachers, trainees and administrators. The questionnaire 1 gathered data from students of medicine, questionnaire 2 gathered information from teachers of medicine, questionnaire 3 collected data from medical trainees and questionnaire 4 gathered data from medical administrators.

Each questionnaire was specifically designed to obtain comprehensive information from all groups regarding English language needs of medical learners and thus the items in questionnaires were designed accordingly. Questionnaires 1, 2 and 3 mainly emphasized on gathering data related to academic English language needs of the students of medicine with reference to their medical studies. Therefore, almost similar items were designed in first three questionnaires. The questionnaire 4, on the other hand, focused on obtaining data regarding professional English language needs of medical learners. Hence, both academic as well as professional needs related to English language of medical learners were addressed in this study. All questionnaires were divided into four parts. The similar items in questionnaires provided an opportunity to draw comparisons between perceptions of different groups of population during analysis stage. The gathered data were analyzed both quantitatively and qualitatively.
4.1. Demographical Information of Respondents

Table 4.1

Frequencies and Percentages of Total Number of Respondents and their Gender

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Number</th>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>203</td>
<td>47.2</td>
<td>77</td>
<td>37.9</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>22.09</td>
<td>48</td>
<td>51.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>23.4</td>
<td>44</td>
<td>43.6</td>
</tr>
<tr>
<td>Administrators</td>
<td>31</td>
<td>7.2</td>
<td>27</td>
<td>87.1</td>
</tr>
</tbody>
</table>

Note. Number= Total Number of Respondents   F= Frequency   P= Percentage

Table 4.1 presents frequencies and percentages related to number and gender of respondents. Among the total number (N=430) of respondents, 203 (47.2%) respondents were from students of medicine for questionnaire 1, 95 (22.09%) respondents were from teachers of medicine for questionnaire 2, 101 (23.4%) respondents were from medical trainees for questionnaire 3, and 31 (7.2%) respondents were from medical administrators for questionnaire 4, who completed questionnaires regarding this study.

As for gender, 196 (45.58%) were male respondents and 234 (54.41%) were female respondents. In addition, 77 (37.9%) male respondents and 126 (62.1%) female respondents were from students of medicine. 48 (51%) male respondents and 47 (49%) female respondents represented teachers of medicine. 44 (43.6%) male respondents and 57 (56.4%) female respondents belonged to medical trainees. Similarly, 27 (87.1%) male respondents and 04 (12.9%) female respondents represented medical administrators.
Table 4.2

*Descriptive Statistics of Average Age of Respondents*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Frequency</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>17.00</td>
<td>28.00</td>
<td>21</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>25.00</td>
<td>58.00</td>
<td>41</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>22.00</td>
<td>32.00</td>
<td>26</td>
</tr>
<tr>
<td>Administrators</td>
<td>31</td>
<td>31.00</td>
<td>58.00</td>
<td>46</td>
</tr>
</tbody>
</table>

Table 4.2 presents descriptive statistics related to comparison of average age of all respondents. The average age of the respondents of questionnaire 1 (i.e., students of medicine) was approximately 21 years. The average age of the respondents of the questionnaire 2 (i.e., teachers of medicine) was 41 years. The average age of respondents of questionnaire 3 (i.e., medical trainees) was 26 years. The average age of respondents of questionnaire 4 (i.e., medical administrators) was 46 years.

Table 4.3

*Frequencies and Percentages of Respondents Related to their Medical Colleges*

<table>
<thead>
<tr>
<th>College</th>
<th>Students</th>
<th>Teachers</th>
<th>Trainees</th>
<th>Admn</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
</tr>
<tr>
<td>RMC</td>
<td>148</td>
<td>72.9</td>
<td>66</td>
<td>69.5</td>
<td>70</td>
</tr>
<tr>
<td>IIMC</td>
<td>55</td>
<td>27.1</td>
<td>29</td>
<td>30.5</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100</td>
<td>95</td>
<td>100</td>
<td>101</td>
</tr>
</tbody>
</table>

*Note:* Admn= Medical administrators  F= Frequency  P=Percentage

Table 4.3 presents frequencies and percentages in regard to the medical college of the respondents. Among the respondents of the questionnaire 1, 148(72.9%) respondents from students of medicine belonged to RMC while, 55(27.1%) respondents from students of medicine were from IIMC. For questionnaire 2, 66(68.8%) respondents from teachers of medicine belonged to RMC and 29(30.2%) respondents from teachers of medicine belonged to IIMC. For questionnaire 3, 70(69.3%) respondents were from medical trainees belonging to RMC while, 31(30.7%) respondents from medical trainees represented IIMC. Similarly, among the respondents of questionnaire 4, 21(67.7%) respondents from medical administrators belonged to RMC whereas, 10(32.3%)
respondents among medical administrators were from IIMC. Out of a total number of (N=430) respondents of this research, 305(70.9%) respondents were from RMC and 125(29.06%) respondents were from IIMC.

4.1.1. Students of Medicine

Table 4.4
Frequencies and Percentages of Medical Class of Students

<table>
<thead>
<tr>
<th>Class</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd year</td>
<td>48</td>
<td>23.06</td>
</tr>
<tr>
<td>3rd year</td>
<td>47</td>
<td>23.02</td>
</tr>
<tr>
<td>4th year</td>
<td>56</td>
<td>27.06</td>
</tr>
<tr>
<td>5th year</td>
<td>52</td>
<td>25.06</td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.4 presents frequencies and percentages regarding class of respondents in which they were studying. 48(23.8%) respondents from students of medicine belonged to 2nd year of MBBS, 47(23.2%) respondents were from 3rd year of MMBS, 56(27.6%) respondents were from 4th year of MBBS, and 52(25.6%) respondents were from 5th year of MBBS classes who completed questionnaires for this study.

Table 4.5
Frequencies and Percentages of Students’ Medium of Instruction at High School Level

<table>
<thead>
<tr>
<th>Class</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urdu Medium</td>
<td>45</td>
<td>22.1</td>
</tr>
<tr>
<td>English Medium</td>
<td>140</td>
<td>68.9</td>
</tr>
<tr>
<td>O Level</td>
<td>18</td>
<td>8.8</td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.5 presents frequencies and percentages in regard to medium of instruction of medical students in high school. 45(22.1%) respondents from the students of medicine were from Urdu medium background of schooling, 140(68.9%) respondents among students of medicine were from English medium background of school education
whereas, 18(8.8%) respondents, were from O level system of education. There was not any choice marked by the respondents of this category for option, “others”. It showed that the students mostly belonged to the English medium schools including O level system of education. Figure 4.1 illustrates the details of results in this regard.

Figure 4.1. Medium of instruction at high school.
4.1.2. Teachers of Medicine

Table 4.6

<table>
<thead>
<tr>
<th>Post</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrator</td>
<td>41</td>
<td>42.7</td>
</tr>
<tr>
<td>Senior demonstrator</td>
<td>21</td>
<td>21.9</td>
</tr>
<tr>
<td>Senior registrar</td>
<td>01</td>
<td>1.0</td>
</tr>
<tr>
<td>Assistant professor</td>
<td>13</td>
<td>3.5</td>
</tr>
<tr>
<td>Associate professor</td>
<td>07</td>
<td>7.3</td>
</tr>
<tr>
<td>Professor</td>
<td>03</td>
<td>3.1</td>
</tr>
<tr>
<td>APMO</td>
<td>04</td>
<td>4.2</td>
</tr>
<tr>
<td>APWMO</td>
<td>05</td>
<td>5.2</td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. APMO= Additional Principal Medical Officer APWMO=Additional Principal Women medical Officer

Table 4.6 presents details about posts of teachers of medicine. The respondents of questionnaire 2 (i.e., teachers of medicine) belonged to different teaching posts who participated in this research. 41(42.7%) respondents were demonstrators. 21(21.9%) respondents were senior demonstrators, 01(1.0%) respondent was senior registrar, 13(13.5%) respondents were assistant professors, 07(7.3%) respondents were associate professors, 03(3.1) respondents were professors, 04(4.2%) respondents were additional principal medical officers (APMOs) and 05(5.2%) respondents were additional principal women medical officers (APWMOs).
Table 4.7  
*Frequencies and Percentages of Medical Teachers with Administrative Posts*

<table>
<thead>
<tr>
<th>Administrative post</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>18</td>
<td>18.8</td>
</tr>
<tr>
<td>No</td>
<td>77</td>
<td>80.2</td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.7 presents frequencies and percentages regarding administrative posts of teachers. Among the respondents from the group of teachers of medicine, 18(18.8%) respondents were holding some administrative posts along with teaching positions whereas, 77(80.2%) respondents were only teaching in medical colleges and they did not have any administrative duties in medical colleges.

### 4.1.3. Medical Trainees

Table 4.8  
*Frequencies and Percentages of Posts of Medical Trainees*

<table>
<thead>
<tr>
<th>Trainees</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMO/PGR</td>
<td>49</td>
<td>48.5</td>
</tr>
<tr>
<td>HO</td>
<td>52</td>
<td>51.5</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Note. TMO/PGR= Training Medical Officer/Postgraduate Resident  
HO= House Officer*

Table 4.8 presents details regarding posts of medical trainees. 49(48.5%) respondents were training medical officers/postgraduate residents (TMOs/PGRs), and 52(51.5%) respondents were house officers (HOs).
### 4.1.4. Medical Administrators

Table 4.9

*Frequencies and Percentages of Medical Administrators’ Current Administrative Positions*

<table>
<thead>
<tr>
<th>Current position</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS</td>
<td>03</td>
<td>9.7</td>
</tr>
<tr>
<td>DMS</td>
<td>04</td>
<td>12.9</td>
</tr>
<tr>
<td>AMS</td>
<td>08</td>
<td>25.8</td>
</tr>
<tr>
<td>AR</td>
<td>13</td>
<td>41.9</td>
</tr>
<tr>
<td>Other</td>
<td>03</td>
<td>9.67</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Note.* MS=Medical Superintendent  DMS=Deputy Medical Superintendent  AMS=Assistant Medical Superintendent  AR=Administration Registrar

Table 4.9 presents information related to current administrative positions of medical administrators. 03(9.7%) respondents were medical superintendents (MS), 04(12.9%) respondents were deputy medical superintendents (DMS), 08(25.80%) respondents were assistant medical superintendents (AMS), 13(41.9%) respondents were administration registrars (ARs) and 03(9.67%) respondents indicated their administrative posts as “other” which included senior registrar, medical officer and medical social officer.
4.2. Results of the First Subsidiary Research Question

First subsidiary research question was: What is the frequency of usage of English in the academic and occupational settings of medical learners in the medical colleges of Punjab? Hence, the results of first subsidiary research question were as follows:

4.2.1. Perceived Percentage of Using English in Medical Studies and Work

Table 4.10

*Frequencies and Percentages of Combined Groups’ Perceptions Regarding Perceived Percentage of Using English*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>91-100%</th>
<th>71-90%</th>
<th>51-70%</th>
<th>31-50%</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
</tr>
<tr>
<td>Students</td>
<td>82</td>
<td>40.4</td>
<td>69</td>
<td>34.0</td>
<td>33</td>
</tr>
<tr>
<td>Teachers</td>
<td>46</td>
<td>48.4</td>
<td>22</td>
<td>23.2</td>
<td>21</td>
</tr>
<tr>
<td>Trainees</td>
<td>45</td>
<td>44.6</td>
<td>24</td>
<td>23.8</td>
<td>17</td>
</tr>
<tr>
<td>Administrators</td>
<td>16</td>
<td>51.6</td>
<td>08</td>
<td>25.8</td>
<td>04</td>
</tr>
<tr>
<td>N</td>
<td>189</td>
<td>+</td>
<td>123</td>
<td>+</td>
<td>75</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents  F= Frequency  P= Percentage*

Table 4.10 presents frequencies and percentages of combined groups’ perceptions in regard to perceived percentage of using English in the medical studies. 82(40.4%) respondents from students of medicine perceived that English was used in medical studies from “91-100%”, 69(34.0%) respondents mentioned usage of English was “71-90%” in medical studies, 33(16.3%) respondents believed that English was “51-70%,” used, 11(5.4 %) respondents indicated that English was “31-50%” used in medical studies, 08(3.9%) respondents did not give any opinion in this regard. Figure 4.2 illustrates the details of results in this regard.

For providing perceived percentage of using English in the medical studies, 46(48.4%) respondents from teachers of medicine perceived that English was used in medical studies from “91-100%”, 22(23.2%) respondents mentioned that usage of English was “71-90%”, 21(22.1%) respondents believed that English was “51-70%,” used
in medical studies, 05(5.3%) respondents indicated that usage of English in medical studies was “31-50%” and 01(1.1%) respondent did not give any opinion. Figure 4.3 illustrates the details of results in this regard.

For providing perceived percentage of using English in medical studies, 45(44.6%) respondents from medical trainees perceived that English was used from “91-100%”, in medical studies, 24(23.8%) respondents mentioned that usage of English in medical studies was “71-90%”. 17(16.8%) respondents believed that English was “51-70%,” used in medical studies, 15(14.9%) respondents indicated that usage of English in medical studies was “31-50%”, there was no such respondent who marked choice “no opinion” for this item. Figure 4.4 illustrates the details of results in this regard.

For providing perceived percentage of using English in the medical work, 16(51.6%) respondents from medical administrators perceived that English was used in medical work from, “91-100%”. 08(25.8%) respondents mentioned that usage of English in their medical work was, “71-90%”, 04(12.9%) respondents believed that usage of English in their medical work was “51-70%”, 03(9.7%) respondents indicated that usage of English in their medical work was “31-50%” and there was no such respondent who marked “no opinion” for this item. Figure 4.5 illustrates the details of results in this regard.

Figure 4.2. Students’ perceptions regarding perceived percentage of using English.
Figure 4.3. Teachers’ perceptions regarding perceived percentage of using English.

Figure 4.4. Trainees’ perceptions regarding perceived percentage of using English.
Figure 4.5. Administrators’ perceptions regarding perceived percentage of using English.

4.2.1.1. Comparison of Combined Groups’ Perceptions

Figure 4.6. Combined groups’ perceptions regarding perceived percentage of English in medical studies and job.
Table 4.11

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>1.9852</td>
<td>2.0</td>
<td>1.0</td>
<td>1.11922</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>1.87368</td>
<td>2.0</td>
<td>1.0</td>
<td>1.00257</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>2.0198</td>
<td>2.0</td>
<td>1.0</td>
<td>1.10436</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Administrators</td>
<td>31</td>
<td>1.80645</td>
<td>1.0</td>
<td>1.0</td>
<td>1.01388</td>
<td>1.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

*Note. N=Total Number of Respondents  SD= Standard Deviation  Min= Minimum Scale  Max= Maximum Scale*

Table 4.11 presents descriptive statistics of perceived percentage of using English in medical studies and job. The mode value for average perceptions of students, teachers, trainees and administrators was 1.0, respectively. This indicates that students of medicine, teachers of medicine, medical trainees and medical administrators believed that the perceived percentage of using English in medical studies and job was from, “91-100%”. Figure 4.6 illustrates the details of results in this regard.

Table 4.12

**ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Perceived Percentage of Using English**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1.92148</td>
<td>3</td>
<td>0.640495</td>
<td>0.57</td>
<td>0.6347</td>
</tr>
<tr>
<td>Within groups</td>
<td>478.239</td>
<td>426</td>
<td>1.12263</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>480.16</td>
<td>429</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. The mean difference is significant at the .05 level.  Df= Degree of Freedom*

The ONE WAY ANOVA test was used to know the equality of average perceptions among groups regarding perceived percentage of using English in medical studies and job. Table 4.12 and Table 4.13 indicate that the results were insignificant as p-value was greater than 0.05. This concludes that the average perceptions of medical
students, teachers, trainees and administrators were identical. Figure 4.7 illustrates the details of results in this regard.

Table 4.13

LSD Pair wise Comparison Test between Medical Group’ Average Perceptions Regarding Perceived Percentage of English

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>0.111537</td>
<td>0.258881</td>
<td></td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>-0.0345803</td>
<td>0.253589</td>
<td></td>
</tr>
<tr>
<td>Students - Administrators</td>
<td>0.17877</td>
<td>0.401589</td>
<td></td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td>-0.146118</td>
<td>0.297651</td>
<td></td>
</tr>
<tr>
<td>Teachers - Administrators</td>
<td>0.0672326</td>
<td>0.430769</td>
<td></td>
</tr>
<tr>
<td>Trainees - Administrators</td>
<td>0.21335</td>
<td>0.42761</td>
<td></td>
</tr>
</tbody>
</table>

Note. No statistically significant difference was found.

Figure 4.7. Mean plot regarding perceptions of perceived percentage of English.
4.2.2. Communication in English with Whom

Table 4.14

<table>
<thead>
<tr>
<th>Communication With</th>
<th>Teachers</th>
<th>Administrators</th>
<th>Students</th>
<th>Patients</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F (55.7%)</td>
<td>P (21.4%)</td>
<td>F (16.9%)</td>
<td>P (3.1%)</td>
<td>F (2.9%)</td>
<td>350*</td>
</tr>
<tr>
<td>R (Respondents)</td>
<td>ST (195)</td>
<td>75 (21.4%)</td>
<td>59 (16.9)</td>
<td>11 (3.1)</td>
<td>10 (2.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TE (90)</td>
<td>24 (15.5%)</td>
<td>33 (21.3)</td>
<td>03 (1.9)</td>
<td>05 (3.2)</td>
<td>155*</td>
</tr>
<tr>
<td></td>
<td>TR (96)</td>
<td>30 (19.5%)</td>
<td>23 (14.9)</td>
<td>02 (1.3)</td>
<td>03 (1.9)</td>
<td>154*</td>
</tr>
<tr>
<td>N (Total)</td>
<td>381</td>
<td>129</td>
<td>115</td>
<td>16</td>
<td>18</td>
<td>659</td>
</tr>
</tbody>
</table>

Note. * A respondent may have more than one response in this case. N= Total Number of Respondents
R= Respondents ST= Students TE= Teachers TR= Trainees F= Frequency P= Percentage

Table 4.14 presents frequencies and percentages of combined groups’ perceptions in regard to communication in English with whom. 195(55.7%) responses from respondents of students of medicine indicated that students needed English to communicate with “teachers”, 75(21.4%) responses of respondents marked “administrators” in this item, 59(16.9%) responses of respondents suggested that they needed English to communicate with “students”. 11(3.1%) responses of respondents revealed that they needed English to communicate with “patients” whereas, 10(2.9%) responses of respondents indicated that students required English to communicate with “others” that included family, friends and foreigners. Figure 4.8 illustrates the details of results in this regard.

For communicating in English with whom, 90(58.1%) responses from respondents of teachers of medicine reported that students of medicine needed English to communicate with “teachers”, 24(15.5%) responses from respondents marked “administrators” in this item, 33(21.3%) responses from respondents indicated that
students needed English to communicate with other “students”. 03(1.9%) responses from respondents reported that students needed English to communicate with “patients”, 05(3.2%) responses from respondents mentioned that students required English to communicate with “others” that included foreigners. Figure 4.9 illustrates the details of results in this regard.

For communicating in English with whom, 96(62.3%) responses from respondents of medical trainees showed that students of medicine needed English to communicate with “teachers”, 30(19.5%) responses of respondents marked “administrators” in this item, 23(14.9%) responses from respondents indicated that students needed English to communicate with other “students”. 02(1.3%) responses from respondents reported that students needed English to communicate with “patients”, 03(1.9%) responses from respondents indicated that they required English to communicate with “others” (i.e., foreigners). Figure 4.10 illustrates the details of results in this regard.

<table>
<thead>
<tr>
<th>Communication with Whom (Students' Perceptions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
</tr>
<tr>
<td>Others</td>
</tr>
<tr>
<td>Patients</td>
</tr>
<tr>
<td>Students</td>
</tr>
<tr>
<td>Administrators</td>
</tr>
<tr>
<td>Teachers</td>
</tr>
<tr>
<td>2.9</td>
</tr>
<tr>
<td>3.1</td>
</tr>
<tr>
<td>16.9</td>
</tr>
<tr>
<td>21.4</td>
</tr>
<tr>
<td>55.7</td>
</tr>
</tbody>
</table>

*Figure 4.8. Percentages of students' perceptions regarding communication in English with whom.*
Figure 4.9. Percentages of teachers’ perceptions regarding communication in English with whom.

Figure 4.10. Percentages of trainees’ perceptions regarding communication in English with whom.
4.2.2.1. Comparison of Combined Groups’ Perceptions

Figure 4.11. Combined groups’ perceptions regarding communication in English with whom.

Figure 4.11 illustrates that the majority of respondents from groups of students of medicine, teachers of medicine and medical trainees believed that students of medicine required English to communicate with “teachers” extensively as 381(57.8%) responses showed that students needed English to communicate with “teachers”, 129(19.5%) responses showed that students needed English to communicate with “administrators”, 115(17.4%) responses showed that students needed English to communicate with other “students”, 16(2.4%) responses indicated that students needed English to communicate with “patients”. The results revealed that students needed English to communicate with “administrators” and “fellow students” almost at equal scale yet lesser than what they required for communicating with “teachers”. The medical students required English at the minimum scale to communicate with “patients” and “others” as compared to previously mentioned options.
Table 4.15

**Frequencies and Percentages of Administrators’ Perceptions Regarding Communication with Whom**

<table>
<thead>
<tr>
<th>Communication with</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators</td>
<td>16</td>
<td>51.6</td>
</tr>
<tr>
<td>Patients</td>
<td>04</td>
<td>12.9</td>
</tr>
<tr>
<td>Paramedical staff</td>
<td>09</td>
<td>29.03</td>
</tr>
<tr>
<td>Others</td>
<td>02</td>
<td>6.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.15 presents frequencies and percentages of administrators’ perceptions in regard to communication in English with whom. 16(51.6%) responses from respondents of medical administrators indicated that administrators needed English to communicate with other “administrators”, 04(12.9%) respondents believed that administrators needed English to communicate with “patients”, 09(29.3%) respondents felt that they needed English to communicate with “paramedical staff” and 02(6.4%) respondents perceived that they needed English to communicate with “others” including friends and family.

Figure 4.12 illustrates that medical administrators needed English, most frequently to communicate with the other “administrators” working in hospital. They required English at a comparatively lesser scale to communicate with “patients” and “paramedical staff”. They needed English to communicate with “others” at a very small scale.
4.2.3. English with Other Health Professionals

Table 4.16

Frequencies and Percentages of Combined Groups’ Perceptions Regarding Communication with Other Health Professionals

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>11</td>
<td>5.4</td>
<td>30</td>
<td>14.8</td>
<td>61</td>
<td>30.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>01</td>
<td>1.1</td>
<td>33</td>
<td>34.7</td>
<td>39</td>
<td>41.1</td>
</tr>
<tr>
<td>Trainees</td>
<td>01</td>
<td>1.0</td>
<td>19</td>
<td>18.8</td>
<td>33</td>
<td>32.7</td>
</tr>
<tr>
<td>Administrators</td>
<td>01</td>
<td>3.2</td>
<td>08</td>
<td>25.8</td>
<td>16</td>
<td>51.6</td>
</tr>
<tr>
<td>N</td>
<td>14</td>
<td>+</td>
<td>90</td>
<td>+</td>
<td>149</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents, F= Frequency, P= Percentage

Table 4.16 presents frequencies and percentages of combined groups’ perceptions in regard to the need of English to communicate with other health professionals. 11(5.4%) respondents from students of medicine perceived that students “always” needed English to communicate with other health professionals. 30(14.8%) respondents believed that
they “often” needed English whereas, 61(30%) respondents indicated that they “sometimes" needed English to communicate with other health professionals. 60(29.6%) respondents perceived that they “rarely” needed English to communicate with other health professionals. 41(20.2%) respondents believed that they “never” needed English to communicate with other health professionals. Figure 4.13 illustrates the details of results in this regard.

For the need of English to communicate with other health professionals, 01(1.1%) respondent from teachers of medicine perceived about the students of medicine that students “always” needed English to communicate with other health professionals. 33(34.7%) respondents believed that students “often” needed English whereas, 39(41.1%) respondents indicated that students “sometimes” needed English to communicate with other health professionals. 17(17.9%) respondents perceived that students “rarely” needed English to communicate with other health professionals. 05(5.3%) respondents considered that the students of medicine “never” needed English to communicate with other health professionals. Figure 4.14 illustrates the details of results in this regard.

For the need of English to communicate with other health professionals, 01(1.0%) respondent from medical trainees perceived about the students of medicine that students “always” needed English to communicate with other health professionals. 19(18.8%) respondents believed that students “often” needed English whereas, 33(32.7%) respondents indicated that students “sometimes” needed English to communicate with other health professionals. 38(37.6%) respondents perceived that students “rarely” needed English to communicate with other health professionals. 10(9.9%) respondents considered that the students of medicine “never” needed English to communicate with other health professionals. Figure 4.15 illustrates the details of results in this regard.

For the need of English to communicate with other health professionals, 01(3.2%) respondent from medical administrators perceived that administrators “always” needed English to communicate with other health professionals. 08(25.8%) respondents believed that administrators “often” needed English whereas, 16(51.6%) respondents indicated that they “sometimes" needed English to communicate with other health professionals. 04(12.9%) respondents perceived that they “rarely” needed English to communicate with other health professionals. 02(6.5%) respondents considered that they
“never” needed English to communicate with other health professionals. Figure 4.16 illustrates the details of results in this regard.

The overall results show that majority of respondents for this item believed that they sometimes needed English to communicate with other health professionals. Figure 4.18 illustrates the details of overall results in this regard.

![Communication with other Health Professionals (Students' Perceptions)](image)

*Figure 4.13. Percentages of students’ perceptions regarding communication with other health professionals.*
Figure 4.14. Percentages of teachers’ perceptions regarding communication with other health professionals.

Figure 4.15. Percentages of trainees’ perceptions regarding communication with other health professionals.
4.2.3.1. Comparison of Combined Groups’ Perceptions

Table 4.17

Descriptive Statistics of Combined Groups’ Perceptions Regarding Communication in English with Other Health Professionals

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.44335</td>
<td>3.0</td>
<td>3.0</td>
<td>1.13036</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>2.91579</td>
<td>3.0</td>
<td>3.0</td>
<td>0.883214</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.36634</td>
<td>3.0</td>
<td>3.0</td>
<td>0.935123</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Administrators</td>
<td>31</td>
<td>1.67742</td>
<td>2.0</td>
<td>2.0</td>
<td>0.599283</td>
<td>1.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note. N=Total Number of Respondents  SD= Standard Deviation  Min=Minimum Scale  Max= Maximum Scale

Table 4.17 presents descriptive statistics of combined groups’ perceptions in regard to communication in English with other health professionals. The results reveal that mode value for perceptions of students, teachers and trainees was 3.0, respectively. This indicates that all the groups of respondents (i.e., students, teachers and trainees)
perceived that medical students “sometimes” needed English to communicate with other health professionals. The mode value for administrators’ perceptions was 2.0. This indicates that administrators “often” needed English to communicate with other health professionals. Figure 4.18 illustrates the details of results in this regard.

Table 4.18

**ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Need of English to Communicate with Other Health Professionals**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>94.2066</td>
<td>3</td>
<td>31.4022</td>
<td>31.14</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>429.645</td>
<td>426</td>
<td>1.00856</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>523.851</td>
<td>429</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* * The mean difference is significant at the .05 level. Df = Degree of Freedom

The ONE WAY ANOVA Table 4.18 was used to know the equality of average perceptions among groups regarding need of English to communicate with other health professionals. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers, trainees and administrators were not identical.

Table 4.19

**LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Communication with Other Health Professionals**

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>0.52756</td>
<td>0.245376</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td></td>
<td>0.0770131</td>
<td>0.24036</td>
</tr>
<tr>
<td>Students – Administrators</td>
<td>*</td>
<td>1.76593</td>
<td>0.380639</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td>*</td>
<td>-0.450547</td>
<td>0.282124</td>
</tr>
<tr>
<td>Teachers – Administrators</td>
<td>*</td>
<td>1.23837</td>
<td>0.408298</td>
</tr>
<tr>
<td>Trainees – Administrators</td>
<td>*</td>
<td>1.68892</td>
<td>0.405303</td>
</tr>
</tbody>
</table>

*Note.* * Denotes a statistically significant difference.
LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 4.19 indicates that pairs (Students – Teachers, Students – Administrators, Teachers – Trainees, Teachers – Administrators and Trainees – Administrators) average perceptions were different. And pair (Students – Trainees) average perceptions were insignificant because their averages were identical. Figure 4.17 illustrates the details of results in this regard.

![Means and 95.0 Percent LSD Intervals](chart)

Figure 4.17. Mean LSD Plot for medical groups regarding English communication with other health professionals.
Figure 4.18. Combined groups’ perceptions regarding English communication with other health professionals.
4.2.4. English during Medical Training Courses at Hospital

Table 4.20

*Frequencies and Percentages of Administrators’ Perceptions Regarding English during Medical Training Courses at Hospital*

<table>
<thead>
<tr>
<th>Language</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>14</td>
<td>45.2</td>
</tr>
<tr>
<td>Both English and Urdu</td>
<td>10</td>
<td>32.3</td>
</tr>
<tr>
<td>Not engaged in medical training courses</td>
<td>07</td>
<td>22.6</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.20 presents frequencies and percentages of administrators’ perceptions in regard to use of English language during medical training courses. 24(77.4%) respondents from medical administrators mentioned that they had been engaged in medical training courses whereas, 07(22.6%) respondents believed that they were not engaged in medical training courses. 14(45.2%) respondents amongst those, who were engaged in medical training courses while working at hospital, indicated that English language was used during their medical training courses. 10(32.3%) respondents regarded that both English and Urdu were used in medical training courses. Figure 4.19 illustrates the details of results in this regard.

![English Language during Medical Training Courses (Administrators’ Perceptions)](image)

*Figure 4.19. Use of English during medical training courses at hospital.*
4.2.5. English Needed for Academic and Professional Purposes *(For Teachers of Medicine)*

Table 4.21

*Distribution of Frequencies and Percentages of Teachers’ Perceptions Regarding English Needed the Most for Academic and Professional Purposes*

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Responses*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N*</td>
</tr>
<tr>
<td>While participating in seminars presented in English both at home and abroad</td>
<td>91</td>
</tr>
<tr>
<td>In order to follow the literature of my own specialty specifically</td>
<td>82</td>
</tr>
<tr>
<td>Phone conversations</td>
<td>50</td>
</tr>
<tr>
<td>In order to keep track of the literature about new techniques and treatments in medicine in general</td>
<td>80</td>
</tr>
<tr>
<td>To understand the manuals of medical equipment</td>
<td>83</td>
</tr>
<tr>
<td>Delivering lectures</td>
<td>87</td>
</tr>
<tr>
<td>Write laboratory Reports</td>
<td>68</td>
</tr>
<tr>
<td>Communicating with patients</td>
<td>41</td>
</tr>
<tr>
<td>Memos</td>
<td>51</td>
</tr>
<tr>
<td>Professional training courses</td>
<td>83</td>
</tr>
<tr>
<td>Instruction about patients</td>
<td>60</td>
</tr>
<tr>
<td>Letters</td>
<td>70</td>
</tr>
<tr>
<td>Medical prescriptions</td>
<td>78</td>
</tr>
<tr>
<td>To take notes during lectures</td>
<td>84</td>
</tr>
<tr>
<td>Meetings</td>
<td>68</td>
</tr>
<tr>
<td>Letters</td>
<td>70</td>
</tr>
<tr>
<td>Taking case histories</td>
<td>69</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1148</strong></td>
</tr>
</tbody>
</table>

Note. * A respondent may have more than one response in this case.  
N= Frequency of Responses

Table 4.21 presents frequencies and percentages of teachers’ perceptions in regard to the frequency of need of English in their academic and professional lives. The details are as follows:
1. While participating in seminars presented in English both at home and abroad
For the purpose of participating in seminars presented in English both at home and abroad, 91(7.9%) responses from respondents of teachers of medicine revealed that teachers extensively required English during their academic and professional medical careers.

2. In order to follow the literature of my own specialty specifically
For the need of English in order to follow the literature of their own specialty specifically, 82(7.1%) responses from respondents of teachers of medicine indicated that teachers needed English for consulting the literature of their own specialty specifically during their academic and professional careers.

3. In order to keep track of the literature about new techniques and treatments in medicine in general
In regard to the need of English for keeping track of the literature about new techniques and treatments in medicine in general, 80(7.0%) responses from respondents of teachers of medicine indicated that English played significant role for keeping teachers of medicine updated with new techniques and treatments in medicine during their academic and professional careers.

4. To understand the manuals of medical equipments
In regard to the need of English to understand the manuals of medical equipments, 83(7.2%) responses from respondents of teachers of medicine indicated that teachers needed English to understand the manuals of medical equipments.

5. Communicating with patients
For the use of English while communicating with patients, 41(3.6%) responses from respondents of teachers of medicine showed that teachers did not need English at a wider scale for communicating with patients during their academic and professional careers.

6. Phone conversations, memos and letters
Regarding the need of English during phone conversations, 50(4.4%) responses from respondents of teachers of medicine, indicated that teachers needed English during
their academic and professional careers for phone conversations. Similarly for memos, 51(4.4%) responses from respondents of teachers of medicine showed that teachers needed English for memos. In regard to letters, 70(6.1%) responses from respondents of teachers of medicine indicated that they frequently needed English to deal with letters.

7. Write laboratory reports

For using English to write laboratory reports, 68(5.9%) responses from respondents of teachers of medicine revealed that teachers required English for writing laboratory reports during their academic and professional careers.

8. Professional training courses

For the need of English during professional training courses, 83(7.2%) responses from respondents of teachers of medicine indicated that teachers needed English for professional training courses.

9. Instructions about patients

For the need of English for instructions about patients, 60(5.2%) responses from respondents of teachers of medicine indicated that teachers needed English for instructions about patients during their academic and professional careers.

10. Medical prescriptions

For the need of English in regard to medical prescriptions, 78(6.8%) responses from respondents of teachers of medicine revealed that teachers extensively needed English for medical prescriptions during their academic and professional careers.

11. To take notes during lectures

For the need of English to take notes during lectures, 84(7.3%) responses from respondents of teachers of medicine revealed that teachers highly needed English to take notes during lectures in their academic and professional careers.
12. Meetings

For the need of English during meetings, 68(5.9%) responses from respondents of teachers of medicine revealed that teachers moderately needed English for meetings during their academic and professional careers.

13. Taking case histories

For the need of English to take case histories, 69(6.0%) responses from respondents of teachers of medicine revealed that teachers needed English for taking case histories during their academic and professional careers.

14. Delivering lectures

For the need of English while delivering lectures in the class, 87(7.6%) responses from respondents of teachers of medicine revealed that teachers extensively needed English while delivering lectures in the class during their academic and professional careers.

15. Others (Miscellaneous)

In regard to the need of English for “Others”, 03(0.3%) respondents from teachers of medicine mentioned that teachers needed English for consulting Internet and reading/writing of research articles during their academic and professional careers.

4.3. Conclusion

In this chapter, I have reported findings related to demographical information and the first subsidiary research question (i.e., frequency of usage of English in academic and professional medical settings). The students, teachers and trainees provided information regarding frequency of usage of English in medical studies of medical students whereas medical administrators gave information related to frequency of usage of English in their medical jobs. However, teachers also provided information in terms of their personal experience regarding usage of English in their own studies and profession. The detailed findings reveal that majority of respondents (i.e., 72.5% respondents) perceived that their percentage of using English in medical studies and job was from 71-100% amongst them 43.9% respondents indicated that perceived percentage of using English in medical studies and job was 91-100%. As long as communication in English is concerned, the respondents frequently needed English to communicate with teachers, other medical
students, medical administrators and paramedical staff (e.g., nurses). 57.8% respondents mentioned that students needed English to communicate with teachers, 19.5% respondents reported that students needed English to communicate with administrators, 17.4% respondents reported that they needed English to communicate with students. 51.6% respondents reported that medical administrators needed English to communicate with other administrators working in their field whereas 29.03% respondents believed that administrators needed English to communicate with paramedical staff. Hence, it can be concluded that the students needed English very frequently to communicate with teachers, administrators and other fellow students in medical college. Medical administrators needed English very frequently to communicate with other administrators and thus with paramedical staff. For the need of communicating with other health professionals, 41.1% respondents from all four groups regarded that English was rarely required for communicating with other health professionals, 34.6% respondents believed that English was sometimes needed to communicate with other health professionals whereas 24.1% respondents perceived that English was often required in this regard. Majority of medical administrators (i.e., 45.2% respondents) indicated that English was widely used during medical training courses at hospital. The teachers of medicine revealed that they frequently needed English for various purposes during their academic and professional careers. The overall findings indicate that medical students and professionals needed English very extensively in their academic and professional careers.
CHAPTER 5

ANALYSIS OF IMPORTANCE OF ENGLISH

In this chapter, I will provide quantitative analyses of data gathered in regard to the importance of English in academic and occupational settings of medical field. Therefore, the second subsidiary research question was: What is the importance of English for the medical learners in their academic and occupational settings and for performing what kind of activities? The students, teachers and trainees provided information mainly related to importance of English in medical studies whereas administrators gave information related to importance of English in their job. The results are presented as follows:

5.1. Importance of High Level English Proficiency to Perform Medical Studies/Job Effectively

Table 5.1

 Frequencies and Percentages of Combined Groups’ Perceptions to Determine Importance of English to Perform Medical Studies/Job Effectively

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Extremely important</th>
<th>Important</th>
<th>Somewhat important</th>
<th>Not important</th>
<th>No opinion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>78</td>
<td>38.4</td>
<td>79</td>
<td>38.9</td>
<td>36</td>
<td>17.7</td>
</tr>
<tr>
<td>Teachers</td>
<td>52</td>
<td>54.7</td>
<td>36</td>
<td>37.9</td>
<td>06</td>
<td>6.3</td>
</tr>
<tr>
<td>Trainees</td>
<td>24</td>
<td>23.8</td>
<td>38</td>
<td>37.6</td>
<td>32</td>
<td>31.7</td>
</tr>
<tr>
<td>Administrators</td>
<td>12</td>
<td>38.7</td>
<td>17</td>
<td>54.8</td>
<td>02</td>
<td>6.5</td>
</tr>
<tr>
<td>N</td>
<td>166</td>
<td>+</td>
<td>170</td>
<td>+</td>
<td>76</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  F= Frequency  P= Percentage
Figure 5.1. Percentages of combined groups’ perceptions regarding importance of English to perform medical studies and job effectively.

Figure 5.2. Percentages of overall findings for combined groups’ perceptions regarding importance of English to perform medical studies/job effectively.
Table 5.1 presents frequencies and percentages in regard to the perceptions of all groups of respondents for the importance of high level of English proficiency to perform medical studies and job effectively. Indicating the importance of high level of English proficiency for medical students to perform their studies, 78(38.4%) respondents from medical students reported that English was “extremely important”, 79(38.9%) respondents reported that English was “important” for performing their medical studies effectively. 36(17.7%) respondents reported that English was “somewhat important” whereas, 09(4.4%) respondents reported that English was “not important” to perform medical studies effectively. 01(0.5%) respondent did not give any opinion in this item.

For the similar item, 52(54.7%) respondents from teachers of medicine indicated that high level of English proficiency was “extremely important” for medical students, 36(37.9%) respondents reported that English was “important”, 06(6.3%) respondents reported that English was “somewhat important” whereas, 01(1.1%) respondent did not give any opinion in regard to the importance of English for medical students to perform their medical studies.

In this item, medical trainees were asked to provide information in regard to the importance of high level of English proficiency for performing their job effectively. 24(23.8%) respondents from medical trainees believed that high level of English proficiency for performing their job was “extremely important”, 38(37.6%) respondents mentioned that English proficiency was “important”, 32(31.7%) respondents marked that English proficiency was “somewhat important” and 01(1.0%) respondent indicated “no opinion” in this item.

Similarly, 12(38.7%) respondents from medical administrators indicated that high level of English proficiency was “extremely important” for their medical job, 17(54.8%) respondents reported that English was “important”, 02(6.5%) respondents reported that English was “somewhat important”. Thus, in this item, medical trainees and medical administrators provided information related to the importance of high level of English proficiency for performing their job effectively.
Table 5.2

Descriptive Statistics of Combined Groups’ Perceptions to Determine Importance of English to Perform Medical Studies/Job Effectively

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>1.89655</td>
<td>2.0</td>
<td>2.0</td>
<td>0.881121</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>1.71579</td>
<td>2.0</td>
<td>1.0</td>
<td>0.67891</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>2.22772</td>
<td>1.0</td>
<td>1.0</td>
<td>0.915218</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Administrators</td>
<td>31</td>
<td>1.67742</td>
<td>2.0</td>
<td>2.0</td>
<td>0.599283</td>
<td>1.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents    SD= Standard Deviation        Min=Minimum Scale    Max= Maximum Scale

Table 5.2 presents descriptive statistics of medical groups’ perceptions (i.e., students, teachers, trainees and medical administrators) related to importance of high level of English to perform medical studies and job effectively. The mode value for the responses of students and administrators was 2.0, respectively. This indicates that students and administrators believed that English was important for both medical studies and job. Whereas mode value for responses of teachers and trainees was 1.0, respectively. This indicates that teachers and trainees believed that English was extremely important for medical studies.

5.1.1. Comparison of Combined Groups’ Perceptions

Table 5.3

ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Importance of English to Perform Medical Studies/Job Effectively

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>15.4607</td>
<td>3</td>
<td>5.14356</td>
<td>7.45</td>
<td>0.0001</td>
</tr>
<tr>
<td>Within groups</td>
<td>294.69</td>
<td>426</td>
<td>0.691762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>310.151</td>
<td>429</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level.  Df= Degree of freedom

The ONE WAY ANOVA Table 5.3 was used to test the equality of average perceptions among groups to determine the importance of English. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average
perceptions of medical students, teachers, trainees and administrators were not identical by
variety of average responses.

Table 5.4

*LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions
Regarding Importance of English to Perform Medical Studies/Job Effectively*

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>0.180762</td>
<td>0.203218</td>
<td></td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>*</td>
<td>-0.331171</td>
<td>0.199063</td>
</tr>
<tr>
<td>Students - Administrators</td>
<td>0.219132</td>
<td>0.31524</td>
<td></td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td>*</td>
<td>-0.511933</td>
<td>0.233651</td>
</tr>
<tr>
<td>Teachers - Administrators</td>
<td>0.0383701</td>
<td>0.338147</td>
<td></td>
</tr>
<tr>
<td>Trainees - Administrators</td>
<td>*</td>
<td>0.550303</td>
<td>0.335667</td>
</tr>
</tbody>
</table>

Note. *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding
average perception. Table 5.4 indicates that average perceptions of the pairs (Students –
Trainees, Teachers – Trainees, and Trainees – Administrators) were different. And pairs
(Students – Teachers, Students – Administrators and Teachers – Administrators) average
perceptions were insignificant. Figure 5.3 illustrates the details of results in this regard.
The overall findings for importance of English in medical studies and job revealed that 336(78.13%) respondents regarded that high level of English proficiency was important whereas, 76(17.6%) respondents believed that high level of English proficiency was somewhat important and 15(3.4%) respondents indicated that English was not important. Thus, the majority of respondents believed that high level of English proficiency was important for performing both medical studies and job effectively. Figure 5.1 and Figure 5.2 illustrate the details of results in this regard.

Figure 5.3. Mean plot for perceptions of medical groups regarding importance of English to perform medical studies/job effectively.
5.2. More Important English Skill than Others for Medical Studies/Job

5.2.1. Ranking English Listening Skill

Table 5.5

Frequencies and Percentages of Combined Groups’ Perceptions Regarding Ranking of English Listening Skill

<table>
<thead>
<tr>
<th>Respondents</th>
<th>1st Rank</th>
<th>2nd Rank</th>
<th>3rd Rank</th>
<th>4th Rank</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>63</td>
<td>31.0</td>
<td>66</td>
<td>32.5</td>
<td>39</td>
</tr>
<tr>
<td>Teachers</td>
<td>35</td>
<td>36.8</td>
<td>13</td>
<td>13.7</td>
<td>32</td>
</tr>
<tr>
<td>Trainees</td>
<td>37</td>
<td>36.6</td>
<td>17</td>
<td>16.8</td>
<td>21</td>
</tr>
<tr>
<td>Administrators</td>
<td>11</td>
<td>35.5</td>
<td>06</td>
<td>19.4</td>
<td>07</td>
</tr>
<tr>
<td>N</td>
<td>146</td>
<td>+</td>
<td>102</td>
<td>+</td>
<td>99</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents    F= Frequency     P= Percentage

Table 5.5 presents frequencies and percentages of combined groups’ perceptions in regard to ranking of more important skill than others. 35(17.2%) respondents from students of medicine ranked listening skill as, “fourth most important”, 39(19.2%) respondents ranked it as, “third most important”, 66(32.5%) respondents ranked it as, “second most important”, 63(31.0%) respondents ranked listening as the, “most important” skill of all four English skills.

For ranking of more important skill than others, 15(15.8%) respondents from teachers of medicine ranked listening skill as, “fourth most important”, 32(33.7%) respondents ranked it as, “third most important”, 13(13.7%) respondents ranked it as, “second most important”, 35(36.8%) respondents ranked listening skill as the, “most important” of all four English skills.

For ranking of more important skill than others, 26(25.7%) respondents from medical trainees ranked listening skill as, “fourth most important”, 21(20.8%) respondents ranked it as, “third most important”, 17(16.8%) respondents ranked it as, “second most important”, 37(36.6%) respondents ranked listening skill as the, “most important” of all four English skills.
For ranking of more important skill than others for conducting their job, 07(22.6%) respondents from medical administrators ranked listening skill as, “fourth most important”, 07(22.6%) respondents ranked it as, “third most important”, 06(19.4%) respondents ranked it as, “second most important”, 11(35.5%) respondents ranked listening skill as the, “most important” of all four English skills. 5.4 illustrates the details of results in regard to the perceptions of all groups of respondents for ranking of English listening skill.

<table>
<thead>
<tr>
<th>Administrators</th>
<th>1st Rank</th>
<th>2nd Rank</th>
<th>3rd Rank</th>
<th>4th Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.5</td>
<td>19.4</td>
<td>22.6</td>
<td>22.6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trainees</th>
<th>1st Rank</th>
<th>2nd Rank</th>
<th>3rd Rank</th>
<th>4th Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.6</td>
<td>16.8</td>
<td>20.8</td>
<td>25.7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teachers</th>
<th>1st Rank</th>
<th>2nd Rank</th>
<th>3rd Rank</th>
<th>4th Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.8</td>
<td>13.7</td>
<td>33.7</td>
<td>15.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students</th>
<th>1st Rank</th>
<th>2nd Rank</th>
<th>3rd Rank</th>
<th>4th Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>32.5</td>
<td>19.2</td>
<td>17.2</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 5.4. Percentages of combined groups’ perceptions for ranking English listening skill.*
5.2.2. Ranking English Speaking Skill

Table 5.6

*Frequencies and Percentages of Combined Groups’ Perceptions Regarding Ranking of English Speaking Skill*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>1st Rank</th>
<th>2nd Rank</th>
<th>3rd Rank</th>
<th>4th Rank</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
</tr>
<tr>
<td>Students</td>
<td>92</td>
<td>45.3</td>
<td>41</td>
<td>20.2</td>
<td>45</td>
</tr>
<tr>
<td>Teachers</td>
<td>30</td>
<td>31.6</td>
<td>25</td>
<td>26.3</td>
<td>22</td>
</tr>
<tr>
<td>Trainees</td>
<td>43</td>
<td>42.6</td>
<td>12</td>
<td>11.9</td>
<td>25</td>
</tr>
<tr>
<td>Administrators</td>
<td>14</td>
<td>45.2</td>
<td>04</td>
<td>12.9</td>
<td>05</td>
</tr>
<tr>
<td>N</td>
<td>179</td>
<td>+</td>
<td>82</td>
<td>+</td>
<td>97</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents  
F= Frequency  
P= Percentage

Table 5.6 presents frequencies and percentages of combined groups’ perceptions in regard to ranking of English speaking skill. 25(12.3%) respondents from students of medicine ranked speaking skill as, “fourth most important”, 45(22.2%) respondents ranked it as, “third most important”, 41(20.2%) respondents ranked it as, “second most important”, 92(45.3%) respondents ranked speaking skill as the, “most important” of all four English skills.

For ranking of more important skill than others, 18(18.9%) respondents from teachers of medicine ranked speaking skill as, “fourth most important”, 22(23.2%) respondents ranked it as, “third most important”, 25(26.3%) respondents ranked it as, “second most important”, and 30(31.6%) respondents ranked speaking skill as the, “most important” of all four English skills.

For ranking of more important skill than others, 21(20.8%) respondents from medical trainees ranked speaking skill as, “fourth most important”, 25(24.8%) respondents ranked it as, “third most important”, 12(11.9%) respondents ranked it as, “second most important”, 43(42.6%) respondents ranked speaking skill as the, “most important” of all four English skills.
For ranking of more important skill than others for conducting their job, 08 (25.8%) respondents from medical administrators ranked speaking skill as, “fourth most important”, 05 (16.1%) respondents ranked it as, “third most important”, 04 (12.9%) respondents ranked it as, “second most important”, 14 (45.2%) respondents ranked speaking skill as the, “most important” of all four English skills. Figure 5.5 illustrates the details of results in regard to the perceptions of all groups of respondents for ranking of English speaking skill.

**Figure 5.5.** Percentages of combined groups’ perceptions for ranking English speaking skill.
### 5.2.3. Ranking English Reading Skill

Table 5.7

_Frequencies and Percentages of Combined Groups’ Perceptions Regarding Ranking of English Reading Skills_

<table>
<thead>
<tr>
<th>Respondents</th>
<th>1st Rank</th>
<th>2nd Rank</th>
<th>3rd Rank</th>
<th>4th Rank</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
</tr>
<tr>
<td>Students</td>
<td>137</td>
<td>67.5</td>
<td>33</td>
<td>16.3</td>
<td>21</td>
</tr>
<tr>
<td>Teachers</td>
<td>54</td>
<td>56.8</td>
<td>19</td>
<td>20.0</td>
<td>08</td>
</tr>
<tr>
<td>Trainees</td>
<td>68</td>
<td>67.3</td>
<td>17</td>
<td>16.8</td>
<td>09</td>
</tr>
<tr>
<td>Administrators</td>
<td>23</td>
<td>74.2</td>
<td>02</td>
<td>6.5</td>
<td>05</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>282</td>
<td>+</td>
<td>71</td>
<td>+</td>
<td>43</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents  F= Frequency  P= Percentage*

Table 5.7 presents frequencies and percentages of combined groups’ perceptions in regard to ranking of English reading skill. 12(5.9%) respondents from students of medicine ranked reading skill as, “fourth most important”, 21(10.3%) respondents ranked it as, “third most important”, 33(16.3%) respondents ranked it as, “second most important”, 137(67.5%) respondents ranked reading skill as the, “most important” of all four English skills.

For ranking of most important skill than others, 14(14.7%) respondents from teachers of medicine ranked reading skill as, “fourth most important”, 08(8.4%) respondents ranked it as, “third most important”, 19(20%) respondents ranked it as, “second most important”, and 54(56.8%) respondents ranked reading skill as the, “most important” of all four English skills.

For ranking of more important skill than others, 07(6.9%) respondents from medical trainees ranked reading skill as, “fourth most important”, 09(8.9%) respondents ranked it as, “third most important”, 17(16.8%) respondents ranked it as, “second most important”, 68(67.3%) respondents ranked reading skill as the, “most important” of all four English skills.
For ranking of more important skill than others for conducting their job, 01(3.2%) respondent from medical administrators ranked reading skill as, “fourth most important”, 05(16.1%) respondents ranked it as, “third most important”, 02(6.5%) respondents ranked it as, “second most important”, 23(74.2%) respondents ranked reading skill as the, “most important” of all four English skills. Figure 5.6 illustrates the details of results in regard to perceptions of all groups of respondents for ranking English reading skill.

Figure 5.6. Percentages of combined groups’ perceptions for ranking English reading skill.
5.2.4. Ranking English Writing Skill

Table 5.8

*Frequencies and Percentages of Combined Groups’ Perceptions Regarding Ranking of English Writing Skill*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>1st Rank</th>
<th></th>
<th>2nd Rank</th>
<th></th>
<th>3rd Rank</th>
<th></th>
<th>4th Rank</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>N</td>
</tr>
<tr>
<td>Students</td>
<td>108</td>
<td>53.2</td>
<td>49</td>
<td>24.1</td>
<td>26</td>
<td>12.8</td>
<td>20</td>
<td>9.9</td>
<td>203</td>
</tr>
<tr>
<td>Teachers</td>
<td>44</td>
<td>46.3</td>
<td>33</td>
<td>34.7</td>
<td>08</td>
<td>8.4</td>
<td>10</td>
<td>10.5</td>
<td>95</td>
</tr>
<tr>
<td>Trainees</td>
<td>38</td>
<td>37.6</td>
<td>32</td>
<td>31.7</td>
<td>17</td>
<td>16.8</td>
<td>14</td>
<td>13.9</td>
<td>101</td>
</tr>
<tr>
<td>Administrators</td>
<td>21</td>
<td>67.7</td>
<td>06</td>
<td>19.4</td>
<td>04</td>
<td>12.9</td>
<td></td>
<td></td>
<td>31</td>
</tr>
</tbody>
</table>

| N            | 211      | 120 | 55 | 44 |   | = | 430 |

*Note.* N= Total Number of Respondents  
F= Frequency  
P= Percentage

Table 5.8 presents frequencies and percentages of combined groups’ perceptions in regard to ranking of writing skill. 20(9.9%) students of medicine ranked writing skill as, “fourth most important”, 26(12.8%) respondents ranked it as, “third most important”, 49(24.1%) respondents ranked it as, “second most important” and 108(53.2%) respondents ranked writing skill as the, “most important” of all four English skills.

For ranking of more important skill than others, 10(10.5%) respondents from teachers of medicine ranked writing skill as, “fourth most important”, 08(8.4%) respondents ranked it as, “third most important”, 33(34.7%) respondents ranked it as, “second most important”, and 44(46.3%) respondents ranked writing skill as the, “most important” of all four English skills.

For ranking of more important skill than others, 14(13.9%) respondents from medical trainees ranked writing skill as, “fourth most important”, 17(16.8%) respondents ranked it as, “third most important”, 32(31.7%) respondents ranked it as, “second most important”, and 38(37.6%) respondents ranked writing skill as the, “most important” of all four English skills.
For ranking of more important skill than others for conducting their job, 04(12.9%) respondents from medical administrators ranked it as, “third most important”, 06(19.4%) respondents ranked it as, “second most important”, 21(67.7%) respondents ranked writing skill as the, “most important” of all four English skills. Figure 5.7 illustrates the details of results in regard to perceptions of all groups of respondents for ranking English writing skill.

Figure 5.7. Percentages of combined groups’ perceptions for ranking English writing skill.
5.2.5. Comparison of Combined Groups’ Perceptions

Table 5.9

*Ranks Based on Mode: Combined Groups’ Perceptions for Importance of English Skills than Others*

<table>
<thead>
<tr>
<th>Skills</th>
<th>Students (Rank)</th>
<th>Teachers (Rank)</th>
<th>Trainees (Rank)</th>
<th>Administrators (Rank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>3 (2nd)</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
</tr>
<tr>
<td>Speaking</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
</tr>
<tr>
<td>Reading</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
</tr>
<tr>
<td>Writing</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
<td>4 (1st)</td>
</tr>
</tbody>
</table>

Table 5.9 presents results based on mode value in regard to perceptions of all four medical groups for ranking of more important English skill than others in medical studies and job. It indicates that the students ranked English listening skill as second important skill while giving first importance to English speaking, reading and writing skills. Majority of respondents from respective groups of teachers, trainees and medical administrators gave first rank to all four skills that were listening, speaking, reading and writing considering them equally as the most important skills.

By calculating frequencies and percentages in regard to majority of responses, English reading skill was ranked as first important skill as 282(65.5%) respondents ranked reading skill as the most important skill. English writing skill was ranked as second important skill as 211(49.06%) respondents ranked writing skill as most important skill. English speaking was ranked as third important skill as 179(41.6%) respondents ranked speaking skill as the third most important skill. English listening was ranked as fourth important skill as 146(33.9%) respondents ranked listening skill as the fourth important skill among all four English language skills. Figure 5.8 illustrates the details of results in regard to combined groups’ perceptions for ranking English skills.
Figure 5.8. Combined groups’ perceptions for ranking English skills.
5.3. Importance of High Level English Proficiency for Performing Academic Activities

In this section, firstly, the results are presented in regard to responses of students of medicine, teachers of medicine and medical trainees related to importance of having high level of English proficiency to perform academic activities of medical students. Then, the responses of medical administrators regarding importance of having high level of English proficiency for performing activities during their medical job are explained.

5.3.1. Lectures in Class

Table 5.10

*Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Lectures in Class*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures in class (Listening)</td>
<td>203</td>
<td>4.23153</td>
<td>5.0</td>
<td>5.0</td>
<td>0.826894</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Lectures in class (Reading)</td>
<td>203</td>
<td>3.84236</td>
<td>4.0</td>
<td>4.0</td>
<td>1.00236</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Lectures in class (Writing)</td>
<td>203</td>
<td>3.8867</td>
<td>4.0</td>
<td>4.0</td>
<td>1.00097</td>
<td>0.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents    SD= Standard Deviation   Min= Minimum Scale       Max= Maximum Scale*

Table 5.10 presents descriptive statistics of students’ perceptions to determine importance of having a high level of English proficiency for medical students during lectures in class. The mode value for students’ perceptions in regard to listening to lectures in class was 5.0. This indicates that students perceived that listening proficiency was the most important. Whereas mode value for students’ perceptions in regard to proficiency in English reading and writing during class lectures was 4.0. This indicates that medical students perceived that English proficiency in reading and writing skills was important for class lectures.
Table 5.11

Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Lectures in Class

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures in class (Listening)</td>
<td>95</td>
<td>4.42105</td>
<td>5.0</td>
<td>5.0</td>
<td>0.737721</td>
<td>3.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Lectures in class (Reading)</td>
<td>95</td>
<td>4.02105</td>
<td>4.0</td>
<td>4.0</td>
<td>0.922288</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Lectures in class (Writing)</td>
<td>95</td>
<td>4.06316</td>
<td>4.0</td>
<td>4.0</td>
<td>0.809656</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents     SD= Standard Deviation    Min= Minimum Scale    Max= Maximum Scale*

Table 5.11 presents descriptive statistics of teachers’ perceptions to determine the importance of having a high level of English proficiency for medical students during lectures in class. The mode value for teachers’ perceptions in regard to students’ high level of English proficiency for listening to lectures in class was 5.0. This indicates that teachers perceived that students’ high level of listening proficiency was the most important for lectures in class. The mode value for teachers’ perceptions in regard to students’ high level of proficiency in English reading and writing during class lectures was 4.0. This indicates that teachers perceived that high level of English proficiency in reading and writing skills was important for medical students during their class lectures.

Table 5.12

Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Lectures in Class

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures in class (Listening)</td>
<td>101</td>
<td>4.37624</td>
<td>5.0</td>
<td>5.0</td>
<td>0.810574</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Lectures in class (Reading)</td>
<td>101</td>
<td>4.05941</td>
<td>4.0</td>
<td>4.0</td>
<td>0.810207</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Lectures in class (Writing)</td>
<td>101</td>
<td>3.74257</td>
<td>4.0</td>
<td>4.0</td>
<td>1.1283</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents     SD= Standard Deviation    Min= Minimum Scale    Max= Maximum Scale*

Table 5.12 presents descriptive statistics of trainees’ perceptions to determine the importance of having a high level of English proficiency for medical students during lectures in class. The mode value for trainees’ perceptions in regard to students’ high level of English proficiency for listening to lectures in class was 5.0. This indicates that trainees
perceived that high level of listening proficiency was the most important for medical students during class lectures. The mode value for trainees’ perceptions in regard to students’ high level of English proficiency in reading and writing during class lectures was 4.0. This indicates that trainees perceived that high level of English proficiency in reading and writing skills was important for medical students for lectures in class.

5.3.2. Asking Questions in Class

Table 5.13

Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Asking Questions in Class

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking questions in class (Listening)</td>
<td>203</td>
<td>4.1232</td>
<td>4.0</td>
<td>5.0</td>
<td>0.994231</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Asking questions in class (Speaking)</td>
<td>203</td>
<td>4.3543</td>
<td>5.0</td>
<td>5.0</td>
<td>0.84566</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Asking questions in class (Reading)</td>
<td>203</td>
<td>3.3987</td>
<td>4.0</td>
<td>4.0</td>
<td>1.23439</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Asking questions in class (Writing)</td>
<td>203</td>
<td>3.891</td>
<td>4.0</td>
<td>4.0</td>
<td>1.34564</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  SD= Standard Deviation  Min= Minimum Scale  Max= Maximum Scale

Table 5.13 presents descriptive statistics of students’ perceptions to determine the importance of having a high level of English proficiency for medical students for asking questions in class. The mode value for students’ perceptions in regard to students’ high level of proficiency in English listening and speaking skills was 5.0. This indicates that students perceived that high level of English proficiency in speaking and listening skills was the most important. Whereas mode value for students’ perceptions in regard to high level of English proficiency in reading and writing skills for asking questions in class was 4.0. This indicates that students perceived that high level of English proficiency in reading and writing skills was important for asking questions in class.
Table 5.14

Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Asking Questions in Class

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking questions in class</td>
<td>95</td>
<td>4.4321</td>
<td>5.0</td>
<td>5.0</td>
<td>0.734337</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>(Listening)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asking questions in class</td>
<td>95</td>
<td>4.4531</td>
<td>5.0</td>
<td>5.0</td>
<td>0.745273</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>(Speaking)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asking questions in class</td>
<td>95</td>
<td>4.0415</td>
<td>4.0</td>
<td>4.0</td>
<td>0.945601</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>(Reading)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asking questions in class</td>
<td>95</td>
<td>4.1468</td>
<td>4.0</td>
<td>5.0</td>
<td>0.94567</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>(Writing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents    SD= Standard Deviation    Min= Minimum Scale    Max= Maximum Scale

Table 5.14 presents descriptive statistics of teachers’ perceptions to determine the importance of having a high level of English proficiency for medical students for asking questions in class. The mode value for teachers’ perceptions in regard to importance of students’ high level of proficiency in English listening, speaking and writing skills was 5.0. This indicates that teachers perceived that students’ high level of English proficiency in listening, speaking and writing skills was the most important for asking questions in class. Whereas mode value for teachers’ perceptions in regard to students’ high level of proficiency in English reading skill for asking questions in class was 4.0. This indicates that high level of proficiency of medical students in English reading skill for asking questions in class was important.
Table 5.15
Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Asking Questions in Class

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking questions in class (Listening)</td>
<td>101</td>
<td>4.39614</td>
<td>5.0</td>
<td>5.0</td>
<td>0.88284</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Asking questions in class (Speaking)</td>
<td>101</td>
<td>4.28763</td>
<td>5.0</td>
<td>5.0</td>
<td>1.03884</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Asking questions in class (Reading)</td>
<td>101</td>
<td>4.0485</td>
<td>4.0</td>
<td>4.0</td>
<td>1.04329</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Asking questions in class (Writing)</td>
<td>101</td>
<td>4.0485</td>
<td>4.0</td>
<td>4.0</td>
<td>1.14567</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.15 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for asking questions in the class. The mode value related to trainees’ perceptions in regard to students’ high level of English proficiency in listening and speaking skills for asking questions was 5.0. This indicates that trainees perceived that high level of English proficiency in listening and speaking skills was most important for students to ask questions in class. The mode value for trainees’ perceptions in regard to students’ high level of proficiency in reading and writing was 4.0 for asking questions in class. This indicates that trainees perceived that students’ high level of proficiency in English reading and writing skills for asking questions in class was important.
5.3.3. Answering in Class

Table 5.16

Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Answering in Class

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering in class (Listening)</td>
<td>203</td>
<td>4.57389</td>
<td>4.0</td>
<td>5.0</td>
<td>1.00959</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Speaking)</td>
<td>203</td>
<td>4.57241</td>
<td>4.0</td>
<td>5.0</td>
<td>0.91998</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Reading)</td>
<td>203</td>
<td>4.133</td>
<td>4.0</td>
<td>4.0</td>
<td>0.842582</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Writing)</td>
<td>203</td>
<td>4.47586</td>
<td>4.0</td>
<td>5.0</td>
<td>0.880346</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.16 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency for answering questions in class. The mode value for students’ perceptions related to students’ high level of English proficiency in listening, speaking and writing skills for answering questions was 5.0. This indicates that students perceived that for their answering questions in the class, high level of proficiency in English listening, speaking and writing skills was most important. The mode value for students’ perceptions in regard to high level of proficiency in English reading for answering questions in class was 4.0. This indicates that students perceived that students’ high level of proficiency in English reading was important for answering questions in class.

Table 5.17

Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Answering in Class

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering in class (Listening)</td>
<td>95</td>
<td>4.27895</td>
<td>4.0</td>
<td>5.0</td>
<td>0.945076</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Speaking)</td>
<td>95</td>
<td>4.35263</td>
<td>4.0</td>
<td>5.0</td>
<td>0.86256</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Reading)</td>
<td>95</td>
<td>3.24211</td>
<td>3.0</td>
<td>3.0</td>
<td>0.739692</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Writing)</td>
<td>95</td>
<td>3.29368</td>
<td>3.0</td>
<td>3.0</td>
<td>0.843525</td>
<td>2.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale
Table 5.17 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency for answering questions in the class. The mode value for teachers’ perceptions related to students’ high level of English listening and speaking proficiency for answering questions in class was 5.0. This indicates that teachers perceived that for students’ answering questions in the class, high level of proficiency in English listening and speaking was most important. The mode value for teachers’ perceptions in regard to students’ high level of English reading and writing skills for answering in class was 3.0. This indicates that English reading and writing skills were moderately important for answering in class.

Table 5.18

Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Answering in class

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering in class (Listening)</td>
<td>101</td>
<td>4.31683</td>
<td>5.0</td>
<td>5.0</td>
<td>0.915759</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Speaking)</td>
<td>101</td>
<td>4.44653</td>
<td>5.0</td>
<td>5.0</td>
<td>0.765282</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Reading)</td>
<td>101</td>
<td>3.8901</td>
<td>4.0</td>
<td>5.0</td>
<td>1.04398</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Answering in class (Writing)</td>
<td>101</td>
<td>4.16832</td>
<td>4.0</td>
<td>5.0</td>
<td>0.817271</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note: N= Total Number of Respondents  SD= Standard Deviation  Min= Minimum Scale  Max= Maximum Scale

Table 5.18 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for answering questions in class. The mode value for trainees’ perceptions related to students’ high level of English proficiency in listening, speaking, reading and writing skills for answering in class was 5.0. This indicates that trainees perceived that for answering questions in class, high level of English proficiency was most important for students in listening, speaking, reading and writing skills.
5.3.4. Discussions on Medical Issues/Class Discussions

Table 5.19

Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Medical Issues/Class Discussions

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussions on medical issues/class discussions (Listening)</td>
<td>203</td>
<td>3.99015</td>
<td>4.0</td>
<td>4.0</td>
<td>0.922707</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Discussions on medical issues/class discussions (Speaking)</td>
<td>203</td>
<td>3.71429</td>
<td>4.0</td>
<td>4.0</td>
<td>1.07037</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  SD= Standard Deviation  Min= Minimum Scale  Max= Maximum Scale

Table 5.19 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency for discussions on medical issues/class discussions. The mode value related to students’ perceptions for their high level proficiency in English listening and speaking for medical issues/class discussions was 4.0. This indicates that students perceived that high level of English proficiency in listening and speaking skills was important for medical issues/discussions in the class.

Table 5.20

Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Medical Issues/Class Discussions

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussions on medical issues/class discussions (Listening)</td>
<td>95</td>
<td>4.16842</td>
<td>4.0</td>
<td>4.0</td>
<td>0.767042</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Discussions on medical issues/class discussions (Speaking)</td>
<td>95</td>
<td>4.13684</td>
<td>4.0</td>
<td>4.0</td>
<td>0.793732</td>
<td>2.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  SD= Standard Deviation  Min= Minimum Scale  Max= Maximum Scale

Table 5.20 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency for discussions on medical issues/class discussions. The mode value for teachers’ perceptions related to students’ high
level of proficiency in English listening and speaking skills for discussions on medical issues/class discussions was 4.0. This indicates that teachers perceived that high level of proficiency in English listening and speaking skills was important for students to participate in discussions related to medical issues or other class discussions.

Table 5.21
Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Medical Issues/Class Discussions

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussions on medical issues/class discussions (Listening)</td>
<td>101</td>
<td>4.08911</td>
<td>4.0</td>
<td>4.0</td>
<td>0.980806</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Discussions on medical issues/class discussions (Speaking)</td>
<td>101</td>
<td>4.14851</td>
<td>4.0</td>
<td>5.0</td>
<td>1.02358</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.21 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for discussions on medical issues/class discussions. The mode value related to trainees’ perceptions for students’ high level of proficiency in English speaking was 5.0. This indicates that trainees perceived that high level of English speaking proficiency was most important for medical students for discussions on medical issues/class discussions. Whereas mode value for trainees’ perceptions in regard to students’ high level of English listening proficiency for discussions on medical issues/class discussions was 4.0. This indicates that trainees perceived that high level of English listening proficiency was important for medical students regarding discussions on medical issues/class discussions.
5.3.5. Seminars, Conferences and Presentations

Table 5.22

Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Seminars, Conferences and Presentations

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminars, conferences, presentations (Listening)</td>
<td>203</td>
<td>4.52315</td>
<td>5.0</td>
<td>5.0</td>
<td>0.994841</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Seminars, conferences, presentations (Speaking)</td>
<td>203</td>
<td>4.37438</td>
<td>5.0</td>
<td>5.0</td>
<td>0.877516</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Seminars, conferences, presentations (Reading)</td>
<td>203</td>
<td>4.06946</td>
<td>4.0</td>
<td>4.0</td>
<td>1.23339</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Seminars, conferences, presentations (Writing)</td>
<td>203</td>
<td>4.61232</td>
<td>5.0</td>
<td>5.0</td>
<td>1.27954</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.22 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency for seminars, conferences and presentations. The mode value for students’ perceptions related to their high level of English proficiency in listening, speaking and writing skills for seminars, conferences, and presentations was 5.0. This indicates that for students, high level of proficiency in English listening, speaking and writing skills was most important for participating in seminars, conferences and presentations during their medical studies. The mode value for students’ perceptions in regard to students’ high level of English proficiency in reading skills for seminars, conferences and presentations was 4.0. This indicates that high level of English reading proficiency for students was important for participating in seminars, conferences and presentations during their medical studies.
Table 5.23

Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Seminars, Conferences and Presentations

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminars, conferences,</td>
<td>95</td>
<td>4.44211</td>
<td>5.0</td>
<td>5.0</td>
<td>0.753937</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presentations (Listening)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminars, conferences,</td>
<td>95</td>
<td>4.46316</td>
<td>5.0</td>
<td>5.0</td>
<td>0.755273</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presentations (Speaking)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminars, conferences,</td>
<td>95</td>
<td>4.03158</td>
<td>4.0</td>
<td>4.0</td>
<td>0.983401</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presentations (Reading)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminars, conferences,</td>
<td>95</td>
<td>4.13684</td>
<td>4.0</td>
<td>5.0</td>
<td>0.963267</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presentations (Writing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.23 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency in regard to seminars, conferences and presentations. The mode value related to teachers’ perceptions for students’ high level of proficiency in English listening, speaking and writing for seminars, conferences and presentations was 5.0. This indicates that teachers perceived that high level of proficiency in English listening, speaking and writing skills was most important for students with regard to seminars, conferences and presentations. The mode value for teachers’ perceptions in regard to students’ high level of English proficiency in reading skill for seminars, conferences and presentations was 4.0. This indicates that for seminars, conferences and presentations, proficiency in English reading was important for medical students.
Table 5.24

*Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Seminars, Conferences and Presentations*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminars, conferences, presentations   (Listening)</td>
<td>101</td>
<td>4.38614</td>
<td>5.0</td>
<td>5.0</td>
<td>0.88284</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Seminars, conferences, presentations   (Speaking)</td>
<td>101</td>
<td>4.27723</td>
<td>5.0</td>
<td>5.0</td>
<td>1.04994</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Seminars, conferences, presentations   (Reading)</td>
<td>101</td>
<td>4.0495</td>
<td>4.0</td>
<td>5.0</td>
<td>1.05239</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Seminars, conferences, presentations   (Writing)</td>
<td>101</td>
<td>4.0495</td>
<td>4.0</td>
<td>5.0</td>
<td>1.14347</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.24 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for seminars, conferences and presentations. The mode value related to trainees’ perceptions for students’ high level of proficiency in English listening, speaking, reading and writing for seminars, conferences and presentations was 5.0. This indicates that trainees perceived that high level of proficiency in English listening, speaking, reading and writing skills was most important for medical students for seminars, conferences and presentations during their medical studies.
5.3.6. Presenting Oral Reports

Table 5.25

*Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Presenting Oral Reports*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting oral reports (Listening)</td>
<td>203</td>
<td>3.83251</td>
<td>4.0</td>
<td>4.0</td>
<td>1.17378</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Speaking)</td>
<td>203</td>
<td>3.91626</td>
<td>4.0</td>
<td>4.0</td>
<td>1.03306</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Reading)</td>
<td>203</td>
<td>3.78325</td>
<td>4.0</td>
<td>4.0</td>
<td>0.913223</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Writing)</td>
<td>203</td>
<td>3.5665</td>
<td>4.0</td>
<td>4.0</td>
<td>1.18123</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N = Total Number of Respondents   SD = Standard Deviation   Min = Minimum Scale   Max = Maximum Scale

Table 5.25 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency for presenting oral reports. The mode value related to students’ perceptions for their high level of proficiency in English listening, speaking, reading and writing skills for presenting oral reports was 4.0. This indicates that students perceived that high level of proficiency in English listening, speaking, reading and writing skills was important for presenting oral reports for medical students.

Table 5.26

*Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Presenting Oral Reports*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting oral reports (Listening)</td>
<td>95</td>
<td>4.15789</td>
<td>4.0</td>
<td>5.0</td>
<td>0.992694</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Speaking)</td>
<td>95</td>
<td>4.28421</td>
<td>4.0</td>
<td>5.0</td>
<td>0.753194</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Reading)</td>
<td>95</td>
<td>4.11579</td>
<td>4.0</td>
<td>4.0</td>
<td>0.848818</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Writing)</td>
<td>95</td>
<td>3.87368</td>
<td>4.0</td>
<td>5.0</td>
<td>1.20497</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N = Total Number of Respondents   SD = Standard Deviation   Min = Minimum Scale   Max = Maximum Scale
Table 5.26 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency for presenting oral reports. The mode value related to teachers’ perceptions for students’ high level of proficiency in English listening, speaking and writing skills for presenting oral reports was 5.0. This indicates that teachers perceived that students’ high level of proficiency in English listening, speaking and writing skills was most important for presenting oral reports. The mode value for teachers’ perceptions in regard to students’ high level of proficiency in English reading skills for presenting oral reports was 4.0. This indicates that teachers perceived that high level of English reading proficiency was important for presenting oral reports for medical students.

Table 5.27

Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Presenting Oral Reports

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting oral reports (Listening)</td>
<td>101</td>
<td>3.9604</td>
<td>4.0</td>
<td>4.0</td>
<td>1.05755</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Speaking)</td>
<td>101</td>
<td>4.21782</td>
<td>5.0</td>
<td>5.0</td>
<td>1.04503</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Reading)</td>
<td>101</td>
<td>3.85149</td>
<td>4.0</td>
<td>4.0</td>
<td>1.19487</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Presenting oral reports (Writing)</td>
<td>101</td>
<td>3.85149</td>
<td>4.0</td>
<td>4.0</td>
<td>1.21972</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.27 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for presenting oral reports. The mode value related to trainees’ perceptions for students’ high level of proficiency in English speaking was 5.0 for presenting oral reports. This indicates that trainees perceived that high level of English speaking proficiency was most important for students for presenting oral reports. The mode value for students’ perceptions in regard to students’ high level of proficiency in English listening, reading and writing skills for presenting oral reports was 4.0. This indicates that trainees perceived that high level of English proficiency in listening, reading and writing skills was important for medical students to present oral reports.
5.3.7. Listening to Radio/T.V Programs

Table 5.28

Descriptive Statistics of Combined Groups’ Perceptions about Students’ High Level English Proficiency for Radio/T.V Programs

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.69951</td>
<td>4.0</td>
<td>4.0</td>
<td>1.11398</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.03158</td>
<td>4.0</td>
<td>4.0</td>
<td>0.983401</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.9802</td>
<td>4.0</td>
<td>4.0</td>
<td>1.16602</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.28 presents descriptive statistics of combined groups’ perceptions to determine the importance of students’ high level of English proficiency for listening to Radio/T.V programs. The mode value related to perceptions of students, teachers and trainees in regard to students’ high level of proficiency for listening to Radio/T.V programs was 4.0, respectively. This indicates that students of medicine, teachers of medicine and medical trainees perceived that high level of English proficiency for listening to Radio/T.V programs was important for medical students.
5.3.8. Medical Terminology

Table 5.29

Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Medical Terminology

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical terminology (Listening)</td>
<td>203</td>
<td>4.15764</td>
<td>4.0</td>
<td>5.0</td>
<td>0.967173</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Speaking)</td>
<td>203</td>
<td>4.1133</td>
<td>4.0</td>
<td>5.0</td>
<td>1.00591</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Reading)</td>
<td>203</td>
<td>4.27094</td>
<td>4.0</td>
<td>5.0</td>
<td>0.867734</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Writing)</td>
<td>203</td>
<td>4.28079</td>
<td>4.0</td>
<td>5.0</td>
<td>0.829515</td>
<td>2.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.29 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency for medical terminology. The mode value for students’ perceptions in regard to their English proficiency in listening, speaking, reading and writing for learning medical terminology was 5.0. This indicates that students perceived that high level of English proficiency for listening, speaking, reading and writing skills was most important for learning medical terminology.

Table 5.30

Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Medical Terminology

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical terminology (Listening)</td>
<td>95</td>
<td>4.31579</td>
<td>4.0</td>
<td>5.0</td>
<td>0.789063</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Speaking)</td>
<td>95</td>
<td>4.26316</td>
<td>4.0</td>
<td>5.0</td>
<td>0.840599</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Reading)</td>
<td>95</td>
<td>4.34737</td>
<td>4.0</td>
<td>5.0</td>
<td>0.740449</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Writing)</td>
<td>95</td>
<td>4.22105</td>
<td>4.0</td>
<td>5.0</td>
<td>0.877362</td>
<td>2.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale
Table 5.30 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency for learning medical terminology. The mode value in regard to teachers’ perceptions for students’ high level of proficiency in English listening, speaking, reading and writing skills for learning medical terminology was 5.0. This indicates that teachers perceived that high level of English proficiency for medical students in listening, speaking, reading and writing skills was most important for learning medical terminology.

Table 5.31
Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Medical Terminology

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical terminology (Listening)</td>
<td>101</td>
<td>4.33663</td>
<td>5.0</td>
<td>5.0</td>
<td>0.982621</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Speaking)</td>
<td>101</td>
<td>4.24752</td>
<td>5.0</td>
<td>5.0</td>
<td>1.10821</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Reading)</td>
<td>101</td>
<td>4.19802</td>
<td>5.0</td>
<td>5.0</td>
<td>1.12267</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Medical terminology (Writing)</td>
<td>101</td>
<td>4.23762</td>
<td>5.0</td>
<td>5.0</td>
<td>1.031</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.31 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for learning medical terminology. The mode value for trainees’ perceptions in regard to students’ high level of proficiency in English listening, speaking, reading and writing skills for learning medical terminology was 5.0. This indicates that trainees perceived that high level of English proficiency in listening, speaking, reading and writing skills was most important for medical students to learn medical terminology.
5.3.9. Reading Textbooks/ Resource Books

Table 5.32

Descriptive Statistics of Combined Groups’ Perceptions about Students’ High Level English Proficiency for Reading Textbooks/Resource Books

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>4.17241</td>
<td>4.0</td>
<td>5.0</td>
<td>0.946504</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.41053</td>
<td>5.0</td>
<td>4.0</td>
<td>0.707028</td>
<td>3.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>4.31683</td>
<td>5.0</td>
<td>4.0</td>
<td>0.904773</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.32 presents descriptive statistics of combined groups’ perceptions to determine the importance of students’ high level of English proficiency for reading textbooks/resource books. The mode value for students’ perceptions in regard to students’ high level of English for reading textbooks/resource books was 5.0. This indicates that students perceived that high level of English proficiency for reading textbooks/resource books was most important. Whereas mode value for perceptions of teachers and trainees with regard to students’ high level of English proficiency for reading textbooks/resource books was 4.0, respectively. This indicates that teachers and trainees perceived that high level of English proficiency in reading skill for textbooks/resource books was important for medical students.
5.3.10. Reading Main Idea of Textbooks

Table 5.33

*Descriptive Statistics of Combined Groups’ Perceptions about Students’ High Level English Proficiency for Reading Main idea of Textbooks*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.77833</td>
<td>4.0</td>
<td>5.0</td>
<td>1.15832</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.36842</td>
<td>5.0</td>
<td>4.0</td>
<td>0.758675</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>4.20792</td>
<td>4.0</td>
<td>4.0</td>
<td>0.993145</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.33 presents descriptive statistics of combined groups’ perceptions to determine the importance of students’ high level of English proficiency for reading main idea of textbooks. The mode value for students’ perceptions was 5.0 in regard to high level of English proficiency for reading main idea of textbooks. This indicates that students perceived that high level of English reading proficiency for main idea of textbooks was most important for medical students. While mode value for perceptions of teachers and trainees in regard to students’ high level of reading proficiency for main idea of textbooks was 4.0, respectively. This indicates that teachers and trainees perceived that high level of English proficiency for reading main idea of textbooks was important for medical students.
5.3.11. Reading Textbooks Details

Table 5.34

*Descriptive Statistics of Combined Groups’ Perceptions about Students’ High Level English Proficiency for Reading Textbooks Details*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>4.11823</td>
<td>4.0</td>
<td>5.0</td>
<td>0.86506</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.18947</td>
<td>4.0</td>
<td>4.0</td>
<td>0.828928</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>2.86139</td>
<td>4.0</td>
<td>4.0</td>
<td>2.05927</td>
<td>0.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale*

Table 5.34 presents descriptive statistics of combined groups’ perceptions to determine the importance of students’ high level of English proficiency for reading textbooks in detail. The mode value for students’ perceptions related to their high level of English proficiency for reading textbooks details in medical studies was 5.0. This indicates that students perceived that medical students’ high level of English reading proficiency was most important for reading textbooks in detail. While mode value for perceptions of teachers and trainees related to students’ high level of English proficiency for reading textbooks in detail was 4.0, respectively. This indicates that teachers and trainees perceived that high level of English proficiency was important for medical students for reading textbook details.
5.3.12. Translation of Texts

Table 5.35

*Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Translation of Texts*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation of texts (Reading)</td>
<td>203</td>
<td>3.33005</td>
<td>3.0</td>
<td>3.0</td>
<td>1.09654</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Translation of texts (Writing)</td>
<td>203</td>
<td>3.02956</td>
<td>3.0</td>
<td>3.0</td>
<td>1.16428</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale*

Table 5.35 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency in reading and writing for translation of texts. The mode value for students’ perceptions in regard to their high level of proficiency in English reading and writing skills for translation of texts was 3.0. This indicates that students perceived that high level of proficiency in English reading and writing skills was moderately important for translation of texts for medical students.

Table 5.36

*Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Translation of Texts*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation of texts (Reading)</td>
<td>95</td>
<td>4.10526</td>
<td>4.0</td>
<td>4.0</td>
<td>0.856436</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Translation of texts (Writing)</td>
<td>95</td>
<td>4.18947</td>
<td>4.0</td>
<td>5.0</td>
<td>0.841664</td>
<td>2.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale*

Table 5.36 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency in reading and writing skills for translation of texts. The mode value for teachers’ perceptions in regard to students’ high level of English reading proficiency for translation of texts was 4.0. This indicates that teachers perceived that high level of English reading proficiency was important for translation of texts for medical students. While mode value for teachers’ perceptions in regard to students’ high level of English proficiency in writing for translation of texts was
5.0. This indicates that teachers perceived that students’ high level of English writing proficiency was most important for translating texts.

Table 5.37

Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Translation of Texts

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation of texts (Reading)</td>
<td>101</td>
<td>3.87129</td>
<td>4.0</td>
<td>5.0</td>
<td>1.12839</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Translation of texts (Writing)</td>
<td>101</td>
<td>4.0396</td>
<td>4.0</td>
<td>5.0</td>
<td>0.999208</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.37 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for translation of texts. The mode value for trainees’ perceptions in regard to high level of students’ proficiency in English reading and writing skills for translation of texts was 5.0. This indicates that trainees perceived that high level of proficiency of medical students in English reading and writing skills was most important for translation of texts.
### 5.3.13. Taking Notes from Books

Table 5.38

*Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Taking Notes from Books*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taking notes from books (Reading)</td>
<td>203</td>
<td>3.77833</td>
<td>4.0</td>
<td>4.0</td>
<td>1.01724</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Taking notes from books (Writing)</td>
<td>203</td>
<td>3.92118</td>
<td>4.0</td>
<td>4.0</td>
<td>0.940663</td>
<td>3.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.38 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency in reading and writing skills for taking notes from books. The mode value for students’ perceptions in regard to students’ high level of English proficiency in reading and writing skills for taking notes from books was 4.0. This indicates that students perceived that for students, high level of English proficiency in reading and writing skills was important for taking notes from books.

Table 5.39

*Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Taking Notes from Books*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taking notes from books (Reading)</td>
<td>95</td>
<td>4.08421</td>
<td>4.0</td>
<td>4.0</td>
<td>0.738935</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Taking notes from books (Writing)</td>
<td>95</td>
<td>4.08421</td>
<td>4.0</td>
<td>4.0</td>
<td>0.846308</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.39 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency in reading and writing skills for taking notes from books. The mode value for teachers’ perceptions in regard to students’ high level of proficiency in English reading and writing skills for taking notes from books
was 4.0. This indicates that teachers perceived that students’ high level of English proficiency in reading and writing skills was important to take notes from books.

Table 5.40

*Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Taking Notes from Books*

<table>
<thead>
<tr>
<th>Activity (Reading)</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taking notes from books</td>
<td>101</td>
<td>4.0396</td>
<td>4.0</td>
<td>5.0</td>
<td>0.999208</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Taking notes from books</td>
<td>101</td>
<td>3.92079</td>
<td>4.0</td>
<td>4.0</td>
<td>1.01669</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale*

Table 5.40 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for taking notes from books. The mode value for trainees’ perceptions in regard to students’ high level of proficiency in English reading for taking notes from books was 5.0. This indicates that trainees perceived that high level of English reading proficiency was most important for students to take notes from books. While mode value for trainees’ perceptions in regard to students’ high level of proficiency in English writing for taking notes from books was 4.0. This indicates that trainees perceived that high level of English writing proficiency was important for medical students to take notes from books.

5.3.14. Exams

Table 5.41

*Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Exams*

<table>
<thead>
<tr>
<th>Activity (Listening)</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>203</td>
<td>4.07389</td>
<td>4.0</td>
<td>5.0</td>
<td>1.00959</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Speaking)</td>
<td>203</td>
<td>4.17241</td>
<td>4.0</td>
<td>5.0</td>
<td>0.91998</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Reading)</td>
<td>203</td>
<td>4.133</td>
<td>4.0</td>
<td>4.0</td>
<td>0.842582</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Writing)</td>
<td>203</td>
<td>4.27586</td>
<td>4.0</td>
<td>5.0</td>
<td>0.880346</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale*
Table 5.41 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency for exams. The mode value for students’ perceptions in regard to high level of proficiency in English listening, speaking and writing skills for exams was 5.0. This indicates that students perceived that high level of English proficiency for listening, speaking and writing skills was most important for their exams. The mode value for students’ perceptions in regard to high level of proficiency in English reading was 4.0. This indicates that students perceived that high level of English proficiency in reading skill was important for their exams.

Table 5.42
Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Exams

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams (Listening)</td>
<td>95</td>
<td>4.17895</td>
<td>4.0</td>
<td>5.0</td>
<td>0.945076</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Speaking)</td>
<td>95</td>
<td>4.25263</td>
<td>4.0</td>
<td>5.0</td>
<td>0.86256</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Reading)</td>
<td>95</td>
<td>4.44211</td>
<td>5.0</td>
<td>5.0</td>
<td>0.739692</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Writing)</td>
<td>95</td>
<td>4.27368</td>
<td>4.0</td>
<td>5.0</td>
<td>0.843525</td>
<td>2.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.42 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency for their exams. The mode value for teachers’ perceptions in regard to students’ high level of English proficiency in listening, speaking, reading and writing skills for exams was 5.0. This indicates that teachers perceived that high level of English proficiency in listening, speaking, reading and writing skills was most important for students’ exams in medical studies.
Table 5.43

*Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Exams*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams (Listening)</td>
<td>101</td>
<td>4.31683</td>
<td>5.0</td>
<td>5.0</td>
<td>0.915759</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Speaking)</td>
<td>101</td>
<td>4.34653</td>
<td>5.0</td>
<td>5.0</td>
<td>0.865282</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Reading)</td>
<td>101</td>
<td>3.9901</td>
<td>4.0</td>
<td>5.0</td>
<td>1.04398</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Exams (Writing)</td>
<td>101</td>
<td>4.16832</td>
<td>4.0</td>
<td>5.0</td>
<td>0.917271</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.43 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for their exams. The mode value for trainees’ perceptions in regard to students’ high level of English proficiency in listening, speaking, reading and writing for exams was 5.0. This indicates that trainees perceived that students’ high level of English proficiency in listening, speaking, reading and writing skills was most important for their exams.

5.3.15. Reading Medical Journals/Articles

Table 5.44

*Descriptive Statistics of Combined Groups’ Perceptions about Students’ High Level English Proficiency for Medical Journals/Articles*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.95074</td>
<td>4.0</td>
<td>5.0</td>
<td>1.01354</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.29474</td>
<td>4.0</td>
<td>4.0</td>
<td>0.823507</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>4.24752</td>
<td>4.0</td>
<td>4.0</td>
<td>0.91001</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale
Table 5.44 presents descriptive statistics of combined groups’ perceptions to determine the importance of students’ high level of English proficiency for reading medical journals/articles. The mode value for students’ perceptions in regard to their English proficiency for reading medical journals/articles in medical studies was 5.0. This indicates that students perceived that high level of English reading proficiency was most important to read medical journals/articles. While mode value for perceptions of teachers and trainees related to students’ high level of English proficiency for medical journals/articles was 4.0, respectively. This indicates that teachers and trainees perceived that students’ high level of English proficiency to read medical journals/articles was important.

5.3.16. Graphs/Charts/Tables

Table 5.45

Descriptive Statistics of Students’ Perceptions about High Level English Proficiency for Graphs/Charts/Tables

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphs/charts/Tables (Listening)</td>
<td>203</td>
<td>3.49754</td>
<td>3.0</td>
<td>3.0</td>
<td>1.07802</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Speaking)</td>
<td>203</td>
<td>3.61576</td>
<td>4.0</td>
<td>4.0</td>
<td>1.08552</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Reading)</td>
<td>203</td>
<td>3.63547</td>
<td>4.0</td>
<td>4.0</td>
<td>0.992608</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Writing)</td>
<td>203</td>
<td>3.75369</td>
<td>4.0</td>
<td>4.0</td>
<td>1.11178</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents, SD= Standard Deviation, Min= Minimum Scale, Max= Maximum Scale

Table 5.45 presents descriptive statistics of students’ perceptions to determine the importance of students’ high level of English proficiency for graphs/charts/tables. The mode value for students’ perceptions in regard to their high level of English listening proficiency for graphs/charts/tables was 3.0. This indicates that students perceived that high level of English listening proficiency was moderately important for learning graphs/charts/tables. The mode value for students’ perceptions in regard to their high level of English proficiency in speaking, reading and writing skills was 4.0. This indicates that students perceived that high level of English proficiency in speaking, reading and writing skills was important for learning graphs, charts and tables.
Table 5.46

*Descriptive Statistics of Teachers’ Perceptions about Students’ High Level English Proficiency for Graphs/Charts/Tables*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphs/charts/Tables (Listening)</td>
<td>95</td>
<td>3.72632</td>
<td>4.0</td>
<td>4.0</td>
<td>1.02565</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Speaking)</td>
<td>95</td>
<td>3.73684</td>
<td>4.0</td>
<td>4.0</td>
<td>0.969871</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Reading)</td>
<td>95</td>
<td>3.95789</td>
<td>4.0</td>
<td>4.0</td>
<td>0.898175</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Writing)</td>
<td>95</td>
<td>3.85263</td>
<td>4.0</td>
<td>4.0</td>
<td>1.01025</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.46 presents descriptive statistics of teachers’ perceptions to determine the importance of students’ high level of English proficiency for graphs/charts/tables. The mode value for teachers’ perceptions for students’ high level of English proficiency in listening, speaking, reading and writing skills for learning of graphs/charts/tables was 4.0. This indicates that teachers perceived that high level of English proficiency in listening, speaking, reading and writing skills was important for students to learn graphs/charts/tables during medical studies.

Table 5.47

*Descriptive Statistics of Trainees’ Perceptions about Students’ High Level English Proficiency for Graphs/Charts/Tables*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphs/charts/Tables (Listening)</td>
<td>101</td>
<td>3.30693</td>
<td>3.0</td>
<td>3.0</td>
<td>1.19785</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Speaking)</td>
<td>101</td>
<td>3.29703</td>
<td>3.0</td>
<td>4.0</td>
<td>1.22918</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Reading)</td>
<td>101</td>
<td>3.86139</td>
<td>4.0</td>
<td>4.0</td>
<td>0.990249</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Graphs/charts/Tables (Writing)</td>
<td>101</td>
<td>3.63366</td>
<td>4.0</td>
<td>4.0</td>
<td>1.10202</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.47 presents descriptive statistics of trainees’ perceptions to determine the importance of students’ high level of English proficiency for graphs/charts/tables. The mode value for trainees’ perceptions in regard to students’ high level of proficiency in English listening skill for graphs/charts/tables was 3.0. This indicates that trainees
perceived that students’ high level of English listening proficiency was moderately important for graphs/charts/tables. The mode value for trainees’ perceptions in regard students’ high level of English proficiency in speaking, reading and writing skills was 4.0 for graphs/charts/tables. This indicates that trainees perceived that high level of English proficiency in speaking, reading and writing skills was important for medical students to learn graphs/charts/tables.

5.3.17. Term Projects/Assignments Writing

Table 5.48

Descriptive Statistics of Combined Groups’ Perceptions about Students’ High Level English Proficiency for Term Projects/Assignments Writing

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.85714</td>
<td>4.0</td>
<td>4.0</td>
<td>1.10098</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.17895</td>
<td>4.0</td>
<td>4.0</td>
<td>0.898923</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.9901</td>
<td>4.0</td>
<td>4.0</td>
<td>1.1269</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.48 presents descriptive statistics of combined groups’ perceptions to determine the importance of students’ high level of English proficiency for term projects/assignments writing. The mode value for perceptions of students, teachers and trainees in regard to students’ high level of English proficiency for term projects/assignments writing was 4.0, respectively. This indicates that students, teachers and trainees perceived that high level of English proficiency was important for students to write term projects/assignments writing.
5.4. Medical Administrators’ Perceptions about High Level English Proficiency for Performing Professional Activities

5.4.1. Dealing with Patients

Table 5.49

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealing with patients (Listening)</td>
<td>31</td>
<td>1.90323</td>
<td>1.0</td>
<td>1.0</td>
<td>1.32551</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Dealing with patients (Speaking)</td>
<td>31</td>
<td>2.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.34164</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.49 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English listening and speaking while dealing with patients. The mode value for administrators’ perceptions in regard to high level of proficiency in English listening and speaking while dealing with patients was 1.0. This indicates that administrators perceived that high level of English proficiency in listening and speaking was least important while dealing with patients during their medical job.
5.4.2. Dealing with Colleagues

Table 5.50

Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Dealing with Colleagues

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealing with colleagues (Listening)</td>
<td>31</td>
<td>3.87097</td>
<td>4.0</td>
<td>3.0</td>
<td>0.846244</td>
<td>3.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Dealing with Colleagues (Speaking)</td>
<td>31</td>
<td>3.77419</td>
<td>4.0</td>
<td>3.0</td>
<td>0.920495</td>
<td>2.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents SD= Standard Deviation Min= Minimum Scale Max= Maximum Scale*

Table 5.50 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English listening and speaking while dealing with colleagues. The mode value for administrators’ perceptions in regard to high level of proficiency in English listening and speaking while dealing with colleagues was 3.0. This indicates that administrators perceived that high level of English proficiency in listening and speaking was moderately important while dealing with colleagues during their medical job.

5.4.3. Phone Conversations

Table 5.51

Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Phone Conversations

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone conversations (Listening)</td>
<td>31</td>
<td>3.06452</td>
<td>3.0</td>
<td>3.0</td>
<td>0.89202</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Phone conversations (Speaking)</td>
<td>31</td>
<td>3.25806</td>
<td>3.0</td>
<td>3.0</td>
<td>0.855092</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents SD= Standard Deviation Min= Minimum Scale Max= Maximum Scale*

Table 5.51 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English listening and speaking for phone conversations. The mode value for administrators’ perceptions in regard to high level of proficiency in English listening and speaking for phone conversations was 3.0. This indicates that administrators perceived that high level of
English proficiency in listening and speaking was moderately important for phone conversations during their medical job.

5.4.4. Letters

Table 5.52  
*Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Letters*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letters (Reading)</td>
<td>31</td>
<td>4.51613</td>
<td>5.0</td>
<td>5.0</td>
<td>0.889605</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Letters (Writing)</td>
<td>31</td>
<td>4.58065</td>
<td>5.0</td>
<td>5.0</td>
<td>0.847514</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents; SD= Standard Deviation; Min= Minimum Scale; Max= Maximum Scale*

Table 5.52 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English reading and writing for dealing with letters. The mode value for administrators’ perceptions in regard to high level of proficiency in English reading and writing for dealing with letters was 5.0. This indicates that administrators perceived that high level of English proficiency in reading and writing was most important for dealing with letters during their medical job.
5.4.5. Memos

Table 5.53

*Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Memos*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memos (Reading)</td>
<td>31</td>
<td>4.41935</td>
<td>5.0</td>
<td>5.0</td>
<td>0.885972</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Memos (Writing)</td>
<td>31</td>
<td>4.3871</td>
<td>5.0</td>
<td>5.0</td>
<td>0.882323</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale*

Table 5.53 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English reading and writing for dealing with memos. The mode value for administrators’ perceptions in regard to high level of proficiency in English reading and writing for dealing with memos was 5.0. This indicates that administrators perceived that high level of English proficiency in reading and writing was most important for dealing with memos during their medical job.

5.4.6. Emails and Faxes

Table 5.54

*Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Emails and Faxes*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emails and faxes (Reading)</td>
<td>31</td>
<td>4.45161</td>
<td>5.0</td>
<td>5.0</td>
<td>0.888396</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Emails and faxes (Writing)</td>
<td>31</td>
<td>4.48387</td>
<td>5.0</td>
<td>5.0</td>
<td>0.889605</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale*

Table 5.54 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English reading and writing for dealing with emails and faxes. The mode value for administrators’ perceptions in regard to high level of proficiency in English reading and writing for dealing with emails and faxes was 5.0. This indicates that administrators perceived that high level
of English proficiency in reading and writing was most important for dealing with emails and faxes during their medical job.

5.4.7. Research

Table 5.55
Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Research

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research (Reading)</td>
<td>31</td>
<td>4.6129</td>
<td>5.0</td>
<td>5.0</td>
<td>1.02233</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Research (Writing)</td>
<td>31</td>
<td>4.70968</td>
<td>5.0</td>
<td>5.0</td>
<td>0.82436</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.55 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English reading and writing for research. The mode value for administrators’ perceptions in regard to high level of proficiency in English reading and writing for research was 5.0. This indicates that administrators perceived that high level of English proficiency in reading and writing was most important for research during their medical job.

5.4.8. Forms/Applications

Table 5.56
Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Forms/Applications

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms/applications (Reading)</td>
<td>31</td>
<td>4.19355</td>
<td>4.0</td>
<td>4.0</td>
<td>0.909921</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Forms/applications (Writing)</td>
<td>31</td>
<td>4.35484</td>
<td>4.0</td>
<td>4.0</td>
<td>0.914636</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.56 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English reading and writing for forms/ applications. The mode value for administrators’ perceptions in
regard to high level of proficiency in English reading and writing for forms/applications was 4.0. This indicates that administrators perceived that high level of English proficiency in reading and writing was important for forms/applications during their medical job.

5.4.9. Reports

Table 5.57

*Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Reports*

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reports (Reading)</td>
<td>31</td>
<td>4.32258</td>
<td>4.0</td>
<td>4.0</td>
<td>1.01282</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Reports (Writing)</td>
<td>31</td>
<td>4.41935</td>
<td>4.0</td>
<td>4.0</td>
<td>0.922829</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents  SD= Standard Deviation  Min= Minimum Scale  Max= Maximum Scale

Table 5.57 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English reading and writing for dealing with reports. The mode value for administrators’ perceptions in regard to high level of proficiency in English reading and writing for dealing with reports was 4.0. This indicates that administrators perceived that high level of English proficiency in reading and writing was important for dealing with reports during their medical job.
5.4.10. Using Computers

Table 5.58

Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Using Computers

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using computers (Reading)</td>
<td>31</td>
<td>4.51613</td>
<td>5.0</td>
<td>5.0</td>
<td>0.851311</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Using computers (Writing)</td>
<td>31</td>
<td>4.48387</td>
<td>5.0</td>
<td>5.0</td>
<td>0.889605</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents SD= Standard Deviation Min= Minimum Scale Max= Maximum Scale

Table 5.58 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English reading and writing for using computers. The mode value for administrators’ perceptions in regard to high level of proficiency in English reading and writing for using computers was 5.0. This indicates that administrators perceived that high level of English proficiency in reading and writing was most important for using computers during their medical job.

5.4.11. Meetings

Table 5.59

Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Meetings

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meetings (Listening)</td>
<td>31</td>
<td>3.96774</td>
<td>4.0</td>
<td>4.0</td>
<td>1.07963</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Meetings (Speaking)</td>
<td>31</td>
<td>4.12903</td>
<td>4.0</td>
<td>4.0</td>
<td>0.846244</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Meetings (Reading)</td>
<td>31</td>
<td>4.29032</td>
<td>5.0</td>
<td>5.0</td>
<td>0.937854</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Meetings (Writing)</td>
<td>31</td>
<td>4.35484</td>
<td>5.0</td>
<td>5.0</td>
<td>0.914636</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents SD= Standard Deviation Min= Minimum Scale Max= Maximum Scale

Table 5.59 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English listening, speaking, reading and writing for meetings. The mode value for administrators’ perceptions in regard to high level of proficiency in English listening and speaking for meetings was 4.0, whereas mode value for administrators’ perceptions in English reading and writing for
meetings was 5.0. This indicates that administrators perceived that high level of English proficiency in English listening and speaking was important for meetings, whereas high level of English proficiency in reading and writing was most important for meetings during their medical job.

5.4.12. Instructions/Explanations

Table 5.60
Descriptive Statistics of Medical Administrators’ Perceptions about High Level English Proficiency for Instructions/Explanations

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructions/explanations (Listening)</td>
<td>31</td>
<td>3.87079</td>
<td>4.0</td>
<td>3.0</td>
<td>1.33521</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Instructions/explanations (Speaking)</td>
<td>31</td>
<td>4.19355</td>
<td>4.0</td>
<td>3.0</td>
<td>1.01388</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Instructions/explanations (Reading)</td>
<td>31</td>
<td>4.19355</td>
<td>4.0</td>
<td>5.0</td>
<td>1.07763</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Instructions/explanations (Writing)</td>
<td>31</td>
<td>4.29032</td>
<td>5.0</td>
<td>5.0</td>
<td>1.18866</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min= Minimum Scale     Max= Maximum Scale

Table 5.60 presents descriptive statistics of medical administrators’ perceptions to determine the importance of administrators’ high level of proficiency in English listening, speaking, reading and writing for instructions/explanations. The mode value for administrators’ perceptions in regard to high level of proficiency in English listening and speaking for instructions/explanations was 3.0, whereas mode value for administrators’ perceptions in English reading and writing for instructions/explanations was 5.0. This indicates that administrators perceived that high level of English proficiency in English listening and speaking was moderately important for instructions/explanations, whereas high level of English proficiency in reading and writing was most important for instructions/explanations during their medical job. The overall results indicate that English plays a vital role in day-to-day activities in regard to academic and professional medical fields of medical learners.
### 5.5. Importance of Sufficient Competence in English for Medical Purposes (EMP)

Table 5.61

*Frequencies and Percentages of Combined Groups’ Perceptions to Determine Importance of Sufficient Competence in English for Medical Purposes*

<table>
<thead>
<tr>
<th>R</th>
<th>Extremely important</th>
<th>Important</th>
<th>Somewhat important</th>
<th>Not important</th>
<th>No opinion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>104</td>
<td>51.2</td>
<td>74</td>
<td>36.5</td>
<td>19</td>
<td>9.4</td>
</tr>
<tr>
<td>Teachers</td>
<td>50</td>
<td>52.6</td>
<td>38</td>
<td>40.0</td>
<td>06</td>
<td>6.3</td>
</tr>
<tr>
<td>Trainees</td>
<td>38</td>
<td>37.6</td>
<td>48</td>
<td>47.5</td>
<td>13</td>
<td>12.9</td>
</tr>
<tr>
<td>N</td>
<td>192</td>
<td>+</td>
<td>160</td>
<td>+</td>
<td>38</td>
<td>+</td>
</tr>
</tbody>
</table>

*Note. R= Respondents  N= Total Number of Respondents  F= Frequency  P= Percentage*

Table 5.61 presents frequencies and percentages of combined groups’ perceptions to determine the importance of sufficient competence in English for medical purposes. Thus, in regard to importance of having sufficient competence in English for medical purposes, 104(51.2%) respondents from students of medicine perceived that it was, “extremely important”, and 74(36.5%) respondents believed it was, “important” for them to have sufficient competence in English for medical purposes. 19(9.4%) respondents reported that it was, “somewhat important” and 05(2.5%) respondents believed that it was, “not important” to have sufficient competence in English for medical purposes. There was 01(0.5%) respondent who did not give any opinion in this item.

50(52.6%) respondents from teachers of medicine perceived that it was, “extremely important” and 38(40%) respondents believed it was, “important” for medical students to have sufficient competence in English for medical purposes, 06(6.3%) respondents reported that it was, “somewhat important”, no respondent marked it as, “not important”. There was 01(1.1%) respondent who did not give any opinion in this item.
38(37.6%) respondents from medical trainees reported that it was, “extremely important” and 48(47.5%) respondents believed it was, “important” for medical students to have sufficient competence in English for medical purposes. 13(12.9%) respondents reported that it was, “somewhat important” and 01(1.0%) respondent believed that it was, “not important” for medical students to have sufficient competence in English for medical purposes and 01(0.5%) respondent did not give any opinion in this item.

5.5.1. Comparison of Combined Groups’ Perceptions

Table 5.62

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>1.64532</td>
<td>1.0</td>
<td>1.0</td>
<td>0.791236</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>1.53474</td>
<td>1.0</td>
<td>1.0</td>
<td>0.685312</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>1.80198</td>
<td>2.0</td>
<td>2.0</td>
<td>0.774852</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. R= Respondents   N= Total Number of respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale

Table 5.62 presents descriptive statistics of combined groups’ perceptions in regard to importance of students’ having sufficient competence in English for medical purposes. The mode value for perceptions of students and teachers with regard to importance of students’ having sufficient competence in English for medical purposes was 1.0, respectively. This indicates that students and teachers believed that it was extremely important for students to have sufficient competence in English for medical purposes. The mode value for trainees’ perceptions with regard to importance of students’ having sufficient competence in English for medical purposes was 2.0. This indicates that trainees believed that it was important for students to have sufficient competence in English for medical purposes. The overall results reveal that it was important for medical students to have sufficient competence in English for medical purposes in their studies. Figure 5.9 illustrates percentages of combined groups’ perceptions in regard to the importance of students’ sufficient competence in English for medical purposes.
Figure 5.9. Percentages of combined groups’ perceptions regarding sufficient competence in EMP.

Table 5.63

ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Importance of Students’ Competence in English for Medical Purposes

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1.65574</td>
<td>2</td>
<td>0.827869</td>
<td>1.42</td>
<td>0.2426</td>
</tr>
<tr>
<td>Within groups</td>
<td>230.65</td>
<td>396</td>
<td>0.58245</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>232.306</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * The mean difference is significant at the .05 level. Df= Degree of freedom

The ONE WAY ANOVA Table 5.63 was used to test the equality of average perceptions among medical groups for students’ sufficient competence in English for medical purposes. It is indicated that there was no significant difference among medical groups’ average perceptions regarding students’ competence in English for medical purposes as p-value was greater than 0.05. Figure 5.10 illustrates the details of results in this regard.
Figure 5.10. LSD plot for mean response comparison of medical groups’ perceptions regarding students’ competence in English for medical purposes.
5.6. Importance of English for the Future Careers of Medical Students

Table 5.64

Frequencies and Percentages of Combined Groups’ Perceptions Regarding Importance of English for the Future Careers of Medical Students

<table>
<thead>
<tr>
<th>R</th>
<th>Extremely important</th>
<th>Important</th>
<th>Somewhat important</th>
<th>Not important</th>
<th>No opinion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>95</td>
<td>46.8</td>
<td>82</td>
<td>40.4</td>
<td>22</td>
<td>10.8</td>
</tr>
<tr>
<td>Teachers</td>
<td>51</td>
<td>53.7</td>
<td>39</td>
<td>41.1</td>
<td>04</td>
<td>4.2</td>
</tr>
<tr>
<td>Trainees</td>
<td>46</td>
<td>45.5</td>
<td>49</td>
<td>48.5</td>
<td>04</td>
<td>4.0</td>
</tr>
<tr>
<td>N</td>
<td>192</td>
<td>+</td>
<td>170</td>
<td>+</td>
<td>30</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. R = Respondents  N= Total Number of Respondents  F= Frequency  P= Percentage

Table 5.64 presents frequencies and percentages of combined groups’ perceptions in regard to importance of English for the future careers of medical students in medical field. 95(46.8%) respondents from students of medicine perceived that English was, “extremely important”, 82(40.4%) respondents believed that English was, “important” for their future careers, 22(10.8%) respondents reported that English was, “somewhat important”, 04(2.0%) respondents believed that it was, “not important” and there was no respondent who marked the choice, “no opinion” in this item.

51(53.7%) respondents from teachers of medicine believed that English was, “extremely important”, 39(41.1%) respondents believed that English was, “important” for their future careers of medical students in medical field. 04(4.2%) respondents reported that English was, “somewhat important”, no respondent believed that it was, “not important” and 01(1.1%) respondent marked the choice, “no opinion” in this item.

46(45.5%) respondents from medical trainees perceived that English was, “extremely important” and 49(48.5%) respondents believed that English was, “important” for the future careers of medical students in medical field. 04(4.0%)
respondents reported that English was, “somewhat important”, 01(1.0%) respondent believed that it was, “not important” and 01(1.0%) respondent marked the choice, “no opinion” in this item. Figure 5.11 illustrates the details of results calculated on the basis of majority of responses as perceived in order of importance with reference to the need of English for future careers of medical students.

![Graph](image)

**Figure 5.11.** Combined groups’ perceptions regarding importance of English for future careers of medical students.
Table 5.65

Descriptive Statistics of Combined Groups’ Perceptions Regarding Importance of English for the Future Careers of Medical Students

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>1.6798</td>
<td>2.0</td>
<td>1.0</td>
<td>0.7452</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>1.5368</td>
<td>2.0</td>
<td>1.0</td>
<td>0.6812</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>1.6337</td>
<td>2.0</td>
<td>2.0</td>
<td>0.7031</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

*Note: N= Number of respondents   SD= Standard Deviation   Min= Minimum Scale   Max= Maximum Scale*

Table 5.65 presents descriptive statistics of combined groups’ perceptions related to importance of English for the future careers of medical students in medical field. The mode value for the perceptions of students and teachers in regard to importance of English for future careers of medical students in their medical field was 1.0, respectively. This indicates that students and teachers perceived that English was extremely important for the future careers of medical students in their medical field. Whereas mode value for trainees’ perceptions in regard to importance of English for the future careers of medical students in their medical field was 2.0. This indicates that trainees perceived that English was important for the future careers of medical students in their medical field. The overall results show that majority of respondents reported that English was extremely important for future careers of students in their medical field. Figure 5.12 and Figure 5.13 illustrate the details of results in this regard.
Figure 5.12. Percentages of combined groups’ perceptions regarding importance of English for future careers of medical students.

Figure 5.13. Percentages of combined groups’ perceptions regarding importance of English for future careers of medical students.
Table 5.66

*ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Importance of English for Future Careers of Medical Students*

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1.32265</td>
<td>2</td>
<td>0.661326</td>
<td>1.28</td>
<td>0.2803</td>
</tr>
<tr>
<td>Within groups</td>
<td>205.254</td>
<td>396</td>
<td>0.518318</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>206.576</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 5.66 was used to test the equality of average perceptions among groups regarding importance of English for future careers of medical students in their medical field. It indicates that the results were insignificant as p-value was greater than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were identical. Figure 5.14 illustrates the details of results in this regard.

![Means and 95.0 Percent LSD Intervals](image)

*Figure 5.14.* Mean plot regarding medical groups’ perceptions for importance of English for future careers of medical students.
5.7. English Skills Important for Success in Medical Studies

5.7.1. Students of Medicine

Table 5.67

*Frequencies and Percentages of Students’ Perceptions Regarding English Skills Important for Success in Medical Studies*

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Skills</th>
<th>Responses*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reading to understand English textbooks, resource books and medical journals</td>
<td>194 16.8</td>
</tr>
<tr>
<td>Skill 1</td>
<td>Presenting oral reports</td>
<td>156 13.5</td>
</tr>
<tr>
<td>Skill 2</td>
<td>Carrying on conversations</td>
<td>163 14.1</td>
</tr>
<tr>
<td>Skill 3</td>
<td>Writing research papers</td>
<td>143 12.4</td>
</tr>
<tr>
<td>Skill 4</td>
<td>Understanding class lectures</td>
<td>182 15.7</td>
</tr>
<tr>
<td>Skill 5</td>
<td>Writing examination answers</td>
<td>175 15.1</td>
</tr>
<tr>
<td>Skill 6</td>
<td>Training to have listening/note taking skills</td>
<td>143 12.4</td>
</tr>
<tr>
<td>Skill 7</td>
<td>Others</td>
<td>0 0.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1156* 100.0</td>
</tr>
</tbody>
</table>

*Note. * A respondent may have more than one response in this case. N= Frequency of Responses

Figure 5.15. Percentages of students’ perceptions regarding English skills important for success in medical studies.
5.7. 2. Teachers of Medicine

Table 5.68

*Frequencies and Percentages of Teachers’ Perceptions Regarding English Skills Important for Success in Medical Studies*

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Skills</th>
<th>Responses*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skill 1: Reading to understand English textbooks,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>resource books and medical journals</td>
<td>N=87</td>
</tr>
<tr>
<td></td>
<td>Skill 2: Presenting oral reports</td>
<td>N=81</td>
</tr>
<tr>
<td></td>
<td>Skill 3: Carrying on conversations</td>
<td>N=75</td>
</tr>
<tr>
<td></td>
<td>Skill 4: Writing research papers</td>
<td>N=71</td>
</tr>
<tr>
<td></td>
<td>Skill 5: Understanding class lectures</td>
<td>N=86</td>
</tr>
<tr>
<td></td>
<td>Skill 6: Writing examination answers</td>
<td>N=88</td>
</tr>
<tr>
<td></td>
<td>Skill 7: Training to have listening/note taking</td>
<td>N=75</td>
</tr>
<tr>
<td></td>
<td>skills</td>
<td>N=6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>N=569*</td>
</tr>
</tbody>
</table>

Note. * A respondent may have more than one response in this case.  N= Frequency of Responses

![English Skills for Success in Medical Studies](Image)  

*Figure 5.16.* Percentages of teachers’ perceptions regarding English skills important for success in medical studies.
5.7.3. Medical Trainees

Table 5.69

*Frequencies and Percentages of Medical Trainees’ Perceptions Regarding English Skills Important for Success in Medical Studies*

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Skills</th>
<th>Responses*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Skill 1</td>
<td>Reading to understand English textbooks, resource books</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>and medical journals</td>
<td></td>
</tr>
<tr>
<td>Skill 2</td>
<td>Presenting oral reports</td>
<td>59</td>
</tr>
<tr>
<td>Skill 3</td>
<td>Carrying on conversations</td>
<td>54</td>
</tr>
<tr>
<td>Skill 4</td>
<td>Writing research papers</td>
<td>75</td>
</tr>
<tr>
<td>Skill 5</td>
<td>Understanding class lectures</td>
<td>99</td>
</tr>
<tr>
<td>Skill 6</td>
<td>Writing examination answers</td>
<td>96</td>
</tr>
<tr>
<td>Skill 7</td>
<td>Training to have listening/note taking skills</td>
<td>47</td>
</tr>
<tr>
<td>Skill 8</td>
<td>Others</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>534*</td>
</tr>
</tbody>
</table>

*Note.* *A respondent may have more than one response in this case.*

N= Frequency of Responses

Figure 5.17. Percentages of medical trainees’ perceptions regarding English skills important for success in medical studies.
Figure 5.18. Combined groups’ perceptions based on average percentage for each skill regarding importance of English skills for medical studies.
Table 5.70
Combined Groups’ Perceptions Regarding Importance of English Skills for Medical Studies

<table>
<thead>
<tr>
<th>Item</th>
<th>Group</th>
<th>%C</th>
<th>%NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading to understand English textbooks,</td>
<td>Students</td>
<td>95.6</td>
<td>4.4</td>
</tr>
<tr>
<td>resource books and medical journals</td>
<td>Teachers</td>
<td>91.6</td>
<td>8.4</td>
</tr>
<tr>
<td></td>
<td>Trainees</td>
<td>99</td>
<td>01</td>
</tr>
<tr>
<td>Presenting oral reports</td>
<td>Students</td>
<td>76</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>85.3</td>
<td>14.7</td>
</tr>
<tr>
<td></td>
<td>Trainees</td>
<td>58.4</td>
<td>41.6</td>
</tr>
<tr>
<td>Carrying on conversations</td>
<td>Students</td>
<td>80.3</td>
<td>19.7</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>78.9</td>
<td>21.1</td>
</tr>
<tr>
<td></td>
<td>Trainees</td>
<td>53.5</td>
<td>46.5</td>
</tr>
<tr>
<td>Writing research papers</td>
<td>Students</td>
<td>70.4</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>74.7</td>
<td>25.3</td>
</tr>
<tr>
<td></td>
<td>Trainees</td>
<td>74.3</td>
<td>25.7</td>
</tr>
<tr>
<td>Understanding class lectures</td>
<td>Students</td>
<td>89.7</td>
<td>10.3</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>90.5</td>
<td>9.5</td>
</tr>
<tr>
<td></td>
<td>Trainees</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>Writing examination answers</td>
<td>Students</td>
<td>86.2</td>
<td>13.8</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>92.6</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>Trainees</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>Training to have listening/note taking skills</td>
<td>Students</td>
<td>70.4</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>78.9</td>
<td>21.1</td>
</tr>
<tr>
<td></td>
<td>Trainees</td>
<td>46.5</td>
<td>53.5</td>
</tr>
<tr>
<td>Others</td>
<td>Students</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Teachers</td>
<td>6.3</td>
<td>93.7</td>
</tr>
<tr>
<td></td>
<td>Trainees</td>
<td>04</td>
<td>96</td>
</tr>
</tbody>
</table>

*Note.* %C = Percentages for Checked Items  
%NC = Percentages for Not Checked Items
Table 5.67, Table 5.68 and Table 5.69 present perceptions of students, teachers and trainees with regard to importance of English skills for success of medical students in their medical studies. In addition, Table 5.70 presents an overview of the comparison of combined groups’ perceptions for checked and unchecked items in this regard. The results are discussed in the following:

1. **Reading to understand English textbooks, resource books and medical journals**

   For reading to understand English textbooks, resource books and medical journals, 194(16.8%) responses from students of medicine, 87(15.3%) responses from teachers of medicine and 100(18.7%) responses from medical trainees showed that reading to understand English textbooks, resource books and medical journals was an important skill for success in medical studies.

2. **Presenting oral reports**

   For presenting oral reports, 156(13.5%) responses from students of medicine, 81(14.2%) responses from teachers of medicine and 59(11.0%) responses from medical trainees revealed that presenting oral reports in English was an important skill for success in medical studies.

3. **Carrying on conversations**

   In regard to carrying on conversations, 163(14.1%) responses from students of medicine, 75(13.2%) responses from teachers of medicine and 54(10.1%) responses from medical trainees presented that carrying on conversations in English was important skill for success in medical studies.

4. **Writing research papers**

   For writing research papers, 143(12.4%) responses from students of medicine, 71(12.5%) responses from teachers of medicine and 75(14.0%) responses from medical trainees revealed that writing research papers in English was an important skill for success in medical studies.
5. **Understanding class lectures**

For understanding class lectures, 182(15.7%) responses from students of medicine, 86(15.1%) responses from teachers of medicine and 99(18.5%) responses from medical trainees indicated that English was an important skill for understanding class lectures in order to succeed in medical studies.

6. **Writing examination answers**

For writing examination answers, 175(15.1%) responses from students of medicine, 88(15.5%) responses from teachers of medicine and 96(18.0%) responses from medical trainees indicated that writing examination answers in English was an important skill for success in medical studies.

7. **Training to have listening/ note taking skills**

For training to have listening/note taking skills, 143(12.4%) responses from students of medicine, 75(13.2%) responses from teachers of medicine and 47(8.8%) responses from medical trainees indicated that training to have English listening /note taking skills was important for success in medical studies.

8. **Others (Miscellaneous)**

No response from students of medicine was found in option, “other” for this item. However, 06(1.1%) responses from teachers of medicine indicated that English skills were important for passing international exams/tests, reading and writing in medical journals and for carrying out research projects. 04(0.7%) responses from medical trainees indicated in option, “other” that learning a method to consult medical and general English dictionaries was necessary skill. In addition, respondents mentioned that English skill was important for viva voce, question answer sessions and for understanding abstracts/ references in medical articles and books. Figure 5.15, Figure 5.16, Figure 5.17 and Figure 5.18 illustrate the details of overall results related to English skills important for success in medical studies.
5.8. Conclusion

In this chapter, the students, teachers and trainees provided information in regard to importance of English for medical students in their medical studies. The administrators provided data related to importance of English for their medical job. The students, teachers, trainees and administrators perceived that English was highly important for performing medical studies and job effectively. For ranking of English language skills, English reading skill was ranked as first important skill, English writing skill was ranked as second important skill, English speaking skill was ranked as third important skill whereas English listening skill was ranked as fourth important skill among all four skills by majority of respondents. The results indicate that English plays an important role in various academic and professional activities in the medical field of medical learners. The students, teachers and trainees perceived that it was important for medical students to have high level of English proficiency when performing various academic activities (e.g., lectures in class, asking questions, answering questions, discussions on medical issues/general discussions, participating in seminars/conferences/presentations, presenting oral reports, radio/TV programs, learning medical terminology, reading textbooks/ resource books, reading main idea of textbooks and their details, translation of texts, taking notes from books, exams, reading medical journals and articles, presenting graphs/ charts/tables, writing term projects/assignments etc.). Similarly, English was perceived important by medical administrators for performing many activities (e.g., reading and writing of letters, memos, e-mails/faxes, research, forms/applications, reports, using computers, meetings, instructions/explanations etc.) related to their job. The results reveal that a great majority of respondents believed that English for medical purposes (EMP) was extremely important for medical students. The students, teachers and trainees perceived several English skills (e.g., reading to understand English textbooks, resource books and medical journals, presenting oral reports, carrying on conversations, writing research papers, understanding class lectures writing examination answers, training to have listening/note taking skills etc.) as important for success in medical studies. The overall findings illustrate that English is highly important for medical studies and job.
CHAPTER 6

ANALYSIS OF EXISTING ENGLISH PROFICIENCY OF MEDICAL LEARNERS

This chapter gives a detailed account of information gathered with reference to third subsidiary research question; What is the existing level of proficiency of medical learners in listening, speaking, reading and writing skills of English? Firstly, I will present findings related to existing level of proficiency of medical learners with regard to English language skills in general. Then perceptions of respondents from different groups of medical discourse community related to existing proficiency level of medical learners in regard to different factors of English language to investigate their existing English language proficiency in depth would be highlighted. In addition, this chapter provides information for drawing comparisons regarding medical learners’ perceptions in terms of their English language proficiency before and after joining medical college and similarly investigates about medical learners’ proficiency in English before and after having graduated from medical college.

6.1. Existing Proficiency of Medical Learners in English Skills

In this item, perceptions regarding existing level of English proficiency of medical learners are presented. The students of medicine, medical trainees and medical administrators provided information related to their own existing level of proficiency in English skills whereas teachers of medicine provided data related to the existing level of English proficiency of students of medicine in English skills.
6.1.1. Listening Skill

Table 6.1

Frequencies and Percentages of Combined Groups’ Perceptions Regarding Existing Proficiency Level in English Listening Skill

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>No opinion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>57</td>
<td>28.1</td>
<td>34</td>
<td>16.7</td>
<td>85</td>
<td>41.9</td>
</tr>
<tr>
<td>Teachers</td>
<td>06</td>
<td>6.3</td>
<td>33</td>
<td>34.7</td>
<td>32</td>
<td>33.7</td>
</tr>
<tr>
<td>Trainees</td>
<td>12</td>
<td>11.9</td>
<td>28</td>
<td>27.7</td>
<td>30</td>
<td>29.7</td>
</tr>
<tr>
<td>Administrators</td>
<td>06</td>
<td>19.4</td>
<td>06</td>
<td>19.4</td>
<td>17</td>
<td>54.8</td>
</tr>
<tr>
<td>N</td>
<td>81</td>
<td>+</td>
<td>101</td>
<td>+</td>
<td>164</td>
<td>+</td>
</tr>
</tbody>
</table>

Note: N= Total Number of Respondents  
F= Frequency  
P= Percentage

Table 6.1 presents frequencies and percentages of combined groups’ perceptions in regard to existing proficiency level of medical learners in English listening skill. For describing students’ existing level of proficiency in English listening skill, 57(28.1%) respondents from students of medicine believed that they had “excellent” listening skill, 34(16.7%) respondents believed that they had “good” English listening skill. 85(41.9%) respondents reported that their English listening skill was “fair” and 27(13.3%) respondents reported that their English listening skill was “poor”.

For describing existing level of proficiency of medical students in their English listening skill, 06(6.3%) respondents from teachers of medicine believed that medical students had “excellent” listening skill, 33(34.7%) respondents mentioned that they had “good” English listening skill, 32(33.7%) respondents perceived that English listening skill of medical students was “fair” and 23(24.2%) respondents reported that their English listening skill was “poor” and 01(1.1%) respondent did not give any opinion in this regard.

For describing medical trainees’ existing level of proficiency in English listening skill, 12(11.9%) respondents from medical trainees believed that they had “excellent” listening skill, 28(27.7%) respondents believed that they had “good” English listening skill, 30(29.7%) respondents reported that their English listening skill was “fair” and
29(28.7%) respondents perceived that their English listening skill was “poor” whereas, 02(2.0%) respondents did not give any opinion in this regard.

For describing medical administrators’ existing level of proficiency in English listening skill, 06(19.4%) respondents from medical administrators believed that they had “excellent” listening skill, 06(19.4%) respondents believed that they had “good” English listening skill, 17(54.8%) respondents reported that their English listening skill was “fair” and 02(6.5%) respondents reported that their English listening skill was “poor” whereas no respondent marked the choice, “no opinion” in this regard.

Figure 6.1 illustrates the details of results related to combined groups’ perceptions for existing level of proficiency in English listening skill. Figure 6.2 presents frequencies and percentages of overall responses calculated on the basis of respondents’ adequacy level in English listening skill. It shows that 182(42.3%) respondents believed that medical learners had adequate English listening skill whereas, 245(56.9%) respondents reported that medical learners had inadequate English listening skill.
Figure 6.1. Percentages of combined groups’ perceptions related to existing proficiency level in English listening skill.

Figure 6.2. Medical learners’ overall perceptions regarding their existing adequacy level in English listening skill.
6.1.2. Speaking Skill

Table 6.2

*Frequencies and Percentages of Combined Groups’ Perceptions Regarding Existing Proficiency Level in English Speaking Skill*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>No opinion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>13</td>
<td>6.4</td>
<td>68</td>
<td>33.5</td>
<td>81</td>
<td>39.9</td>
</tr>
<tr>
<td>Teachers</td>
<td>08</td>
<td>8.4</td>
<td>30</td>
<td>31.6</td>
<td>34</td>
<td>35.8</td>
</tr>
<tr>
<td>Trainees</td>
<td>08</td>
<td>7.9</td>
<td>18</td>
<td>17.8</td>
<td>42</td>
<td>41.6</td>
</tr>
<tr>
<td>Administrators</td>
<td>04</td>
<td>12.9</td>
<td>08</td>
<td>25.8</td>
<td>12</td>
<td>38.7</td>
</tr>
<tr>
<td>N</td>
<td>33</td>
<td>+ 124</td>
<td>+</td>
<td>169</td>
<td>+ 102</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  F= Frequency  P= Percentage

Table 6.2 presents frequencies and percentages of combined groups’ perceptions in regard to existing proficiency level of medical learners in English speaking skill. 13(6.4%) respondents from students of medicine believed that they had “excellent” speaking skill, 68(33.5%) respondents believed that they had “good” English speaking skill, 81(39.9%) respondents reported that their English speaking skill was “fair” and 01(0.5%) respondent reported that his/her English speaking skill was “poor”.

For describing existing level of proficiency of medical students in English speaking skill, 08(8.4%) respondents from teachers of medicine believed that medical students had “excellent” speaking skill, 30(31.6%) respondents mentioned that they had “good” English speaking skill, 34(35.8%) respondents believed that their English speaking skill was “fair” and 22(23.2%) respondents mentioned that existing proficiency level of medical students in English speaking skill was “poor” whereas, 01(1.1%) respondent did not give any opinion in this respect.

In regard to trainees’ existing proficiency in English speaking skill, 08(7.9%) respondents from medical trainees’ believed that they had “excellent” speaking skill, 18(17.8%) respondents believed that they had “good” English speaking skill, 42(41.6%)
respondents reported that their English speaking skill was “fair” and 33(32.7%) respondents reported that their English speaking skill was “poor”.

In regard to administrators’ English speaking skill, 04(12.9%) respondents from medical administrators believed that they had “excellent” speaking skill, 08(25.8%) respondents believed that they had “good” English speaking skill, 12(38.7%) respondents reported that their English speaking skill was “fair” and 07(22.6%) respondents perceived that their English speaking skill was “poor”.

Figure 6.3 illustrates the details of results related to combined groups’ perceptions for existing level of proficiency in English speaking skill. Figure 6.4 presents frequencies and percentages of overall responses calculated on the basis of respondents’ adequacy level in English speaking skill. It shows that 157(36.5%) respondents believed that medical learners had adequate English speaking skill whereas, 271(63.02%) respondents reported that medical learners had inadequate English speaking skill.
Figure 6.3. Percentages of combined groups’ perceptions related to existing proficiency level in English speaking skill.

Figure 6.4. Medical learners’ overall perceptions regarding their existing adequacy level in English speaking skill.
### 6.1.3. Reading Skill

Table 6.3

*Frequencies and Percentages of Combined Groups’ Perceptions Regarding Existing Proficiency Level in English Reading Skill*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>No opinion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>38</td>
<td>18.7</td>
<td>106</td>
<td>52.2</td>
<td>49</td>
<td>24.1</td>
</tr>
<tr>
<td>Teachers</td>
<td>14</td>
<td>14.7</td>
<td>63</td>
<td>66.3</td>
<td>16</td>
<td>16.8</td>
</tr>
<tr>
<td>Trainees</td>
<td>15</td>
<td>14.9</td>
<td>35</td>
<td>34.7</td>
<td>40</td>
<td>39.6</td>
</tr>
<tr>
<td>Administrators</td>
<td>08</td>
<td>25.8</td>
<td>18</td>
<td>58.1</td>
<td>05</td>
<td>16.1</td>
</tr>
<tr>
<td>N</td>
<td>75</td>
<td>+</td>
<td>222</td>
<td>+</td>
<td>110</td>
<td>+</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents F= Frequency P= Percentage*

Table 6.3 presents frequencies and percentages of combined groups’ perceptions in regard to existing proficiency level of medical learners in English reading skill. For describing medical students’ English reading skill, 38(18.7%) respondents from students of medicine believed that they had “excellent” reading skill, 106(52.2%) respondents believed that they had “good” English reading skill, 49(24.1%) respondents reported that their English reading skill was “fair”, 07(3.4%) respondents reported that their English reading skill was “poor” and 03(1.5%) respondents did not give any opinion related to their existing level of proficiency in English reading skill.

For existing level of proficiency of medical students in English reading skill, 14(14.7%) respondents from teachers of medicine believed that medical students had “excellent” reading skill, 63(81.1%) respondents believed that medical students had “good” English reading skill, 16(97.9%) respondents reported that their English reading skill was “fair” and 01(1.1%) respondent reported that existing proficiency level of medical students in English reading skill was “poor” whereas 01(1.1%) respondent did not give any opinion in this respect.
For describing trainees’ existing proficiency in English reading skill, 15(14.9%) respondents from medical trainees believed that they had “excellent” reading skill, 35(34.7%) respondents reported that they had “good” English reading skill, 40(39.6%) respondents reported that their English reading skill was “fair” and 11(10.9%) respondents reported that their English reading skill was “poor.

For describing medical administrators’ English reading skill, 08(25.8%) respondents from medical administrators believed that they had “excellent” reading skill, 18(58.1%) respondents believed that they had “good” English reading skill, 05(16.1%) respondents reported that their English reading skill was “fair”. No respondent marked choices “poor” and “no opinion” for this item.

Figure 6.5 illustrates the details of results related to combined groups’ perceptions for existing level of proficiency in English reading skill. Figure 6.6 presents frequencies and percentages of overall responses calculated on the basis of respondents’ adequacy level in English reading skill. It shows that 297(69.06%) respondents believed that medical learners had adequate English reading skill whereas, 129(30%) respondents reported that medical learners had inadequate English reading skill.
Figure 6.5. Percentages of combined groups’ perceptions related to existing proficiency level in English reading skill.

Figure 6.6. Medical learners’ overall perceptions regarding their existing adequacy level in English reading skill.
6.1.4. Writing Skill

Table 6.4

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>No opinion</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>34</td>
<td>16.7</td>
<td>36</td>
<td>17.7</td>
<td>120</td>
<td>59.1</td>
</tr>
<tr>
<td>Teachers</td>
<td>20</td>
<td>21.1</td>
<td>30</td>
<td>31.6</td>
<td>39</td>
<td>41.1</td>
</tr>
<tr>
<td>Trainees</td>
<td>12</td>
<td>11.9</td>
<td>30</td>
<td>29.7</td>
<td>38</td>
<td>37.6</td>
</tr>
<tr>
<td>Administrators</td>
<td>06</td>
<td>19.4</td>
<td>08</td>
<td>25.8</td>
<td>16</td>
<td>51.6</td>
</tr>
<tr>
<td>N</td>
<td>72</td>
<td></td>
<td>104</td>
<td></td>
<td>213</td>
<td>13</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  
F= Frequency  
P= Percentage

Table 6.4 presents frequencies and percentages of combined groups’ perceptions in regard to existing proficiency level of medical learners in English writing skill. For medical students’ existing proficiency in English writing skill, 34(16.7%) respondents from students of medicine believed that they had “excellent” writing skill, 36(17.7%) respondents reported that their English writing skill was “good”, 120(59.1%) respondents believed that they had “fair” English writing skill and 13(6.4%) respondents reported that their English writing skill was “poor”. No respondent marked choice, “no opinion” in this item.

For describing existing proficiency level of medical students in their English writing skill, 20(21.1%) respondents from teachers of medicine believed that they had “excellent” writing skill, 30(31.6%) respondents reported that medical students had “good” English writing skill, 39(41.1%) respondents reported that English writing skill of medical students was “fair”, 04(4.2%) respondents reported that English writing skill of medical students was “poor” and 02(2.1%) respondents did not give any opinion in this regard.
For trainees’ existing proficiency level in English writing skill, 12(11.9%) respondents from medical trainees believed that they had “excellent” writing skill, 30(29.70%) respondents believed that they had “good” English writing skill, 38(37.62%) respondents reported that their English writing skill was “fair”, 20(19.8%) respondents reported that their English writing skill was “poor” and 01(1.0%) respondent did not give any opinion regarding his/her existing level of proficiency in English writing skill.

For medical administrators’ existing proficiency level in English writing skill, 06(19.4%) respondents from medical administrators believed that they had “excellent” writing skill, 08(25.8%) respondents believed that they had “good” English writing skill, 16(51.6%) respondents reported that their English writing skill was “fair”, 01(3.2%) respondent reported that his/her English writing skill was “poor” and no respondent marked choice, “no opinion” for this item.

Figure 6.7 illustrates the details of results related to combined groups’ perceptions for existing level of proficiency in English writing skill. Figure 6.8 presents frequencies and percentages of overall responses calculated on the basis of respondents’ adequacy level in English writing skill. It shows that 176(40.9%) respondents believed that medical learners had adequate writing skill whereas, 251(58.3%) respondents reported that medical learners had inadequate English writing skill.
Figure 6.7. Percentages of combined groups’ perceptions related to existing proficiency level in English writing skill.

Figure 6.8. Medical learners’ overall perceptions regarding their existing adequacy level in English writing skill.
6.2. Respective Group’s Perceptions for Comparison of Proficiency in English Skills

6.2.1. Students’ Perceptions for Comparison of Proficiency in English Skills

Table 6.5

Descriptive Statistics of Students’ Perceptions about their Existing Level of Proficiency in English Skills

<table>
<thead>
<tr>
<th>Skill</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening skill</td>
<td>203</td>
<td>2.45271</td>
<td>3.0</td>
<td>3.0</td>
<td>0.98067</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Speaking skill</td>
<td>203</td>
<td>2.74384</td>
<td>3.0</td>
<td>3.0</td>
<td>0.863678</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Reading skill</td>
<td>203</td>
<td>2.16749</td>
<td>2.0</td>
<td>2.0</td>
<td>0.82145</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Writing skill</td>
<td>203</td>
<td>2.53793</td>
<td>3.0</td>
<td>3.0</td>
<td>0.764749</td>
<td>1.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents SD= Standard Deviation  Min=Minimum Scale Max=Maximum Scale

Table 6.5 presents descriptive statistics of medical students’ perceptions regarding their existing level of proficiency in English listening, speaking, reading and writing skills. The mode value for students’ perceptions in regard to English reading skills was 2.0. This indicates that students perceived that their existing level of proficiency in English reading skill was good but not excellent. The mode value for students’ perceptions in regard to listening, speaking and writing skills was 3.0. This indicates that students’ existing proficiency in English listening, speaking and writing skills was fair yet neither good nor excellent.
6.2.2. Teachers’ Perceptions for Comparison of Proficiency in English Skills

Table 6.6

*Descriptive Statistics of Teachers’ Perceptions about Students’ Existing Level of Proficiency in English Skills*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening skill</td>
<td>95</td>
<td>2.8</td>
<td>3.0</td>
<td>3.0</td>
<td>0.917907</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Speaking skill</td>
<td>95</td>
<td>2.76842</td>
<td>3.0</td>
<td>3.0</td>
<td>0.939133</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Reading skill</td>
<td>95</td>
<td>2.07368</td>
<td>2.0</td>
<td>2.0</td>
<td>0.672279</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Writing skill</td>
<td>95</td>
<td>2.51263</td>
<td>3.0</td>
<td>3.0</td>
<td>0.910558</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note: N= Total Number of Respondents SD= Standard Deviation Min=Minimum Scale Max=Maximum Scale*

Table 6.6 presents descriptive statistics of teachers’ perceptions in regard to students’ existing level of proficiency in English listening, speaking, reading and writing skills. The mode value for teachers’ perceptions regarding students’ existing proficiency in English listening, speaking and writing skills was 3.0. This indicates that teachers perceived that students’ existing proficiency was fair in these skills. Whereas mode value for teachers’ perceptions in regard to existing proficiency level of medical students in English reading skill was 2.0. This indicates that teachers perceived that students’ existing proficiency in English reading skill was good.
6.2.3. Trainees’ Perceptions for Comparison of Proficiency in English Skills

Table 6.7

Descriptive Statistics of Trainees’ Perceptions about their Existing Level of Proficiency in English Skills

<table>
<thead>
<tr>
<th>Skill</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening skill</td>
<td>101</td>
<td>2.79208</td>
<td>3.0</td>
<td>3.0</td>
<td>1.05183</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Speaking skill</td>
<td>101</td>
<td>2.9901</td>
<td>3.0</td>
<td>3.0</td>
<td>0.910989</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Reading skill</td>
<td>101</td>
<td>2.46535</td>
<td>3.0</td>
<td>3.0</td>
<td>0.87823</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Writing skill</td>
<td>101</td>
<td>2.64356</td>
<td>3.0</td>
<td>3.0</td>
<td>0.965237</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents    SD= Standard Deviation    Min=Minimum Scale    Max=Maximum Scale*

Table 6.7 presents descriptive statistics of medical trainees’ perceptions in regard to their existing proficiency level in English listening, speaking, reading and writing skills. The mode value for trainees’ perceptions related to their English listening, speaking, reading and writing skills was 3.0. This indicates that trainees’ existing level of proficiency in English listening, speaking, reading and writing skills was fair yet neither good nor excellent.
6.2.4. Administrators’ Perceptions for Comparison of Proficiency in English Skills

Table 6.8

Descriptive Statistics of Administrators’ Perceptions about their Existing Level of Proficiency in English Skills

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening skill</td>
<td>31</td>
<td>2.49903</td>
<td>3.0</td>
<td>3.0</td>
<td>0.805892</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Speaking skill</td>
<td>31</td>
<td>2.70968</td>
<td>3.0</td>
<td>3.0</td>
<td>0.972747</td>
<td>1.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Reading skill</td>
<td>31</td>
<td>1.90323</td>
<td>2.0</td>
<td>2.0</td>
<td>0.650889</td>
<td>1.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Writing skill</td>
<td>31</td>
<td>2.52903</td>
<td>3.0</td>
<td>3.0</td>
<td>0.763411</td>
<td>1.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  SD= Standard Deviation  Min=Minimum Scale  Max=Maximum Scale

Table 6.8 presents descriptive statistics of medical administrators’ perceptions in regard to their existing proficiency level in English listening, speaking, reading and writing skills. The mode value for medical administrators’ perceptions in regard to their existing proficiency in English listening, speaking and writing skills was 3.0. This indicates that medical administrators’ existing proficiency in English listening, speaking and writing skills was fair. The mode value for administrators’ perceptions related to their existing proficiency in English reading skill was 2.0. This indicates that medical administrators’ existing proficiency level in English reading skill was good yet not excellent.
The overall results reveal that majority of medical learners perceived that English speaking skill was the first most required skill, English writing skill was the second most required skill, English listening skill was third most required skill and English reading skill was the fourth most required skill as analyzed on the basis of majority of respondents’ existing proficiency level in all skills. Figure 6.9 illustrates the details of results calculated on the basis of percentages using scales of adequacy and inadequacy for all responses.
6.3. Comparison of Combined Groups’ Perceptions Regarding Rating Proficiency in English Language Factors

6.3. 1. Vocabulary

Table 6.9

Descriptive Statistics of Combined Groups’ Perceptions Regarding Proficiency in English Vocabulary

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>2.41379</td>
<td>2.0</td>
<td>2.0</td>
<td>1.05126</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.17895</td>
<td>3.0</td>
<td>3.0</td>
<td>0.956267</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.05941</td>
<td>3.0</td>
<td>3.0</td>
<td>1.01805</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents    SD= Standard Deviation     Min=Minimum Scale     Max=Maximum Scale*

Table 6.9 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) for rating proficiency in English vocabulary. The mode value for students’ perceptions in English vocabulary was 2.0. This indicates that medical students perceived that their proficiency in English vocabulary was below average whereas, mode value for teachers’ perceptions regarding students’ proficiency in English vocabulary was 3.0. This indicates that medical teachers perceived that students’ proficiency in English vocabulary was average. The mode value for trainees’ perceptions related to their proficiency in English vocabulary was 3.0. This indicates that trainees rated their proficiency in English vocabulary as average. According to over all results, medical learners’ vocabulary lies between average and below average scales.
Table 6.10

*ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency in English Vocabulary*

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>50.0594</td>
<td>2</td>
<td>25.0297</td>
<td>24.01</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>412.843</td>
<td>396</td>
<td>1.04253</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>462.902</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.10 was used to test the equality of average perceptions among groups regarding existing proficiency in English vocabulary. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.

Table 6.11

*LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Proficiency in English Vocabulary*

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.765154</td>
<td>0.249529</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>*</td>
<td>-0.645613</td>
<td>0.244428</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td></td>
<td>0.119541</td>
<td>0.286899</td>
</tr>
</tbody>
</table>

*Note.* *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 6.11 indicates that pairs (Students - Teachers and Students - Trainees) average perceptions were different. And pair (Teachers – Trainees) average perceptions were insignificant. Figure 6.10 illustrates the details of results in this regard.
Figure 6.10. LSD plot for average response comparison of medical groups’ perceptions regarding proficiency in English vocabulary.

6.3.2. Grammar

Table 6.12
Descriptive Statistics of Combined Groups’ Perceptions Regarding Proficiency in English Grammar

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>2.49261</td>
<td>2.0</td>
<td>2.0</td>
<td>1.12738</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.01053</td>
<td>3.0</td>
<td>3.0</td>
<td>1.03651</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
<td>0.979796</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min=Minimum Scale   Max=Maximum Scale
Table 6.12 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) related to proficiency in English grammar. The mode value for students’ perceptions regarding English grammar was 2.0. This indicates that medical students perceived that their proficiency in English grammar was below average. The mode value for teachers’ perceptions in regard to students’ existing proficiency level in English grammar was 3.0. This indicates that medical teachers perceived that students’ existing level of proficiency in English grammar was average. Similarly, the mode value for trainees’ perceptions related to their existing proficiency level in English grammar was 3.0. This indicates that medical trainees perceived that their existing level of proficiency in English grammar was average.

Table 6.13

ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency in English Grammar

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>26.1964</td>
<td>2</td>
<td>13.0982</td>
<td>11.43</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>453.728</td>
<td>396</td>
<td>1.14578</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>479.925</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.13 was used to test the equality of average perceptions among groups regarding existing proficiency in English grammar. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.
Table 6.14
LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Proficiency in English Grammar

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.517915</td>
<td>0.261594</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>*</td>
<td>-0.507389</td>
<td>0.256246</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td></td>
<td>0.0105263</td>
<td>0.30077</td>
</tr>
</tbody>
</table>

Note. *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding their average perceptions. Table 6.14 indicates that pairs (Students - Teachers and Students - Trainees) average perceptions were different. And pair (Teachers – Trainees) average perceptions were insignificant. Figure 6.11 illustrates the details of results in this regard.

![Means and 95.0 Percent LSD Intervals](image)

*Figure 6.11.* LSD plots for average response comparison of medical groups’ perceptions regarding proficiency in English grammar.
6.3.3. Listening Comprehension

Table 6.15

Descriptive Statistics of Combined Groups’ Perceptions Regarding Proficiency in English Listening Comprehension

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>2.72414</td>
<td>3.0</td>
<td>3.0</td>
<td>1.27534</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.44211</td>
<td>3.0</td>
<td>3.0</td>
<td>0.883848</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.25743</td>
<td>4.0</td>
<td>4.0</td>
<td>1.11044</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Note.** N= Total Number of Respondents  SD= Standard Deviation  Min=Minimum Scale  Max=Maximum Scale

Table 6.15 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) for rating existing English proficiency in listening comprehension. The mode value for the perceptions of students and teachers regarding listening comprehension was 3.0, respectively. This indicates that both students and teachers perceived that medical students’ proficiency in English listening comprehension was average. Whereas mode value for trainees’ perceptions in regard to English listening comprehension was 4.0. This indicates that trainees perceived that trainees’ proficiency in English listening comprehension was very good yet not excellent. The overall results reveal that English proficiency of medical learners in English listening comprehension was not excellent.
Table 6.16

ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency in English Listening Comprehension

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>40.3489</td>
<td>2</td>
<td>20.1744</td>
<td>15.21</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>525.29</td>
<td>396</td>
<td>1.32649</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>565.639</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.16 was used to test the equality of average perceptions among groups regarding existing proficiency in English listening comprehension. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical in proportion to their average responses.

Table 6.17

LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Proficiency in English Listening Comprehension

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.717967</td>
<td>0.281468</td>
</tr>
<tr>
<td>Students - Trainees’</td>
<td>*</td>
<td>-0.533288</td>
<td>0.275714</td>
</tr>
<tr>
<td>Teachers - Trainees’</td>
<td></td>
<td>0.18468</td>
<td>0.32362</td>
</tr>
</tbody>
</table>

Note. *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 6.17 indicates that pairs (Students - Teachers and Students - Trainees) average perceptions were different. And pair (Teachers – Trainees) average perceptions were insignificant. Figure 6.12 illustrates the details of results in this regard.
Figure 6.12. LSD plot for average response comparison of medical groups’ perceptions regarding proficiency in English listening comprehension.
6.3.4. Reading Speed

Table 6.18

Descriptive Statistics of Combined Groups’ Perceptions Regarding Proficiency in English Reading Speed

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>2.93103</td>
<td>2.0</td>
<td>2.0</td>
<td>1.2167</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.68421</td>
<td>3.0</td>
<td>3.0</td>
<td>0.775464</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.51</td>
<td>3.0</td>
<td>3.0</td>
<td>1.17632</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents SD= Standard Deviation Min=Minimum Scale Max=Maximum Scale

Table 6.18 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) for rating proficiency in regard to reading speed in English. The mode value for medical students’ perceptions regarding English reading speed was 2.0. This indicates that students perceived that their proficiency in English reading speed was below average. The mode value for perceptions of teachers about students in regard to their proficiency in English reading speed was 3.0. This reveals that teachers perceived that students’ proficiency in English reading speed was average. Similarly, the mode value for perceptions of trainees in regard to their proficiency in English reading speed was 3.0. This indicates that trainees perceived that their proficiency in English reading speed was average.
Table 6.19

**ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency in English Reading Speed**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>45.3085</td>
<td>2</td>
<td>22.6542</td>
<td>18.17</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>492.551</td>
<td>395</td>
<td>1.24696</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>537.859</td>
<td>397</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.19 was used to test the equality of average perceptions among groups regarding existing proficiency level for English reading speed. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.

Table 6.20

**LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Proficiency in English Reading Speed**

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.753176</td>
<td>0.272902</td>
</tr>
<tr>
<td>Students - Trainees’</td>
<td>*</td>
<td>-0.578966</td>
<td>0.268214</td>
</tr>
<tr>
<td>Teachers - Trainees’</td>
<td></td>
<td>0.174211</td>
<td>0.314531</td>
</tr>
</tbody>
</table>

*Note.* *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 6.20 indicates that pairs (Students - Teachers and Students - Trainees) average perceptions were different. And pair (Teachers – Trainees) average perceptions were insignificant. Figure 6.13 illustrates the details of results in this regard.
Figure 6.13. LSD plot for average response comparison of medical groups’ perceptions regarding proficiency in English for reading speed.
### 6.3.5. Pronunciation

Table 6.21

*Descriptive Statistics of Combined Groups' Perceptions Regarding Proficiency in English Pronunciation*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>2.59113</td>
<td>2.0</td>
<td>2.0</td>
<td>1.2086</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.23158</td>
<td>3.0</td>
<td>3.0</td>
<td>0.961522</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.38614</td>
<td>4.0</td>
<td>3.0</td>
<td>1.04853</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents  
SD= Standard Deviation  
Min=Minimum Scale  
Max=Maximum Scale

Table 6.21 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) for rating proficiency in English pronunciation. The mode value for students’ perceptions in regard to their English pronunciation was 2.0. This indicates that medical students perceived that their proficiency in English pronunciation was below average. The mode value for teachers’ perceptions about students’ proficiency in English pronunciation was 3.0. This indicates that teachers perceived that the medical students’ proficiency in English pronunciation was average. Similarly, the mode value for trainees’ perceptions in regard to their English pronunciation was 3.0. This shows that medical trainees perceived that their proficiency in English pronunciation was average.
Table 6.22

ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency in English Pronunciation

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>52.8771</td>
<td>2</td>
<td>26.4385</td>
<td>21.28</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>491.91</td>
<td>396</td>
<td>1.2422</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>544.787</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.22 was used to test the equality of average perceptions among groups for existing proficiency level in English pronunciation. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.

Table 6.23

LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Proficiency in English Pronunciation

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.640446</td>
<td>0.272378</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>*</td>
<td>-0.795006</td>
<td>0.26681</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td></td>
<td>-0.15456</td>
<td>0.313169</td>
</tr>
</tbody>
</table>

Note. *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 6.23 indicates that pairs (Students - Teachers and Students - Trainees) average perceptions were different. And pair (Teachers – Trainees) average perceptions were insignificant. Figure 6.14 illustrates the details of results in this regard.
Figure 6.14. LSD plot for average response comparison of medical groups’ perceptions regarding proficiency in English pronunciation.
6.3.6. Comprehension of Reading Materials in General

Table 6.24

*Descriptive Statistics of Combined Groups’ Perceptions Regarding Proficiency in English Reading Materials in General*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>2.75862</td>
<td>2.0</td>
<td>2.0</td>
<td>1.1756</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.29474</td>
<td>2.0</td>
<td>2.0</td>
<td>0.955095</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.29703</td>
<td>3.0</td>
<td>3.0</td>
<td>1.18781</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents  SD= Standard Deviation  Min=Minimum Scale  Max=Maximum Scale*

Table 6.24 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) for rating medical learners’ existing proficiency level in regard to comprehension of reading English materials in general. The mode value for perceptions of medical students and teachers regarding English proficiency of medical students for comprehension of reading materials in general was 2.0, respectively. This indicates that both students and teachers perceived that existing proficiency of medical students for comprehension of reading materials in general was below average. The mode value for trainees’ perceptions in regard to their existing English proficiency for comprehension of reading materials in general was 3.0. This indicates that medical trainees perceived that their existing proficiency in English for comprehension of reading materials in general was average.
Title 6.25

ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency in English Reading Materials in General

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>28.7881</td>
<td>2</td>
<td>14.3941</td>
<td>11.26</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>506.009</td>
<td>396</td>
<td>1.2778</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>534.797</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.25 was used to test the equality of average perceptions among groups regarding existing level of English proficiency for comprehension of reading materials in general. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.

Table 6.26

LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Proficiency in English Comprehension of Reading Materials in General

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.536116</td>
<td>0.276254</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>*</td>
<td>-0.538409</td>
<td>0.270606</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td></td>
<td>-0.00229286</td>
<td>0.317625</td>
</tr>
</tbody>
</table>

Note. *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 6.26 indicates that pairs (Students - Teachers and Students - Trainees) average perceptions were different. And pair (Teachers – Trainees) average perceptions were insignificant. Figure 6.15 illustrates the details of results in this regard.
Figure 6.15. LSD plot for average response comparison of medical groups’ perceptions regarding proficiency in English for comprehension of reading materials in general.
6.3.7. Comprehension of Reading Materials in Medicine

Table 6.27

Descriptive Statistics of Combined Groups’ Perceptions Regarding Proficiency in English Reading Materials in Medicine

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.33498</td>
<td>3.0</td>
<td>3.0</td>
<td>1.03221</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.41053</td>
<td>3.0</td>
<td>3.0</td>
<td>0.928219</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.26733</td>
<td>4.0</td>
<td>4.0</td>
<td>1.12153</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation     Min=Minimum Scale     Max=Maximum Scale

Table 6.27 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) regarding proficiency in English reading materials in medicine. The mode value for perceptions of medical students and teachers in regard to students’ existing proficiency level in English reading materials in medicine was 3.0, respectively. This indicates that both students and teachers perceived that students’ existing proficiency in English reading materials in medicine was average. The mode value for trainees’ perceptions with regard to their existing proficiency in English reading materials in medicine was 4.0. This indicates that trainees perceived that their existing proficiency level in English reading materials in medicine was very good.

Table 6.28

ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency in English Reading Materials in Medicine

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1.00417</td>
<td>2</td>
<td>0.502083</td>
<td>0.47</td>
<td>0.6246</td>
</tr>
<tr>
<td>Within groups</td>
<td>421.993</td>
<td>396</td>
<td>1.06564</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>422.997</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.28 was used to test the equality of average perceptions among groups regarding proficiency in English reading materials in medicine. It indicates that the results were insignificant as p-value was greater than 0.05. This concludes that the average perceptions of medical students, teachers and trainees
were identical. Figure 6.16 illustrates the details of results in this regard and thus there was no need to compute LSD for pair wise comparison of average responses.

\[\text{Means and 95.0 Percent LSD Intervals}\]

\[\begin{array}{ccc}
\text{Mean} & 3.1 & 3.2 & 3.3 & 3.4 & 3.5 & 3.6 \\
\text{Mean} & 3.1 & 3.2 & 3.3 & 3.4 & 3.5 & 3.6 \\
\end{array}\]

\[\text{Students} \quad \text{Teachers} \quad \text{Trainees}\]

*Figure 6.16.* LSD plot for average response comparison of medical groups’ perceptions regarding proficiency in English for comprehension of reading materials in medicine.
6.3.8. Use of English in Written Exams

Table 6.29

Descriptive Statistics of Combined Groups’ Perceptions Regarding Proficiency for Use of English in Written Exams

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.15271</td>
<td>3.0</td>
<td>3.0</td>
<td>0.955096</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.49474</td>
<td>3.0</td>
<td>3.0</td>
<td>0.987945</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.33663</td>
<td>4.0</td>
<td>4.0</td>
<td>1.15998</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents    SD= Standard Deviation     Min=Minimum Scale     Max=Maximum Scale

Table 6.29 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) for rating English proficiency in regard to use of English in written exams. The mode value for perceptions of medical students and teachers about students’ proficiency in English written exams was 3.0, respectively. This indicates that students and teachers perceived that medical students’ proficiency in English for written exams was average. The mode value for trainees’ perceptions in regard to their proficiency for the use of English in written exams was 4.0. This indicates that trainees perceived that their proficiency in English for written exams was very good.
Table 6.30
ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency for Use of English in Written Exams

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>7.99357</td>
<td>2</td>
<td>3.99678</td>
<td>3.85</td>
<td>0.0220</td>
</tr>
<tr>
<td>Within groups</td>
<td>410.568</td>
<td>396</td>
<td>1.03679</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>418.561</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.30 was used to test the equality of average perceptions among groups regarding existing level of English proficiency for use of English in written exams. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.

Table 6.31
LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Proficiency for Use of English in Written Exams

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.342027</td>
<td>0.248841</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td></td>
<td>-0.183924</td>
<td>0.243754</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td></td>
<td>0.158103</td>
<td>0.286107</td>
</tr>
</tbody>
</table>

*Note.* *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 6.31 indicates that pair (Students - Teachers) average perceptions were different. And pairs (Teachers – Trainees and Students - Trainees) average perceptions were insignificant. Figure 6.17 illustrates the details of results in this regard.
Means and 95.0 Percent LSD Intervals

Figure 6.17. LSD plot for average response comparison of medical groups’ perceptions regarding English proficiency in written exams.
6.3.9. Understanding of Medical Terminology

Table 6.32

Descriptive Statistics of Combined Groups' Perceptions Regarding Proficiency in English for Understanding Medical Terminology

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.03448</td>
<td>3.0</td>
<td>3.0</td>
<td>1.05013</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>2.49895</td>
<td>2.0</td>
<td>2.0</td>
<td>0.962918</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.49505</td>
<td>4.0</td>
<td>4.0</td>
<td>1.09201</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents  SD= Standard Deviation  Min=Minimum Scale  Max=Maximum Scale*

Table 6.32 presents descriptive statistics of combined groups’ perceptions (i.e., students, teachers and trainees) regarding proficiency in English for understanding medical terminology. The mode value for students’ perceptions related to their existing level of English proficiency for understanding medical terminology was 3.0. This indicates that medical students perceived that their proficiency in English for understanding medical terminology was average. The mode value for teachers’ perceptions in regard to students’ existing level of English proficiency for understanding medical terminology was 2.0. This indicates that teachers perceived that students’ existing level of proficiency in English for understanding medical terminology was below average. The mode value for trainees’ perceptions in regard to their existing proficiency level for understanding medical terminology was 4.0. This indicates that medical trainees perceived that their existing proficiency level in English for understanding medical terminology was very good yet not excellent.
Table 6.33

**ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Proficiency in English for Understanding Medical Terminology**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>25.3974</td>
<td>2</td>
<td>12.6987</td>
<td>11.72</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>429.164</td>
<td>396</td>
<td>1.08375</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>454.561</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The mean difference is significant at the .05 level. Df= Degree of Freedom

The ONE WAY ANOVA Table 6.33 was used to test the equality of average perceptions among groups regarding English proficiency for understanding medical terminology. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.

Table 6.34

**LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Proficiency in English for Understanding Medical Terminology**

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.544465</td>
<td>0.254414</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>*</td>
<td>-0.460567</td>
<td>0.249213</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td>0.0838979</td>
<td>0.292515</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 6.34 indicates that pair (Students - Teachers) average perceptions was different. And pairs (Teachers – Trainees and Students - Trainees) average perceptions were insignificant. Figure 6.18 illustrates the details of results in this regard.
Figure 6.18. LSD plot for average response comparison of medical groups’ perceptions regarding proficiency in English for understanding medical terminology.
6.4. Relevancy of English Language Courses Before Medical College

Table 6.35

<table>
<thead>
<tr>
<th>Relevancy</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely</td>
<td>06</td>
<td>2.95</td>
</tr>
<tr>
<td>A lot</td>
<td>30</td>
<td>14.7</td>
</tr>
<tr>
<td>Somewhat</td>
<td>48</td>
<td>23.6</td>
</tr>
<tr>
<td>A little</td>
<td>54</td>
<td>26.6</td>
</tr>
<tr>
<td>Not relevant at all</td>
<td>65</td>
<td>32.01</td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 6.35 presents frequencies and percentages of medical students’ perceptions in regard to relevancy of English language courses to the needs of medical students before entering medical college. 06(2.95%) respondents from students of medicine reported that the courses were “extremely” relevant, 30(14.7%) respondents reported that the courses were “a lot relevant”, 48(23.4%) respondents reported that English language courses were “somewhat relevant”, 54(26.6%) respondents reported that the courses were “a little” relevant, and 65(32.1%) respondents reported that the English language courses were “not relevant at all” before entering medical college.

The overall perceptions of respondents indicate that majority of students believed that the courses of English taught to them before joining medical college were not relevant to their needs of language related to medical studies. Figure 6.19 and Figure 6.20 illustrate the details of percentages of students’ perceptions regarding relevancy of English courses to the needs of medical students before entering medical college.
Figure 6.19. Percentages of students’ perceptions regarding relevancy of English courses before medical college.

Figure 6.20. Overall percentages for comparison between scales of relevancy regarding students’ perceptions for English courses before medical college.
6.5. English Proficiency Before and After Joining Medical College

Table 6.36

*Frequencies and Percentages of Students’ Perceptions Regarding Comparison of English Language Proficiency Before and After Joining Medical College*

<table>
<thead>
<tr>
<th>Proficiency</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much worse</td>
<td>44</td>
<td>21.7</td>
</tr>
<tr>
<td>Somewhat worse</td>
<td>57</td>
<td>28.1</td>
</tr>
<tr>
<td>About the same</td>
<td>61</td>
<td>30.0</td>
</tr>
<tr>
<td>Somewhat better</td>
<td>34</td>
<td>16.7</td>
</tr>
<tr>
<td>Much better</td>
<td>07</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>203</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 6.36 presents frequencies and percentages of medical students’ perceptions in regard to comparison of medical students’ English language proficiency before and after they have joined medical college. 44(21.7%) respondents from students of medicine believed that their proficiency became, “much worse”, 57(28.1%) respondents mentioned that their proficiency in English became “somewhat worse”, 61(30.0%) respondents reported it as, “about the same”, 34(16.7%) respondents reported that their proficiency in English language became “somewhat better”, and 07(3.4%) respondents reported that their proficiency in English became “much better” after joining medical college as compared to their proficiency before joining medical college. Figure 6.21 illustrates the details of results in this regard.

The overall results indicate that 101(49.7%) respondents believed that their proficiency became worse, 61(30%) respondents perceived that their proficiency remained about the same, 41(20.1%) respondents believed that their proficiency became better. The majority of respondents perceived that their proficiency in English became worse in regard to their comparison before and after they had joined medical college. Figure 6.22 illustrates the details of percentages of students’ perceptions regarding comparison of English language proficiency before and after joining medical college.
Figure 6.21. Students’ perceptions regarding comparison of English proficiency before and after joining medical college.

Figure 6.22. Percentages of students’ perceptions regarding comparison of English language proficiency before and after joining medical college.
6.6. English Proficiency Before and After Graduating from Medical College

Table 6.37

Frequencies and Percentages of Trainees’ Perceptions Regarding Comparison of English Language Proficiency

<table>
<thead>
<tr>
<th>Proficiency</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much worse</td>
<td>12</td>
<td>11.8</td>
</tr>
<tr>
<td>Somewhat worse</td>
<td>29</td>
<td>28.7</td>
</tr>
<tr>
<td>About the same</td>
<td>34</td>
<td>33.6</td>
</tr>
<tr>
<td>Somewhat better</td>
<td>16</td>
<td>15.8</td>
</tr>
<tr>
<td>Much better</td>
<td>10</td>
<td>9.9</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 6.37 presents frequencies and percentages of trainees’ perceptions in regard to rating their knowledge of English before and after having graduated from medical college. 12(11.8%) respondents from medical trainees rated their knowledge of English after having graduated from medical college as “much worse”, 29(28.7%) respondents rated it as “somewhat worse”, 34(33.6%) respondents rated their English language knowledge as “about the same”, 16(15.8%) respondents rated it as “somewhat better”, and 10(9.9%) respondents rated their knowledge of English as “much better” as compared to before and after having graduated from medical college. Figure 6.23 illustrates the details of results in this regard.

The overall results for this item indicate that majority of respondents believed that their proficiency in English became somewhat worse after having graduated from medical college. 41(40.5%) respondents believed that their proficiency in English became worse, 34(33.6%) respondents perceived that their proficiency in English remained about the same whereas, 26(25.7%) respondents believed that their proficiency in English became much better in regard to their comparison before and after they had graduated from medical college. Figure 6.24 illustrates the details of percentages of trainees’ perceptions indicating that majority of respondents from medical trainees perceived that their proficiency became worse.
Figure 6.23. Trainees’ perceptions regarding comparison of English proficiency before and after graduating from medical college.

Figure 6.24. Percentages of trainees’ perceptions regarding comparison of English language proficiency before and after graduating from medical college.
6.7. Conclusion

In this chapter, I have reported detailed findings in regard to third subsidiary question and its related items in all questionnaires. The overall results revealed that existing proficiency level of medical learners in all English skills was not excellent. The majority of respondents perceived that medical learners’ existing proficiency in English reading skill was good whereas the existing proficiency of medical learners in English listening, speaking and writing skills was fair. These results indicate that English writing skill was the most required skill, English speaking skill was the second most required skill, English listening skill was the third most required skill whereas English reading skill was the fourth most required skill. The calculations in this regard, were made on the basis of majority of responses for each skill. The medical learners perceived that their existing proficiency in various English factors (e.g., vocabulary, grammar, listening compression, reading speed, pronunciation, comprehension of reading materials both in general and medicine, using English in written exams, understanding medical terminology etc.) was not excellent but average. Similarly, the majority of respondents believed that the courses of English taught to them before joining medical college were not much relevant to their English language needs related to medical studies. In addition, a large number of medical students perceived that their proficiency became worse in regard to the comparison of their English language proficiency before and after they had joined medical college. In the similar continuum, majority of medical trainees perceived that their proficiency became worse after having graduated from medical college. A comparison was drawn in order to investigate trainees’ proficiency in English before and after they had graduated from medical college. It is further analysed that, medical learners’ proficiency in English was twice worsened as compared to their English proficiency before joining medical college and thus after having graduated from it while they had spent five years of MBBS in a medical college without studying any course/s of English. Hence it can be concluded that the existing proficiency level of medical learners in English language skills is not up to the mark with respect to various perspectives therefore it needs to be improved.
CHAPTER 7

ANALYSIS OF OPINIONS ABOUT LEARNING ENGLISH AT MEDICAL COLLEGE

In this chapter, I will present detailed analysis of the data gathered related to the fourth subsidiary research question; What are the perceptions of different groups of medical discourse community regarding learning English at medical college? The data were gathered from students of medicine, teachers of medicine and medical trainees. This chapter serves as mainstay for the importance of recommendation of course of English for the medical students studying in medical colleges of Pakistan.

7.1. Importance of General Purposes English (GPE)

Table 7.1
Frequencies and Percentages of Combined Groups’ Perceptions Regarding Importance of GPE

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>12</td>
<td>5.9</td>
<td>13</td>
<td>6.4</td>
<td>15</td>
<td>7.4</td>
</tr>
<tr>
<td>Teachers</td>
<td>01</td>
<td>1.1</td>
<td>03</td>
<td>3.2</td>
<td>05</td>
<td>5.3</td>
</tr>
<tr>
<td>Trainees</td>
<td>09</td>
<td>8.9</td>
<td>06</td>
<td>5.9</td>
<td>11</td>
<td>10.9</td>
</tr>
<tr>
<td>N</td>
<td>22 +</td>
<td>22 +</td>
<td>31 +</td>
<td>169 +</td>
<td>155 =</td>
<td>399</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents F= Frequency P= Percentage

Table 7.1 provides frequencies and percentages of combined groups’ perceptions in regard to the statement: General purposes English is important for medical students. 12(5.9%) respondents from students of medicine “strongly disagreed” and 13(6.4%) respondents “disagreed” that general purpose English (GPE) was important for medical students, 15(17.4%) respondents were “not sure” that GPE was important for medical
students. 82(40.4%) respondents “agreed” and 81(39.9%) respondents “strongly agreed” that GPE was important for medical students.

For this item, 01(1.1%) respondent from teachers of medicine “strongly disagreed” and 03(3.2%) respondents “disagreed” that GPE was important for medical students. 05(5.3%) respondents were “not sure” about importance of GPE for medical students. However, 47(49.5%) respondents “agreed” and 39(41.1%) respondents “strongly agreed” that GPE was important for medical students.

Similarly, 09(8.9%) respondents from medical trainees “strongly disagreed” and 06(5.9%) respondents “disagreed” that GPE was important for medical students. 11(10.9%) respondents were “not sure” about the importance of GPE for medical students. However, 40(39.6%) respondents “agreed” and 35(34.7%) respondents “strongly agreed” that GPE was important for medical students.

The overall results reveal that 324 (81.20%) respondents agreed and 44(11.02%) respondents disagreed that general purpose English was important for medical studies. Figure 7.1 illustrates the details of results in this regard.

![Figure 7.1](image-url)  
Figure 7.1. Frequency of responses for combined groups’ perceptions regarding importance of GPE.
7.1.1. Comparison of Combined Groups’ Perceptions

Table 7.2

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>4.0197</td>
<td>4.0</td>
<td>4.0</td>
<td>1.12558</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.26316</td>
<td>4.0</td>
<td>4.0</td>
<td>0.788353</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.85149</td>
<td>4.0</td>
<td>4.0</td>
<td>1.21972</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents    SD= Standard Deviation    Min=Minimum Scale    Max=Maximum Scale

Table 7.2 presents descriptive statistics of combined groups’ perceptions regarding the statement that general purposes English is important for medical students. The mode value for perceptions of students, teachers and trainees was 4.0, respectively. This indicates that students of medicine, teachers of medicine and medical trainees unanimously agreed that general purposes English was important for medical students in their medical studies.

Table 7.3

ONE WAY ANOVA Table for Combined Groups’ Perceptions Regarding Importance of GPE

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>8.39426</td>
<td>2</td>
<td>4.19713</td>
<td>3.59</td>
<td>0.0285</td>
</tr>
<tr>
<td>Within groups</td>
<td>463.115</td>
<td>396</td>
<td>1.16948</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>471.509</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level.    Df= Degree of Freedom

The ONE WAY ANOVA Table 7.3 was used to test the equality of average perceptions among groups regarding importance of GPE. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.
Table 7.4

LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Importance of GPE

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>-0.243453</td>
<td>0.264285</td>
<td></td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>0.168219</td>
<td>0.258883</td>
<td></td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td>*</td>
<td>0.411673</td>
<td>0.303865</td>
</tr>
</tbody>
</table>

Note. * Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 7.4 indicates that pair (Teachers – Trainees) average perceptions was different and pairs (Students – Teachers, Students – Trainees) average perceptions were insignificant. Figure 7.2 illustrates the details of results in this regard.

![Means and 95.0 Percent LSD Intervals](image)

*Figure 7.2.* LSD plot for average response comparison of medical groups’ perceptions regarding importance of GPE.
7.2. Importance of English for Medical Purposes (EMP)

Table 7.5

*Frequencies and Percentages of Combined Groups’ Perceptions Regarding Importance of EMP*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F  P</td>
<td>F  P</td>
<td>F  P</td>
<td>F  P</td>
<td>F  P</td>
<td>N</td>
</tr>
<tr>
<td>Students</td>
<td>02 1.0</td>
<td>06 3.0</td>
<td>15 7.4</td>
<td>79 38.9</td>
<td>101 49.8</td>
<td>203</td>
</tr>
<tr>
<td>Teachers</td>
<td>01 1.1</td>
<td>01 1.1</td>
<td>04 4.2</td>
<td>41 43.2</td>
<td>48 50.5</td>
<td>95</td>
</tr>
<tr>
<td>Trainees</td>
<td>02 2.0</td>
<td>02 2.0</td>
<td>09 8.9</td>
<td>44 43.6</td>
<td>44 43.6</td>
<td>101</td>
</tr>
<tr>
<td>N</td>
<td>05 +</td>
<td>09 +</td>
<td>28 +</td>
<td>164 +</td>
<td>193 =</td>
<td>399</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  F= Frequency  P= Percentage

Table 7.5 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: *English for Medical Purposes is important for medical students.* 02(1.0%) respondents from students of medicine “strongly disagreed” and 06(3.0%) respondents “disagreed” that English for Medical Purpose (EMP) was important for medical students, 15(7.4%) respondents were “not sure” about the importance of EMP for medical students whereas, 79(38.9%) respondents “agreed” and 101(49.8%) respondents “strongly agreed” that EMP was important for medical students.

Regarding identification of opinions about learning EMP at medical college, 01(1.1%) respondent from teachers of medicine “strongly disagreed” and 01(1.1%) respondent “disagreed” that EMP was important for medical students, 04(4.2%) respondents were “not sure” about importance of EMP for medical students, 41(43.2%) respondents “agreed” similarly, 48(50.5%) respondents “strongly agreed” that EMP was important for medical students.

About learning EMP at medical college, 02(2.0%) respondents from medical trainees “strongly disagreed” and 02(2.0%) respondents “disagreed” that EMP was important for medical students. 09(8.9%) respondents were “not sure” regarding
importance of EMP for medical students. However, 44(43.6%) respondents “agreed” and 44(43.6%) respondents “strongly agreed” that EMP was important for medical students.

The overall results indicate that 357(89.4%) respondents agreed and 14(3.50%) respondents disagreed that EMP was important for medical students. Figure 7.3 illustrates the details of results in this regard.

![Importance of EMP](image)

*Figure 7.3. Frequency of responses for combined groups’ perceptions regarding importance of EMP.*
7.2.1. Comparison of Combined Groups’ Perceptions

Table 7.6

Descriptive Statistics of Combined Groups’ Perceptions Regarding Importance of EMP

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>4.53695</td>
<td>5.0</td>
<td>5.0</td>
<td>2.8997</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.26316</td>
<td>4.0</td>
<td>4.0</td>
<td>0.788353</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>4.24752</td>
<td>4.0</td>
<td>4.0</td>
<td>0.853299</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  SD= Standard Deviation  Min=Minimum Scale  Max=Maximum Scale

Table 7.6 gives descriptive statistics of combined groups’ perceptions regarding the statement that English for medical purposes is important for medical students. The mode value for perceptions of students was 5.0. This indicates that students strongly agreed that learning English for medical purposes was important for them. The mode value for perceptions of teachers and trainees was 4.0, respectively. This indicates that teachers and trainees agreed that learning English for medical purposes was important for medical students at medical college.

Table 7.7

ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding Importance of EMP

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>7.93326</td>
<td>2</td>
<td>3.96663</td>
<td>0.86</td>
<td>0.4246</td>
</tr>
<tr>
<td>Within groups</td>
<td>1829.71</td>
<td>396</td>
<td>4.62047</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1837.64</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level.  Df= Degree of Freedom

The ONE WAY ANOVA Table 7.7 was used to test the equality of average perceptions among groups regarding importance of EMP. It indicates that the results were insignificant as p-value was greater than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were identical. Figure 7.4 illustrates the details of results in this regard.
Figure 7.4. LSD plot for average response comparison of medical groups’ perceptions regarding importance of EMP.
### 7.3. General English (GE) Instruction from 1st Year of Medical Classes

Table 7.8

**Frequencies and Percentages of Combined Groups’ Perceptions Regarding GE Instruction from 1st Year**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>13</td>
<td>6.4</td>
<td>15</td>
<td>7.4</td>
<td>46</td>
<td>22.7</td>
</tr>
<tr>
<td>Teachers</td>
<td>08</td>
<td>8.4</td>
<td>-</td>
<td>-</td>
<td>15</td>
<td>15.8</td>
</tr>
<tr>
<td>Trainees</td>
<td>13</td>
<td>12.9</td>
<td>08</td>
<td>7.9</td>
<td>12</td>
<td>11.9</td>
</tr>
<tr>
<td>N</td>
<td>34</td>
<td>+</td>
<td>23</td>
<td>+</td>
<td>73</td>
<td>+</td>
</tr>
</tbody>
</table>

**Note:** N= Total Number of Respondents  
F= Frequency  
P= Percentage

Table 7.8 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: **General English instruction should start from 1st year of medical classes.** 13(6.4%) respondents from students of medicine “strongly disagreed” and 15(7.4%) respondents “disagreed” that General English (GE) instruction should start from 1st year of medical classes. 46(22.7%) respondents were “not sure” that GE instruction for medical students should start from 1st year of medical classes whereas, 56(27.6%) respondents “agreed” and 73(36.0%) respondents “strongly agreed” that GE instruction should start from 1st year of medical classes.

For introducing GE instruction from 1st year of medical classes, 08(8.4%) respondents from medical teachers “strongly disagreed” that GE instruction should start from 1st year of medical classes, 15(15.8%) respondents were “not sure” that GE instruction should start from 1st year of medical classes whereas, 37(38.9%) respondents “agreed” and 35(36.8%) respondents “strongly agreed” that GE instruction should start from 1st year of medical classes.

Similarly, 13(12.9%) respondents from medical trainees “strongly disagreed” and 08(7.9%) respondents “disagreed” that GE should start from 1st year of medical classes. 12(11.9%) respondents were “not sure” about it. Whereas 37(36.6%) respondents
“agreed” and 31(30.7%) respondents “strongly agreed” that GE instruction should start from 1st year of medical classes.

The overall results illustrate that 269(67.4%) respondents agreed and 57(14.3 %) respondents disagreed that general English instruction should start from 1st year of medical classes. Figure 7.5 shows the details of results in this regard.

Figure 7.5. Frequency of responses for combined groups’ perceptions regarding GE instruction from 1st year.
7.3.1. Comparison of Combined Groups’ Perceptions

Table 7.9

Descriptive Statistics of Combined Groups’ Perceptions Regarding GE Instruction from 1st Year

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.7931</td>
<td>4.0</td>
<td>5.0</td>
<td>1.19261</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.95789</td>
<td>4.0</td>
<td>4.0</td>
<td>1.13846</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.64356</td>
<td>4.0</td>
<td>4.0</td>
<td>1.33854</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation   Min=Minimum Scale   Max=Maximum Scale

Table 7.9 gives descriptive statistics of combined groups’ perceptions regarding opinions about the statement that general English instruction should start from 1st year of medical classes. The mode value for students’ perceptions was 5.0 in this regard. This indicates that students strongly agreed that GE instruction should start from 1st year of medical college. Whereas mode value for the perceptions of teachers and trainees was 4.0, respectively. This indicates that teachers and trainees agreed that GE instruction should start from 1st year of medical college.

Table 7.10

ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding GE Instruction from 1st Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>4.83763</td>
<td>2</td>
<td>2.41881</td>
<td>1.63</td>
<td>0.1976</td>
</tr>
<tr>
<td>Within groups</td>
<td>588.31</td>
<td>396</td>
<td>1.48563</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>593.148</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level.  Df= Degree of Freedom

The ONE WAY ANOVA Table 7.10 was used to test the equality of average perceptions among groups regarding importance of GE instruction from 1st year. It indicates that the results were insignificant as p-value was greater than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were identical. Figure 7.6 illustrates the details of results in this regard.
Figure 7.6. LSD plot for average response comparison of medical groups’ perceptions regarding GE instruction from 1st year.
7.4. Medical English Instruction from 1st Year of Medical Classes

Table 7.11
Frequencies and Percentages of Combined Groups’ Perceptions Regarding Medical Instruction from 1st Year

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>03</td>
<td>1.5</td>
<td>06</td>
<td>3.0</td>
<td>11</td>
<td>5.4</td>
</tr>
<tr>
<td>Teachers</td>
<td>02</td>
<td>2.1</td>
<td>01</td>
<td>1.1</td>
<td>13</td>
<td>13.7</td>
</tr>
<tr>
<td>Trainees</td>
<td>11</td>
<td>10.9</td>
<td>05</td>
<td>5.0</td>
<td>10</td>
<td>9.9</td>
</tr>
<tr>
<td>N</td>
<td>16</td>
<td>+</td>
<td>12</td>
<td>+</td>
<td>34</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents      F= Frequency     P= Percentage

Table 7.11 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: **Medical English instruction should start from 1st year of medical classes.** 03(1.5%) respondents from students of medicine “strongly disagreed” and 06(3.0%) respondents “disagreed” that medical English instruction should start from 1st year of medical classes. 11(5.4%) respondents were “not sure” in this regard, whereas 71(35.0%) respondents “agreed” and 112(55.2%) respondents “strongly agreed” that medical English instruction should start from 1st year of medical classes.

For the similar item, 02(2.1%) respondents from teachers of medicine “strongly disagreed” and 01(1.1%) respondent “disagreed” that medical English instruction should start from 1st year of medical classes. 13(13.7%) respondents were “not sure” whereas, 47(49.5%) respondents “agreed” and 32(33.7%) respondents “strongly agreed” that medical English should start from 1st year of medical classes.
11 (10.9%) respondents from medical trainees “strongly disagreed” and 05 (5.0%) respondents “disagreed” that medical English instruction should start from 1st year of medical classes. 10 (9.9%) respondents were “not sure” about it. However, 39 (38.6%) respondents “agreed” and 36 (35.6%) respondents “strongly agreed” that medical English should start from 1st year of medical classes.

The overall results indicate that 337 (84.4%) respondents agreed and 28 (7.01%) respondents disagreed that medical English instruction should start from 1st year of medical classes. Figure 7.7 illustrates the details of results in this regard.

*Figure 7.7. Frequency of responses for combined groups’ perceptions regarding medical English instruction from 1st year.*
7.4.1. Comparison of Combined Groups’ Perceptions

Table 7.12

Descriptive Statistics of Combined Groups’ Perceptions Regarding Medical English from 1st Year

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>4.39409</td>
<td>5.0</td>
<td>5.0</td>
<td>0.839828</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.11579</td>
<td>4.0</td>
<td>4.0</td>
<td>0.836191</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.83168</td>
<td>4.0</td>
<td>4.0</td>
<td>1.27334</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents  SD= Standard Deviation  Min=Minimum Scale  Max=Maximum Scale*

Table 7.12 presents descriptive statistics for combined groups’ perceptions in regard to the statement that medical English instruction should start from 1st year of medical college. The mode value for students’ perceptions was 5.0. This indicates that students strongly agreed that medical English should start from 1st year of medical classes. Whereas mode value for perceptions of teachers and trainees was 4.0, respectively. This indicates that teachers and trainees agreed that medical English should start from 1st year of medical classes.

Table 7.13

ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding Medical English from 1st Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>21.9379</td>
<td>2</td>
<td>10.9689</td>
<td>11.73</td>
<td>0.0000</td>
</tr>
<tr>
<td>Within groups</td>
<td>370.338</td>
<td>396</td>
<td>0.935197</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>392.276</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. The mean difference is significant at the .05 level.  Df= Degree of Freedom*

The ONE WAY ANOVA Table 7.13 was used to test the equality of average perceptions among groups regarding medical English from 1st year. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.
Table 7.14

LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Medical English from 1st Year

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>0.278299</td>
<td>0.236335</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>*</td>
<td>0.562406</td>
<td>0.231504</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td>*</td>
<td>0.284106</td>
<td>0.271729</td>
</tr>
</tbody>
</table>

Note. *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 7.14 indicates that pairs (Students – Teachers, Students – Trainees Teachers – Trainees) average perceptions were different. Figure 7.8 illustrates the details of results in this regard.

![LSD plot for average response comparison regarding medical English from 1st year.](image)

*Figure 7.8. LSD plot for average response comparison regarding medical English from 1st year.*
7.5. Relevancy of Medical English Courses

Table 7.15

Frequencies and Percentages of Combined Groups’ Perceptions Regarding Relevancy of Medical English Courses

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>04</td>
<td>2.0</td>
<td>13</td>
<td>6.4</td>
<td>46</td>
<td>22.7</td>
</tr>
<tr>
<td>Teachers</td>
<td>03</td>
<td>3.2</td>
<td>03</td>
<td>3.2</td>
<td>23</td>
<td>24.2</td>
</tr>
<tr>
<td>Trainees</td>
<td>02</td>
<td>2.0</td>
<td>12</td>
<td>11.9</td>
<td>21</td>
<td>20.8</td>
</tr>
<tr>
<td>N</td>
<td>09</td>
<td>+</td>
<td>28</td>
<td>+</td>
<td>90</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  
F= Frequency  
P= Percentage

Table 7.15 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: The materials in medical students’ English courses should be relevant to the medical field. 04(2.0%) respondents from students of medicine “strongly disagreed” and 13(6.4%) respondents “disagreed” that materials for English courses should be relevant to the medical field. 46(22.7%) respondents were “not sure” about the relevancy of materials of English courses to medical field whereas, 66(32.7%) respondents “agreed” and 74(36.5%) respondents “strongly agreed” that the materials in medical students’ English courses should be relevant to the medical field.

Similarly, 03(3.2%) respondents from students of medicine “strongly disagreed” and 03(3.2%) respondents “disagreed” that materials in medical English courses should be relevant to the medical field. 23(24.2%) respondents were “not sure” in this regard whereas, 31(32.6%) respondents “agreed” and 35(36.8%) respondents “strongly agreed” that the materials in English courses should be relevant to medical field.

For the similar item, 02(2.0%) respondents from medical trainees “strongly disagreed” and 12(11.9%) respondents “disagreed” that materials in English courses for medical students should be relevant to the medical field. 21(20.8%) respondents were “not sure” about the relevancy of materials in English courses to the medical field.
However, 33(32.7%) respondents “agreed” and thus 33(32.7%) respondents “strongly agreed” that the materials in English courses should be relevant to the medical field.

The overall results reveal that 272(68.1%) respondents agreed and 37(9.2%) respondents disagreed that the materials in medical students’ English courses should be relevant to the medical field. Figure 7.9 illustrates the details of results in this regard.

*Figure 7.9. Frequency of responses for combined groups’ perceptions regarding relevancy of medical English courses with medical field.*
7.5.1. Comparison of Combined Groups’ Perceptions

Table 7.16

Descriptive Statistics of Combined Groups’ Perceptions Regarding Relevancy of Medical English Courses

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.95074</td>
<td>4.0</td>
<td>5.0</td>
<td>1.01354</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.96842</td>
<td>4.0</td>
<td>4.0</td>
<td>1.01534</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.82178</td>
<td>4.0</td>
<td>4.0</td>
<td>1.0807</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents       SD= Standard Deviation      Min=Minimum Scale     Max=Maximum Scale

Table 7.16 presents descriptive statistics of combined groups’ perceptions in regard to the statement that the materials in medical students’ English courses should be relevant to the medical field. The mode value for perceptions of students was 5.0. This indicates that students strongly agreed that English courses in medical college should be relevant to the medical field. Whereas mode value for perceptions of teachers and trainees was 4.0, respectively. This indicates that teachers and trainees agreed that English courses in medical college should be relevant to the medical field.

Table 7.17

ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding Relevancy of Medical English Courses

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1.38675</td>
<td>2</td>
<td>0.693374</td>
<td>0.65</td>
<td>0.5216</td>
</tr>
<tr>
<td>Within groups</td>
<td>421.205</td>
<td>396</td>
<td>1.06365</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>422.591</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level.   Df= Degree of Freedom

The ONE WAY ANOVA Table 7.17 was used to test the equality of average perceptions among groups regarding relevancy of medical English courses. It indicates that the results were insignificant as p-value was greater than 0.05. This concludes that
the average perceptions of medical students, teachers and trainees were identical. Figure 7.10 illustrates the details of results in this regard.

*Figure 7.10.* LSD plot for average response comparison of medical groups’ perceptions regarding relevancy of medical English courses.
7.6. Amount of English Instruction before Medical College

Table 7.18

Frequencies and Percentages of Combined Groups’ Perceptions Regarding Amount of English Instruction before Medical College

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>48</td>
<td>23.6</td>
<td>50</td>
<td>24.6</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>Teachers</td>
<td>09</td>
<td>9.5</td>
<td>33</td>
<td>34.7</td>
<td>24</td>
<td>25.3</td>
</tr>
<tr>
<td>Trainees</td>
<td>33</td>
<td>32.6</td>
<td>33</td>
<td>32.7</td>
<td>16</td>
<td>15.8</td>
</tr>
<tr>
<td>N</td>
<td>90</td>
<td>+</td>
<td>116</td>
<td>+</td>
<td>107</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents F= Frequency P= Percentage

Table 7.18 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: The amount of English instruction given to medical students before joining medical college is adequate to meet their academic and occupational English language needs. 48(23.6%) respondents from students of medicine “strongly disagreed” and 50(24.6%) respondents “disagreed” that the amount of English instruction given to medical students before entering medical college was adequate to meet their academic and occupational English language needs. 67(33%) respondents were “not sure” about adequacy of English instruction given to the medical students before joining medical college. However, 24(11.8%) respondents “agreed” and 14(6.89%) respondents “strongly agreed” that the amount of English instruction given to medical students before joining medical college was adequate to meet their academic and occupational English language needs.

For the similar item, 09(9.5%) respondents from teachers of medicine “strongly disagreed” and 33(34.7%) respondents “disagreed” that the amount of English instruction given to medical students before joining medical college was adequate to meet their academic and occupational English language needs. 24(25.3%) respondents were “not sure” about adequacy of English instruction given to the medical students before joining medical college.
medical college. However, 19(20%) respondents “agreed” and 10(10.5%) respondents “strongly agreed” that the amount of English instruction given to medical students before joining medical college was adequate to meet their academic and occupational English language needs.

Similarly, 33(32.6%) respondents from medical trainees “strongly disagreed” and 33(32.7%) respondents “disagreed” that the amount of English instruction given to medical students before joining medical college was adequate to meet their academic and occupational English language needs. 16(15.8%) respondents were “not sure” regarding adequacy of English instruction given to the medical students before joining medical college. However, 10(9.9%) respondents “agreed” and 09(8.9%) respondents “strongly agreed” that the amount of English instruction given to medical students before joining medical college was adequate to meet their academic and occupational English language needs.

The overall results reveal that 206(51.6%) respondents disagreed and 86(21.5%) respondents agreed that the amount of English instruction given to medical students before joining medical college was adequate to meet their academic and occupational English language needs. Figure 7.11 illustrates the details of results in this regard.

![Image](image.png)

Figure 7.11. Frequency of responses for combined groups’ perceptions regarding amount of English before medical college.
7.6.1. Comparison of Combined Groups’ Perceptions

Table 7.19

*Descriptive Statistics of Combined Groups’ Perceptions Regarding Amount of English Instruction before Medical College*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>2.41379</td>
<td>2.0</td>
<td>2.0</td>
<td>1.15878</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>2.76842</td>
<td>2.0</td>
<td>2.0</td>
<td>1.1247</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>2.44554</td>
<td>1.0</td>
<td>1.0</td>
<td>1.38907</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents      SD= Standard Deviation       Min=Minimum Scale     Max=Maximum Scale

Table 7.19 presents descriptive statistics of combined groups’ perceptions in regard to the statement that the amount of English instruction given to medical students before joining medical college is adequate to meet their academic and occupational English language needs. The mode value for perceptions of students and teachers was 2.0, respectively. This indicates that students and teachers disagreed that amount of English instruction given to medical students before entering medical college was adequate to meet their academic and occupational needs of language in medical college. The mode value for trainees’ perceptions was 1.0. This indicates that trainees strongly disagreed that amount of English instruction given to medical students before entering medical college was adequate to meet their academic and occupational needs of language in medical college.
Table 7.20

**ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding Amount of English Instruction before Medical College**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>8.6372</td>
<td>2</td>
<td>4.3186</td>
<td>2.93</td>
<td>0.0484</td>
</tr>
<tr>
<td>Within groups</td>
<td>583.097</td>
<td>396</td>
<td>1.47247</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>591.734</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The mean difference is significant at the .05 level.  
Df= Degree of Freedom

The ONE WAY ANOVA Table 7.20 was used to test the equality of average perceptions among groups regarding amount of English instruction before medical college. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.

Table 7.21

**LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Amount of English Instruction before Medical College**

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.354628</td>
<td>0.296551</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td></td>
<td>-0.0317515</td>
<td>0.290489</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td></td>
<td>0.322876</td>
<td>0.340963</td>
</tr>
</tbody>
</table>

*Note.* * Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 7.21 indicates that pairs (Students - Teachers and Students - Trainees) average perceptions were different. And pair (Teachers – Trainees) average perceptions were insignificant. Figure 7.12 illustrates the details of results in this regard.
Figure 7.12. LSD plot for average response comparison of medical groups’ perceptions regarding amount of English instruction before medical college.
7.7. Interactive Method by English Language Instructors

Table 7.22
Frequencies and Percentages of Combined Groups’ Perceptions Regarding Use of Interactive Method by English Language Instructors

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>02</td>
<td>1.0</td>
<td>14</td>
<td>6.9</td>
<td>41</td>
<td>20.2</td>
</tr>
<tr>
<td>Teachers</td>
<td>01</td>
<td>1.1</td>
<td>07</td>
<td>7.4</td>
<td>12</td>
<td>12.6</td>
</tr>
<tr>
<td>Trainees</td>
<td>08</td>
<td>7.9</td>
<td>03</td>
<td>3.0</td>
<td>24</td>
<td>23.8</td>
</tr>
<tr>
<td>N</td>
<td>11</td>
<td>+</td>
<td>24</td>
<td>+</td>
<td>77</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  
F= Frequency  
P= Percentage

Table 7.22 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: English language instructors should use a method in which students can learn English interactively in groups. Regarding this statement, 02(1.0%) respondents from students of medicine “strongly disagreed” and 14(6.9%) respondents “disagreed” that English language instructors should use an interactive teaching method to teach medical students. 41(20.2%) respondents were “not sure” about use of interactive teaching methods for medical students. However, 87(42.9%) respondents “agreed” and 59(29.1%) respondents “strongly agreed” that teachers should use a method in which students could learn English interactively in groups.

For using an interactive method of teaching English to the medical students, 01(1.1%) respondent from teachers of medicine “strongly disagreed” and 07(7.4%) respondents “disagreed” that English language instructors should use any interactive teaching method to teach English to medical students. 12(12.6%) respondents were “not sure” about use of interactive teaching methods by English instructors for medical students. However, 46(48.4%) respondents “agreed” and 29(30.5%) respondents “strongly agreed” that teachers should use method in which students could learn English interactively in groups.
For the similar item, 08(7.9%) respondents from medical trainees “strongly disagreed” and 03(3.0%) respondents “disagreed” that English language instructors should use an interactive teaching method for teaching English to medical students. 24(23.8%) respondents were “not sure” that instructors should use interactive methods for teaching English to medical students. 37(36.6%) respondents “agreed” and 29(28.7%) respondents “strongly agreed” that English instructors should use such English teaching methods by means of which students could learn English interactively in groups.

The overall results indicate that 287(71.92%) respondents agreed and 35(8.7%) respondents disagreed that English language instructors should use a method in which students could learn English interactively in groups. Figure 7.13 illustrates the details of results in this regard.

![Figure 7.13. Frequency of responses for combined groups’ perceptions regarding use of interactive method by English language instructors.](image-url)
7.7.1. Comparison of Combined Groups’ Perceptions

Table 7.23

Descriptive Statistics of Combined Groups’ Perceptions Regarding Use of Interactive Method by English Language Instructors

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.92118</td>
<td>4.0</td>
<td>4.0</td>
<td>0.92474</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>0.910927</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.75248</td>
<td>4.0</td>
<td>4.0</td>
<td>1.14373</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents      SD= Standard Deviation      Min=Minimum Scale      Max=Maximum Scale

Table 7.23 presents descriptive statistics for comparison of combined groups’ perceptions in regard to the statement that English language instructors should use a method in which students can learn English interactively in groups. The mode value for perceptions of students, teachers and trainees was 4.0, respectively. This indicates that students of medicine, teachers of medicine and medical trainees unanimously agreed that English language instructors should use interactive method through which students could learn English in effective way.

Table 7.24

ONE WAY ANOVA Table for Medical Groups’ perceptions Regarding Use of Interactive Method by English Language Instructors

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3.23617</td>
<td>2</td>
<td>1.61808</td>
<td>1.68</td>
<td>0.1878</td>
</tr>
<tr>
<td>Within groups</td>
<td>381.551</td>
<td>396</td>
<td>0.963512</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>384.787</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level.    Df= Degree of Freedom

The ONE WAY ANOVA Table 7.24 was used to test the equality of average perceptions among groups regarding use of interactive method by English language instructors. It indicates that the results were insignificant as p-value was greater than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were identical. Figure 7.14 illustrates the details of results in this regard.
Figure 7.14. LSD plot for average response comparison of medical groups’ perceptions regarding use of interactive method by English language instructors.
7.8. Problem Based Learning (PBL)

Table 7.25

*Frequencies and Percentages of Combined Groups’ Perceptions Regarding Use of PBL in EMP Courses*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>06</td>
<td>3.0</td>
<td>09</td>
<td>4.4</td>
<td>47</td>
<td>23.2</td>
</tr>
<tr>
<td>Teachers</td>
<td>01</td>
<td>1.1</td>
<td>-</td>
<td>-</td>
<td>12</td>
<td>12.6</td>
</tr>
<tr>
<td>Trainees</td>
<td>07</td>
<td>6.9</td>
<td>05</td>
<td>5.0</td>
<td>17</td>
<td>16.8</td>
</tr>
<tr>
<td>N</td>
<td>14 +</td>
<td>-</td>
<td>14 +</td>
<td>-</td>
<td>76</td>
<td>+</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents  F= Frequency  P= Percentage*

Table 7.25 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: *Problem based learning (PBL) should be adopted to use in English for medical purposes courses.* 06(3.0%) respondents from students of medicine “strongly disagreed” and 09(4.4%) respondents “disagreed” that English language instructors should adopt PBL in EMP courses. 47(23.2%) respondents were “not sure” in this regard whereas, 78(38.4%) respondents “agreed” and 63(31.0%) respondents “strongly agreed” that English instructors should adopt PBL to teach EMP to the students of medicine.

Similarly, 01(1.1%) respondent from medical trainees “disagreed” and 12(12.6%) respondents were “not sure” that English instructors should adopt PBL in EMP courses whereas 53(55.8%) respondents “agreed” and 29(30.5%) respondents “strongly agreed” that English instructors should adopt PBL for teaching EMP to medical students.

Regarding opinions about adopting PBL in EMP courses, 07(6.9%) respondents from medical trainees “strongly disagreed” and 05(5.0%) respondents “disagreed” that PBL should be adopted in EMP courses. 17(16.8%) respondents were “not sure” in this regard whereas, 40(39.6%) respondents “agreed” and 32(31.7%) respondents “strongly agreed” that PBL should be adopted for EMP courses.
The overall results indicate that 295 (73.9%) respondents agreed and 28 (7.01%) respondents disagreed that PBL should be adopted in English for medical purposes courses. Figure 7.15 illustrates the details of results in this regard.

*Figure 7.15.* Frequency of responses for combined groups’ perceptions regarding use of PBL in EMP courses.
7.8.1. Comparison of Combined Groups’ Perceptions

Table 7.26

*Descriptive Statistics of Combined Groups’ Perceptions Regarding Use of PBL in EMP Courses*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.90148</td>
<td>4.0</td>
<td>4.0</td>
<td>0.990123</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.15789</td>
<td>4.0</td>
<td>4.0</td>
<td>0.673444</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.84158</td>
<td>4.0</td>
<td>4.0</td>
<td>1.13783</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note.* N= Total Number of Respondents   SD= Standard Deviation        Min=Minimum Scale     Max=Maximum Scale

Table 7.26 presents descriptive statistics for comparison of combined groups’ perceptions in regard to the statement that problem based learning (PBL) should be adopted to use in English for medical purposes courses. The mode value for average perceptions of students, teachers and trainees was 4.0, respectively. This indicates that students of medicine, teachers of medicine and medical trainees unanimously agreed that PBL should be adopted to use in EMP courses at medical colleges.

Table 7.27

*ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding Use of PBL in EMP Courses*

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>5.76825</td>
<td>2</td>
<td>2.88413</td>
<td>3.09</td>
<td>0.0468</td>
</tr>
<tr>
<td>Within groups</td>
<td>370.126</td>
<td>396</td>
<td>0.934663</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>375.895</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The mean difference is significant at the .05 level.  Df= Degree of Freedom

The ONE WAY ANOVA Table 7.27 was used to test the equality of average perceptions among groups regarding PBL. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.
LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 7.28 indicates that pairs (Students - Teachers and Teachers - Trainees) average perceptions were different. And pair (Students – Trainees) average perceptions were insignificant. Figure 7.16 illustrates the details of results in this regard.

![Means and 95.0 Percent LSD Intervals](chart.png)

**Figure 7.16.** LSD plot for average response comparison of medical groups’ perceptions regarding PBL.
7.9. English Capacity for Library Use

Table 7.29  
*Frequencies and Percentages of Combined Groups’ Perceptions Regarding English Capacity for Library Use*

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>14</td>
<td>6.9</td>
<td>40</td>
<td>19.7</td>
<td>58</td>
<td>28.6</td>
</tr>
<tr>
<td>Teachers</td>
<td>07</td>
<td>7.4</td>
<td>07</td>
<td>7.4</td>
<td>25</td>
<td>26.3</td>
</tr>
<tr>
<td>Trainees</td>
<td>08</td>
<td>7.9</td>
<td>09</td>
<td>8.9</td>
<td>17</td>
<td>16.8</td>
</tr>
<tr>
<td>N</td>
<td>29</td>
<td>+</td>
<td>56</td>
<td>+</td>
<td>100</td>
<td>+</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents  F= Frequency  P= Percentage*

Table 7.29 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: *The medical students should have the language capacity to read the English language medical sources in the library.* 14(6.9%) respondents from students of medicine “strongly disagreed” and 40(19.7%) respondents “disagreed” that medical students should have the language capacity to read the English sources in the library. 58(28.6%) respondents were “not sure” that students should have language capacity to read English sources in the library. However, 58(28.6%) respondents “agreed” and 33(16.3%) respondents “strongly agreed” that medical students should have language capacity to read English language medical sources in library.

Similarly, 07(7.4%) respondents from teachers of medicine “strongly disagreed” and 07(7.4%) respondents “disagreed” that medical students should have the language capacity to read English sources in the library. 25(26.3%) respondents were “not sure” that medical students should have language capacity to read English language medical sources in the library. 35(36.8%) respondents “agreed” and 21(22.1%) respondents “strongly agreed” that medical students should have the language capacity to read English language medical sources available in library.
08(7.9%) respondents from medical trainees, “strongly disagreed” and 09(8.9%) respondents “disagreed” that medical students should have language capacity to read English language medical sources in the library. 17(16.8%) respondents were “not sure” that medical students should have language capacity to read English sources in the library. 47(46.5%) respondents “agreed” and 20(19.8%) respondents “strongly agreed” that medical students should have language capacity to read English language medical sources in the library.

The overall results indicate that 214(53.6%) respondents agreed and 85(21.3%) respondents disagreed that the medical students should have the language capacity to read English language medical sources in the library. Figure 7.17 illustrates the details of results in this regard.

![Figure 7.17: Frequency of responses for combined groups’ perceptions regarding English language capacity for library use.](image)
7.9.1. Comparison of Combined Groups’ Perceptions

Table 7.30
Descriptive Statistics of Combined Groups’ Perceptions Regarding English Language Capacity for Library Use

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.27586</td>
<td>4.0</td>
<td>4.0</td>
<td>1.15731</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.58947</td>
<td>4.0</td>
<td>4.0</td>
<td>1.13451</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.61386</td>
<td>4.0</td>
<td>4.0</td>
<td>1.13991</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N = Total Number of Respondents; SD = Standard Deviation; Min = Minimum Scale; Max = Maximum Scale

Table 7.30 presents descriptive statistics for comparison of combined groups’ perceptions in regard to statement that medical students should have language capacity to read English medical sources in library. The mode value for average perceptions of students, teachers and trainees was 4.0, respectively. This indicates that students of medicine, teachers of medicine and medical trainees unanimously agreed that medical students should have English language capacity to read English medical sources in library.

Table 7.31
ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding English Language Capacity for Library Use

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>10.6385</td>
<td>2</td>
<td>5.31925</td>
<td>4.04</td>
<td>0.0183</td>
</tr>
<tr>
<td>Within groups</td>
<td>521.482</td>
<td>396</td>
<td>1.31687</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>532.12</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level. Df = Degree of Freedom

The ONE WAY ANOVA Table 7.31 was used to test the equality of average perceptions among groups regarding English language capacity for library use. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.
Table 7.32

*LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding English Language Capacity for Library Use*

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>*</td>
<td>-0.313612</td>
<td>0.280446</td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>*</td>
<td>-0.337999</td>
<td>0.274712</td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td></td>
<td>-0.0243877</td>
<td>0.322445</td>
</tr>
</tbody>
</table>

*Note.* *Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 7.32 indicates that pairs (Students - Teachers and Students - Trainees) average perceptions were different. And pair (Teachers – Trainees) average perceptions were insignificant. Figure 7.18 illustrates the details of results in this regard.

![Means and 95.0 Percent LSD Intervals](image)

*Figure 7.18.* LSD plot for average response comparison of medical groups’ perceptions regarding English language capacity for library use.
7.10. English for Internet Sites

Table 7.33

Frequencies and Percentages of Combined Groups’ Perceptions Regarding English for Internet Sites

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>02</td>
<td>1.0</td>
<td>31</td>
<td>15.3</td>
<td>26</td>
<td>12.8</td>
</tr>
<tr>
<td>Teachers</td>
<td>02</td>
<td>2.1</td>
<td>07</td>
<td>7.4</td>
<td>24</td>
<td>25.3</td>
</tr>
<tr>
<td>Trainees</td>
<td>05</td>
<td>5.0</td>
<td>14</td>
<td>13.9</td>
<td>22</td>
<td>21.8</td>
</tr>
<tr>
<td>N</td>
<td>09</td>
<td>+</td>
<td>52</td>
<td>+</td>
<td>72</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  F= Frequency  P= Percentage

Table 7.33 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: In order to make use of the medical sites on the Internet, one should have a high level of English. 02(1.0%) respondents from students of medicine “strongly disagreed” and 31(15.3%) respondents “disagreed” that medical students should have a high level of English for using the medical sites on the internet. 26(12.8%) respondents were “not sure” about it. However, 77(37.9%) respondents “agreed” and 67(33.0%) respondents “strongly agreed” that medical students required high level of English language in order to make use of medical sites on the internet.

02(2.1%) respondents from teachers of medicine “strongly disagreed” and 07(7.4%) respondents “disagreed” that medical students should have a high level of English in order to make use of medical sites on the internet. 24(25.3%) respondents were “not sure” regarding high level of English proficiency for using sites on Internet. However, 42(44.2%) respondents “agreed” and 20(21.1%) respondents “strongly agreed” that medical students required high level of English language in order to make use of medical sites on the internet.

05(5.0%) respondents from medical trainees “strongly disagreed” and 14(13.9%) respondents “disagreed” that medical students should have a high level of English in order to make use of the medical sites on the internet. 22(21.8%) respondents were “not
sure” about having high level of English for using medical sites on the Internet. However, 31(30.7%) respondents “agreed” and 29(28.7%) respondents “strongly agreed” that medical students required high level of English language in order to make use of medical sites on the internet.

The overall results indicate that 266(66.6%) respondents agreed and 61(15.2 %) respondents disagreed that in order to make use of the medical sites on the Internet, one should have a high level of English. Figure 7.19 illustrates the details of results in this regard.

![Figure 7.19. Frequency of responses for combined groups’ perceptions regarding English proficiency for medical sites on Internet.](image-url)
7.10.1. Comparison of Combined Groups’ Perceptions

Table 7.34

Descriptive Statistics of Combined Groups’ Perceptions Regarding English Proficiency for Internet Sites

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>3.867</td>
<td>4.0</td>
<td>4.0</td>
<td>1.07032</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>3.74737</td>
<td>4.0</td>
<td>4.0</td>
<td>0.944958</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.64356</td>
<td>4.0</td>
<td>4.0</td>
<td>1.1797</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  SD= Standard Deviation  Min=Minimum Scale  Max=Maximum Scale

Table 7.34 presents descriptive statistics for comparison of combined groups’ perceptions in regard to the statement that in order to make use of the medical sites on the Internet, one should have a high level of English. The mode value for perceptions of students, teachers and trainees was 4.0, respectively. This indicates that students of medicine, teachers of medicine and medical trainees unanimously agreed that in order to make use of medical sites on Internet, medical students should have high level of English proficiency.

Table 7.35

ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding English Proficiency for Internet Sites

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3.51605</td>
<td>2</td>
<td>1.75802</td>
<td>1.53</td>
<td>0.2174</td>
</tr>
<tr>
<td>Within groups</td>
<td>454.514</td>
<td>396</td>
<td>1.14776</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>458.03</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level.  Df= Degree of Freedom

The ONE WAY ANOVA Table 7.35 was used to test the equality of average perceptions among groups regarding English for Internet sites. It indicates that the results were insignificant as p-value was greater than 0.05. This concludes that the average
perceptions of medical students, teachers and trainees were identical. Figure 7.20 illustrates the details of results in this regard.

Figure 7.20. LSD plot for average response comparison of medical groups’ perceptions regarding English proficiency for Internet sites.
7.11. Translation Skills

Table 7.36

Frequencies and Percentages of Combined Groups’ Perceptions Regarding Translation Skills

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>05</td>
<td>2.5</td>
<td>09</td>
<td>4.4</td>
<td>29</td>
<td>14.3</td>
</tr>
<tr>
<td>Teachers</td>
<td>-</td>
<td>-</td>
<td>03</td>
<td>3.2</td>
<td>11</td>
<td>11.6</td>
</tr>
<tr>
<td>Trainees</td>
<td>03</td>
<td>3.0</td>
<td>08</td>
<td>7.9</td>
<td>21</td>
<td>20.8</td>
</tr>
<tr>
<td>N</td>
<td>08</td>
<td>+</td>
<td>20</td>
<td>+</td>
<td>61</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  
F= Frequency  
P= Percentage

Table 7.36 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: *Translation skills are important to develop learners' overall language competence for medical studies.* 05(2.5%) respondents from students of medicine “strongly disagreed” and 09(4.4%) respondents “disagreed” that translation skills were important to develop learners' overall language competence for medical studies. 29(14.3%) respondents were “not sure” about importance of translation skills for developing learners' overall language competence for medical studies. Hence, 96(47.3%) respondents “agreed” and 64(31.5%) respondents “strongly agreed” that translation skills were important to develop learners' overall language competence for medical studies.

Regarding importance of translation skills for developing learners' overall language competence for medical studies, 03(3.2%) respondents from teachers of medicine “disagreed” and 11(11.6%) respondents were “not sure” that translation skills were important to develop learners' overall language competence for medical studies. However, 54(56.8%) respondents “agreed” and 27(28.4%) respondents “strongly agreed” that translation skills were important to develop learners' overall language competence for medical studies.

03(3.0%) respondents from medical trainees “strongly disagreed” and 08(7.9%) respondents “disagreed” that translation skills were important to develop learners' overall language competence for medical studies. 21(20.8%) respondents were “not sure” that
translation skills were important in this regard. However, 44(43.6%) respondents “agreed” and 25(24.8%) respondents “strongly agreed” that translation skills were important to develop learners’ overall language competence for medical studies.

The overall results indicate that 310(77.6 %) respondents agreed and 28(7.01%) respondents disagreed that translation skills were important for medical studies of medical students to develop overall language competence. Figure 7.21 illustrates the details of results in this regard.

Figure 7.21. Frequency of responses for combined groups’ perceptions regarding translation skills for overall language competence in medical studies.
7.11.1. Comparison of Combined Groups’ Perceptions

Table 7.37

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>4.00985</td>
<td>4.0</td>
<td>4.0</td>
<td>0.928056</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.10526</td>
<td>4.0</td>
<td>4.0</td>
<td>0.721607</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.79208</td>
<td>4.0</td>
<td>4.0</td>
<td>1.00316</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Note. N= Total Number of Respondents   SD= Standard Deviation      Min=Minimum Scale     Max=Maximum Scale*

Table 7.37 presents descriptive statistics for comparison of combined groups’ average perceptions in regard to the statement that translation skills are important to develop learners’ overall language competence for medical studies. The mode value for the perceptions of students, teachers and trainees was 4.0, respectively. This indicates that students of medicine, teachers of medicine and medical trainees unanimously agreed that translation skills were important for developing learners’ overall competence in English for medical studies.

Table 7.38

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>5.23567</td>
<td>2</td>
<td>2.61783</td>
<td>3.20</td>
<td>0.0417</td>
</tr>
<tr>
<td>Within groups</td>
<td>323.561</td>
<td>396</td>
<td>0.817074</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>328.797</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. The mean difference is significant at the .05 level.   Df= Degree of Freedom*

The ONE WAY ANOVA Table 7.38 was used to test the equality of average perceptions among groups regarding translation skills. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.
Table 7.39

LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions
Regarding Translation Skills

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>-0.0954109</td>
<td>0.220906</td>
<td></td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>* 0.217773</td>
<td>0.21639</td>
<td></td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td>* 0.313184</td>
<td>0.253989</td>
<td></td>
</tr>
</tbody>
</table>

Note. * Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 7.39 indicates that pairs (Students - Trainees and Teachers - Trainees) average perceptions were different and pair (Students – Teachers) average perceptions were insignificant. Figure 7.22 illustrates the details of results in this regard.

Means and 95.0 Percent LSD Intervals

Figure 7.22. LSD plot for average response comparison of medical groups’ perceptions regarding translation skills.
Table 7.40

Frequencies and Percentages of Combined Groups’ Perceptions Regarding Reading Original English Texts

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Students</td>
<td>2</td>
<td>1.0</td>
<td>07</td>
<td>3.4</td>
<td>11</td>
<td>5.4</td>
</tr>
<tr>
<td>Teachers</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>1.1</td>
<td>12</td>
<td>12.6</td>
</tr>
<tr>
<td>Trainees</td>
<td>16</td>
<td>15.8</td>
<td>02</td>
<td>2.0</td>
<td>08</td>
<td>7.9</td>
</tr>
<tr>
<td>N</td>
<td>18</td>
<td>+</td>
<td>10</td>
<td>+</td>
<td>31</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents  F= Frequency  P= Percentage

Table 7.40 presents frequencies and percentages of combined groups’ perceptions in regard to the statement: *It is important for medical students to be able to read the original English texts.* 02(1.0%) respondents from students of medicine “strongly disagreed” and 07(3.4%) respondents “disagreed” that it was important for medical students to be able to read original English texts. 11(5.4%) respondents were “not sure” in this regard. 91(44.8%) respondents “agreed” and 92(45.3%) respondents “strongly agreed” that it was important for medical students to be able to read the original English texts.

Similarly, 01(1.1%) respondent from teachers of medicine “strongly disagreed” that it was important for medical students to be able to read original English texts. 12(12.6%) respondents were “not sure”, 44(46.3%) respondents “agreed” and 38(40.0%) respondents “strongly agreed” that it was important for medical students to be able to read original English texts.

In regard to reading original English texts for medical students, 16(15.8%) respondents from medical trainees “strongly disagreed” and 02(2.0%) respondents “disagreed” that it was important for medical students to be able to read original English texts. 08(7.9%) respondents were “not sure” about it whereas, 31(30.7%) respondents “agreed” and 44(43.6%) respondents “strongly agreed” that it was important for medical students to be able to read original English texts.
The overall results show that 340 (85.2%) respondents agreed and 28 (7.01%) respondents disagreed that reading original English texts was important for medical students. Figure 7.23 illustrates the details of results in this regard.

*Figure 7.23.* Frequency of responses for combined groups’ perceptions regarding importance of reading original English texts.
7.12.1. Comparison of Combined Groups’ Perceptions

Table 7.41

Descriptive Statistics of Combined Groups’ Perceptions Regarding Reading Original English Texts

<table>
<thead>
<tr>
<th>Respondents</th>
<th>N</th>
<th>Average</th>
<th>Median</th>
<th>Mode</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>203</td>
<td>4.30049</td>
<td>4.0</td>
<td>4.0</td>
<td>0.804289</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>95</td>
<td>4.25263</td>
<td>5.0</td>
<td>5.0</td>
<td>0.714119</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Trainees</td>
<td>101</td>
<td>3.84158</td>
<td>4.0</td>
<td>4.0</td>
<td>1.41938</td>
<td>1.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Note. N= Total Number of Respondents   SD= Standard Deviation       Min=Minimum Scale     Max=Maximum Scale

Table 7.41 presents descriptive statistics for comparison of combined groups’ perceptions in regard to the statement that it is important for medical students to be able to read the original English texts. The mode value for average perceptions of students and trainees was 4.0, respectively. This indicates that students and trainees agreed that it was important for medical students to be able to read original English texts. The mode value for average perceptions of teachers was 5.0. This indicates that teachers strongly agreed that students should be able to read original English texts during medical studies.

Table 7.42

ONE WAY ANOVA Table for Medical Groups’ Perceptions Regarding Reading Original English Texts

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>14.9955</td>
<td>2</td>
<td>7.49776</td>
<td>7.81</td>
<td>0.0005</td>
</tr>
<tr>
<td>Within groups</td>
<td>380.072</td>
<td>396</td>
<td>0.959778</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>395.068</td>
<td>398</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The mean difference is significant at the .05 level.    Df= Degree of Freedom

The ONE WAY ANOVA Table 7.42 was used to test the equality of average perceptions among groups regarding original English texts. It indicates that the results were significant as p-value was less than 0.05. This concludes that the average perceptions of medical students, teachers and trainees were not identical.
Table 7.43

*LSD Pair wise Comparison Test between Medical Groups’ Average Perceptions Regarding Reading Original English Texts*

<table>
<thead>
<tr>
<th>Contrast</th>
<th>Sig.</th>
<th>Difference</th>
<th>+/- Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students - Teachers</td>
<td>0.047861</td>
<td>0.239421</td>
<td></td>
</tr>
<tr>
<td>Students - Trainees</td>
<td>* 0.458908</td>
<td>0.234526</td>
<td></td>
</tr>
<tr>
<td>Teachers - Trainees</td>
<td>* 0.411047</td>
<td>0.275277</td>
<td></td>
</tr>
</tbody>
</table>

*Note. * Denotes a statistically significant difference.

LSD test was used to determine the significant pair from medical groups regarding average perceptions. Table 7.43 indicates that pairs (Students - Trainees and Teachers - Trainees) average perceptions were different. And pair (Students – Teachers) average perceptions were insignificant. Figure 7.24 illustrates the details of results in this regard.

![Means and 95.0 Percent LSD Intervals](image)

*Figure 7.24.* LSD plot for average response comparison of medical groups’ perceptions regarding importance of reading original English texts.
7.13. Conclusion

In this chapter, I have presented detailed analysis of findings related to fifth subsidiary research question, which leads towards making a final conclusion in regard to the need of course of English for medical students in Pakistan. The students of medicine, teachers of medicine and medical trainees provided information with reference to their opinions about learning English at medical college. The findings revealed that 81% respondents agreed and 11.02 % respondents disagreed that general purposes English was important for medical students. 89% respondents agreed and 3.50% respondents disagreed that English for medical purposes was important for medical students. 67.4% respondents agreed and 14.3% respondents disagreed that general English instruction should start from 1st year of medical classes. 84.4% respondents agreed and 7.01% respondents disagreed that medical English instruction should start from 1st year of medical classes. 68.1% respondents agreed and 9.2% respondents disagreed that the materials in medical students’ English courses should be relevant to the medical field. 51.6% respondents disagreed and 21.5% respondents agreed that the amount of English instruction given to medical students before joining medical college was adequate to meet their academic and occupational English language needs. 71.9% respondents agreed and 8.7% respondents disagreed that English language instructors should use a method in which students could learn English interactively in groups. 73.9% respondents agreed and 7.01% respondents disagreed that PBL should be adopted to use in English for medical purposes courses. 53.6% respondents agreed and 21.3% respondents disagreed that the medical students should have the language capacity to read English language medical sources in the library. 66.6% respondents agreed and 15.2% respondents disagreed that in order to make use of the medical sites on the Internet, one should have a high level of English. 77.6% respondents agreed and 7.01% respondents disagreed that translation skills were important for medical studies of medical students to develop overall language competence. 85.2% respondents agreed and 7.01% respondents disagreed that reading original English texts was important for medical students. The over all findings in this chapter revealed that a great majority of students, teachers and trainees agreed that a course of English should be started at medical colleges in Pakistan for several reasons.
CHAPTER 8

QUALITATIVE ANALYSIS

In this chapter, I will present the qualitative findings related to importance of English in the medical field for medical learners with reference to their academic and professional roles. The questionnaires that were distributed to teachers of medicine, medical trainees and medical administrators had an open-ended item for their opinions in regard to importance of English in medical studies/profession. The participants were assumed to point out anything related to English language needs of medical students with reference to listening, speaking, reading and writing skills. Thus, they were provided with an opportunity to give suggestions and highlight problems of the students of medicine with regard to their English language communicative needs.

8.1. Analysis of Qualitative Responses

The participants from the group of teachers of medicine and medical trainees were required to comment with respect to English language needs of medical students whereas, the participants from the group of medical administrators were asked to give opinions about their own English language communicative needs. Therefore, the total number of returned questionnaires in the three questionnaires was 227. Out of total (N=227), the number of missing data in case of qualitative portion was 26(11.45%) as 201(88.54%) participants provided their comments in this item. Amongst the total (n=201) filled responses, 93(46.2%) responses were from teachers, 90(44.7%) responses were from medical trainees and 18(8.95%) responses were from medical administrators. A list of following nine themes emerged in this regard:

1. Academic and Professional Importance of English in Medical Field
2. Problem Based Learning /Group Discussions
3. General Comments Regarding English Communication Skills
4. Presentation Skills/Seminars and Conferences
5. Vocabulary and Grammar
6. Translation Skills
7. Students from Remote Areas
8. Homogenous Medium of Instruction
9. English Courses for Medical Learners

The responses of all respondents according to the themes above-mentioned are reported in the following discussion. Firstly, the statements of teachers of medicine are given. Secondly medical trainees’ responses are presented. Lastly, the medical administrators’ views for each theme are focused.

8.2. Academic and Professional Importance of English in Medical Field

The statements of respondents of all categories showed that English played vital role in their academic and professional lives. The respondents from teachers of medicine perceived that high proficiency in English was greatly required for medical students in order to equip them to deal with the challenges of modern age. They believed that medical students should be encouraged to learn English language. High proficiency of English was needed to prosper in modern times and thus to remain updated with present era. English language played significant role. It was required in further professional studies therefore medical students should be given necessary trainings in English language. A significant number of respondents commented that English language was important rather mandatory in every respect for medical students since all books and relevant medical literatures were available in English. One of teachers stressed the importance of English not only for medical students but considered it equally important for medical teachers. Mentioning the fact s/he stated:

English is most commonly used language now a days. It is very important for teachers, students and daily workers to improve their English language skills hence to make communication effective and strong with their fellows not only within the medical discourse community but also in their daily life. English being an international language should be taught to the students as a linguistic tool from grass root level in medical college to abridge their language deficiencies keeping in view unending importance of English.
The medical trainees gave their opinions in regard to the importance of English for medical studies for pursuing their higher education in foreign countries. This fact highlights importance of English as lingua franca of medicine. The respondents mentioned that English was important for higher education abroad. A trainee stated:

"English is important for communicating specifically for speaking and reading during abroad because English is used at international level for communication. In order to compete with the medical students internationally, we need to improve our skills in terms of listening, speaking, reading and writing."

The respondents believed that English was essential for medical students to understand materials available in their books. Students would usually cram medical literature in order to pass out their examination. This practice has created barriers in their higher education and future professional fields. In their view, medical doctors largely needed good English language skills to meet the international standards. Another medical trainee indicated:

"In my view, English is very important for medical studies, as the medium of instruction in medical education in Pakistan is English. We have to have good proficiency in reading comprehension and writing in English. The main focus should be on medical education while teaching English language courses in medical colleges."

A large number of medical administrators perceived that English was highly important for medical doctors. Be it their academic and professional fields or medical training courses, everything was conducted in English. They revealed that unfortunately, their medical community was not well versed in English. Their ability to deal with English language in regard to creative writings and general readings was evidently inapt. The notable reason behind the insufficient command of English language of medical doctors was lack of its practice in their community and offices. This factor would affect the proficiency of those doctors as well who once had excellent skills and knowledge in English. Thus, these doctors would no longer take interest to address this issue appropriately. Instead they would get entirely detached in terms of improving their English language ability at a certain point finding no motivation in this regard. Hence, this alienation from English has made them sluggish in terms of higher education and
professional excellence. The inadequate command in English has affected the trend of research-oriented studies in medical education. The respondents believed that lack of expertise in English was one of the major reasons for weak research area in medical studies. The medical learners were not proficient enough to consult advanced literary materials and research methods available around the world; therefore they would prefer to keep themselves refrained from getting involved into research-based activities. A medical administrator argued:

English is necessary for promoting research at national and international levels. In this age of research and exploration, Pakistani doctors are far behind. In my view, their weak English is responsible for their lack of motivation and backwardness in research related issues.

8.3. English Communication Skills

In regard to English communication skills, the respondents believed that teachers should follow only English language in the medical colleges. Therefore, English skills (i.e., listening, speaking, writing and reading) should be practiced with great emphasis. The respondents from teachers of medicine indicated that issues of listening, speaking, reading and writing skills of medical students should be properly dealt due to International status of English language. They explained that English language would not be learnt in a short while. In this respect, contents of English courses at high school level needed to be revised. Practice of English skills should be made necessary at all levels of education especially at primary and high school levels. The subject of English should be compulsory in the primary education system of the country. The respondents pointed out that generally, the students who had good core knowledge in medical college, were under-estimated due to their lack of proficiency in English language skills. Using English strictly in lectures, oral discussions and exams would lower self-confidence of such students hence, a skill based course of English before actual medical studies should be declared compulsory for all medical students. One teacher mentioned:

The visits or exposure to the places both at local and international levels, are point of need for medical doctors. This fact has drawn their attention towards the need of English at a very earlier stage therefore, medical doctors should keep themselves prepared in this regard. Seminars and workshops should be conducted to improve their listening skills. The
practice in reading and writing skills should be arranged. Spoken English should be encouraged. Unknown fears in regard to spoken English should be removed from the minds of students. At the time of trial, they should not be accountable in any respect and the teachers should not make their impression from trials. Thus, in my view, English language skills have always way to improvement as long as medical community is concerned.

A group of respondents from medical trainees believed that 95% of patients in Pakistan were Urdu speaking, Punjabi speaking and Pushto speaking. Interactive issues with patients required negligible level of English skills. Usually, the patients were unable to understand English language. However, for doctors’ own studies, presentations, workshops, class lectures, official correspondence and general comprehension of texts and materials, English was extremely important. Moreover, all the related materials on Internet and similarly in books were available in English thus excellent English skills were extremely important to deal with these matters successfully. Therefore, it was required to encourage reading, writing and especially speaking in English in medical college for the benefit of students. It would also enhance effective communication between students, doctors, patients and other people in public.

8.3.1. Writing Skill

Respondents from teachers of medicine pointed out weak writing skills of medical students. They believed that many medical students were unable to make a sentence or definition out of a scenario. This could be improved through repeated practices in various classes at appropriate times. In their view, the medical students generally had a poor aptitude towards writing lectures. Thus their expertise in English writing skills was not up to the mark. They faced hassles in jotting down appropriately what they had read. A teacher indicated:

…but writing in appropriate way is a difficult task for medical students. Medical students should write English in neat and precise manner hence whosoever reads their papers, should be able to understand easily. The most of examination system is based on MCQ’s type. Therefore, subjective type portion should also be included in examinations in order to develop their writing skills.
A medical administrator stated:

The medical doctors make a lot of mistakes during writing in English. They have to think many times before choosing appropriate words for writing in English. Firstly, they have to translate the content into Urdu in their minds then they would write it down and thus it takes much effort and time to draft a document. This procedure sometimes distracts them from the actual subject. The officers and staff are not trained as far as English language is concerned. I suggest for an English language-training course in which writing skills of medical doctors should be improved.

8. 3.2. Writing and Speaking Skills

The respondents suggested that English writing and speaking skills should be emphasized in medical colleges. They mentioned that the general English knowledge of medical students especially in speaking and writing was not very good. It needed to be addressed. They considered both spoken and written English as crucial components of medical education. Usually, students would fail to express themselves in novel situations for which practice in writing and speaking skills was greatly required.

8. 3.3. Writing and Listening Skills

A medical trainee revealed about difficulties in English writing and listening skills:

As we have to appear in the examination, we face difficulties in writing. Similarly, we attend seminars of international level there we face some listening problems. Thus we cannot comprehend the information given in seminars and presentations. Listening and its importance should be realized. Therefore, a course of English language should be introduced that can help us to improve our communication skills, especially English writing and listening skills.
8. 3.4. Speaking and Reading Skills

Mentioning the importance of English speaking and reading skills, a medical trainee pointed out:

English is a global language. It should be started early in medical colleges to deal with challenges of medical studies and profession. More stress should be laid on speaking and reading skills. English is mandatory for reading medical texts books. Moreover, majority feels hesitant in daily readings of English newspapers due to poor English language knowledge. Thus, lack of sufficient expertise in English language deprives us of abundant information that can otherwise be acquired in routine.

8. 3.5. Speaking Skill

The respondents indicated that medical students were facing huge troubles in regard to their English speaking skill. They highlighted several problems of the medical learners both in academics and profession. A group of respondents from teachers believed that students were not much interested in speaking English during their college life while pursuing medical studies. They would rather start speaking English later in their professional life. A teacher suggested:

Every student should be encouraged to develop speaking ability in English. Necessary steps should be taken to improve speaking skills of students. This problem should be dealt individually. Every student should be encouraged to participate in the skill based activities during different linguistic sessions. Students should be made strictly bound to attend spoken English classes regularly. Their progress should be monitored at intervals. Students have minor issues in their listening, reading and writing skills.

The respondents have argued that spoken English should be improved at school level. The students who join medical colleges, should have a sufficient knowledge in English language prior to their admission in medical college or before starting their
medical studies. Thus, English language instruction related to contents of medical studies and profession should be provided. In the medical college, students are selected on the basis of high merit but they would seldom talk in English. It seems that they have never been exposed to English language and thus joined medical college without having passed the subject of English at higher secondary school level. Whenever, the students are communicated in English language, first of all they would translate the sentences in Urdu and thus try to understand content. On the contrary, students would find it easier to understand written contents by means of reading.

Correct accent and pronunciation skills are equally important for medical students in order to attend seminars and similarly for presenting papers both at home and abroad. These skills would facilitate the listeners to understand the contents successfully. Correct accent of speaking was also important for using the names of medicines and diseases. Medical students should have adequate proficiency to impart effective, informative and persuasive speech contents. The sufficient practice in this area would help medical learners to speak in English language confidently. A teacher suggested:

Speaking English should be encouraged during class lessons. Lectures and question answers session should be in English only. It is necessary to improve the spoken English of students. Medical students are going to hold a very important role in society so they should have a full command over spoken English. They should be able to express themselves easily and thus people should understand them correctly. Medical students are of course much away from grammar and literature but they know well about medical terminologies. Need of the time is their grasp over English speaking skills which is really weak point and an area to be worked upon carefully.

Another teacher pointed out:

Students are mostly weak in English especially in speaking skill. They can read and write well. As long as the materials of medical books are concerned, the students can read them. But they face difficulty, when they have to use English in their daily life.
Medical trainees believed that students were generally able to understand and carry out their medical studies quite well. Apparently language was not a major hindrance in their way to academic pursuit. However, this was a hard fact that students did not have adequate ability to communicate well. They faced difficulties in speaking and thus putting into words how they felt like but they did not have any problem in understanding medical books. They lacked in common use of English speaking. Therefore, the practice of speaking in English should be encouraged among medical students and their colleagues. It was much important to overcome hesitation of foreign language. A medical trainee rationalized:

In my view, majority of medical students face difficulties in English language when they enter medical college especially in listening and speaking skills. The problem is communication barrier in Pakistani medical institutions as we are somewhat bound to speak local languages instead of English. Thus, on other behalf, the course perspectives are in English. My suggestion is that medical students should be preferred to speak in English in routine with students and teachers. So their spoken English may be improved by the time they get professional. We should encourage use of English language in day-to-day dealings/conversations.

There should be conversation classes among students and teachers. Dialogue method of teaching should be promoted. Similarly, most of the parents are uneducated therefore they are not able to communicate with their children in English. One should not be ashamed of speaking English if s/he would make mistakes while speaking. Similarly, the medical administrators perceived that medical learners had numerous linguistic deficiencies specifically in the area of spoken English. The administrators faced many problems in spoken English. They believed that English language refresher courses should be conducted for medical administrators to improve their spoken English. Hence most importantly, English speaking skill should be improved in present circumstances. The staff was not able to speak English fluently wherever required. A medical administrator believed:

I think, in medical field students of medical colleges require short courses of English, which could improve their speaking power and pronunciation. As an administrator and practitioner, I feel hesitant using grammar and
vocabulary both in written and spoken language. I think listening skills should also be improved along with speaking skills.

8.4. Presentation Skills/Seminars and Conferences

Teachers of medicine suggested that compulsory presentations of students on weekly/monthly basis should be held. Usage of English was very important for the medical students, as the presentations at national and international forums in future would require good command over English language. For this, topics of their medical syllabus should be assigned. They should be taught how to get effective help from Internet in this regard. A teacher rationalized:

It should be mandatory for the students to give presentations in English language especially in PBL classes in order to improve their skills of speaking English.

Medical trainees have indicated that seminars and conferences should be arranged for maximum exposure of language skills. Whenever, medical learners are exposed to seminars and presentations, they feel hassles in communicating appropriately with the audience. If they are home, they would switch over to native language if abroad, they would do hard struggle to cope with the English language issues. A trainee mentioned:

The trends for conducting frequent seminars, conferences and presentations in English language should be encouraged. It would build up the confidence of writing, speaking, and careful listening among students and medical professionals.

8.5. Vocabulary and Grammar

A group of respondents have remarked that medical students are good at learning their medical English activities but whenever they are asked any question in English, most of them would fail to express themselves rightly. It shows their low self-confidence in regard to their ability to speak in English because of poor vocabulary and grammar. A medical administrator pointed out:

English is a second language in our daily communication. For justified utility and effectiveness of English language, there is need to make efforts with regard to the improvement of the overall literacy level of our entire
community. Media awareness about English language usage and increased vocabulary use in daily-televised programs can improve English level proficiency. Slang words should be discouraged and their use should be discontinued in the television programs. The basics are weak. Programs for the improvement should be launched at various platforms. For fluency, the training sessions should be organized.

The respondents have indicated that majority of students and medical doctors are able to read medical literature however their understanding would take longer than required. A trainee mentioned:

 Whenever they are exposed to general knowledge books or English language spoken in media (e.g., TV news and entertainment channels), they fail to comprehend the exact meanings because of limited vocabulary. Their tenses are usually very weak. Hence, more help should be given to new medical students in learning medical terminology.

Similarly, another trainee wrote:

When I was a medical student mostly teachers used to deliver their lectures in English and Urdu language, which did not help to improve my English according to day to day requirements of education. As compared to English medium students, Urdu medium students feel more barriers in their English language ability particularly in grammar, pronunciation, medical terminology and presentations.

8.6. Problem Based Learning/Group Discussions

Respondents from teachers of medicine recommended PBL as one of the effective methods of learning English for medical purposes. It should be compulsory for the students to attend seminars and PBL classes. The presentation topics should be handled without the help of multimedia. It would certainly help to improve their English language proficiency. Communication among colleagues should be increased in English. A teacher suggested:
English language is important for medical students in all respects. Problem based learning should be adopted for English for medical purpose(s) courses. From the very start, students should be encouraged to learn English by all the four methods (i.e., listening, writing, speaking, and reading). In addition, they should be facilitated to discuss daily academic and social activities in English language within fifteen to twenty groups in English language classes.

The respondents from medical trainees suggested that group activities should be introduced for the improvement of English skills of medical students. A trainee mentioned:

Healthy conversation in English is a problem. PBL is very important for the improvement of English language in medical education. We have to deal with English within the medical community at national and international levels to gain confidence and recognition. Therefore, PBL should be conducted and thus improvement in attitude is very necessary. There should be more and more presentations of students. More interactive sessions should be encouraged as compared to lectures.

8.7. Translation Skills

Some of the respondents believed that medical books should be translated into Urdu so that their vocabulary could be increased. A medical trainee remarked:

Speaking and listening skills should be enhanced with the help of translation skills for professionals working in hospitals, as all our exams are conducted in English. Hence English is primary language to carry out medical education and its occupational tasks. Sometimes difficulties are encountered in communicating with patients and counseling them about their condition.
8.8. Students from Remote Areas

A majority of respondents from teachers mentioned that most of the Pakistani population was living in rural areas. Thus the students would not be able to achieve certain level of basic English education in regard to their comparison with students coming from urban areas. Either there should be single uniform teaching system all over the country or there should be compulsory English classes in medical schools. A teacher rationalized:

We have students coming to medical colleges from remote areas and far off cities. Therefore, they are having different levels of proficiency in English. Coaching of English language would be beneficial for the students who face problems in English language skills. In my opinion, the medical students from remote areas should have extra English language classes. Their confidence level is usually very low in this regard. Thus, they face numerous difficulties while dealing with English language skills during their medical studies.

8.9. Homogenous Medium of Instruction

The respondents indicated that basics of English skills should be taught at primary school level in an effective way. By the time, students enter in medical college they should not be facing any difficulty in understanding medical literature. There should be a strong basis at school level regarding English. English language instruction should be introduced from class-I, as there is Urdu medium of education up to class 10th in the government schools. English should be used as homogenous medium of instruction in schools and colleges everywhere in Pakistan in order to meet the international standards. A trainee pointed out:

Our primary education system should be carefully worked upon with regard to English language instruction. Once the primary education improves, the advanced level of education would automatically get better.

A teacher wrote:

I would suggest that all the students should be taught through a universal medium of instruction that is English from their school to college and university levels. English language needs are although high but standards
of education vary among different institutions. English language improvement needs standardization, encouragement and facilitation for elevating education standards within the medical community.

Similarly, a medical trainee stated:

The medical students and graduates of our country need improvement in English language, which can be best done by providing medium of English language instruction everywhere in the country (i.e., schools, colleges, public conversations etc.). Lectures in medical classes should be delivered purely in English. Question answer session should be in English.

The medical administrators have remarked that English language should be taught from the school level. It would enable students to have clear understanding while speaking, reading and writing in English.

8.10. English Courses for Medical Learners

Majority of respondents indicated that English courses for academic and occupational medical purposes should be added in medical studies. The students should be encouraged to develop their English skills by means of English language refresher courses especially for the students coming from the periphery, as they lacked confidence due to their inadequate proficiency in basic language. A teacher of medicine mentioned:

Different students have different levels of comprehension of English (basically owing to their different backgrounds). But I think that at the end of their medical education, an average medical student should be able to adequately read, write and talk in English. Therefore, a course of English should be introduced according to the communication needs of medical students.

Since English was the main medium of teaching and training in medical colleges, in Pakistan, it was mandatory that English proficiency in listening, speaking, reading, and writing skills should be up to the mark. Hence, a course of English should be introduced specifically for medical students. Similarly, foreign students should be offered admission in a medical college only once they have passed out International English Language
A class of English language is highly important to develop all four skills (i.e., listening speaking, reading writing). Proper attention should be given to speaking activities. The confidence level of students should be enhanced in this regard. Consulting medical journals, current affairs, newspapers, magazines and use of library should be made compulsory for all medical students.

The respondents have indicated that students get admission in medical college after having passed their F. Sc. examination. Generally, they are able to write, and read English but their proficiency is not sufficient to deal with the communication tasks in real situations. A minor course of English should be taught to the students before actual medical studies but it should not put extra burden of studies on the medical students. It should be tailored in such way that the students can achieve maximum learning and skills in the minimum time and with minimal effort. English language should be taught as a compulsory course in medical college. It should provide medical students with skill based coaching of English language. Therefore, they can pass out international examinations related to medical field/s for which TOEFL and IELTS are the prerequisites. A teacher of medicine believed:

In my view, IELTS courses should be mandatory during the first two years of medical studies. Moreover, medical English courses should be designed in such a way, as the students can learn interactively within their medical environment. In simple words, they need English language courses in which skills should be taught by means of medical activities and equipments.

Similarly, one of the teachers indicated:

The course of English should enable medical students to have perfect command over English grammar as they have to unite medical reports and thus English proficiency will create an overall impression. Non-verbal communication must also be up to the mark so that nurses, dispensers and doctors could understand their gestures during the operations or at any
other point. Executive English language courses should be conducted for both students as well as faculty members therefore they can equally learn good English and improve the basic grammar, vocabulary and pronunciation in a better and formal way.

Another group of respondents believed that medical learners’ expertise in reading and writing skills would make them familiar with the modernized literature related to medical science. Similarly, their technological skills required good knowledge of English. The medical doctors who apparently seemed to be proficient in their profession but they were not able to keep themselves updated with ever growing demands and challenges of day to day competitive knowledge of the world. In this situation, courses of English for the improvement of medical students would play substantial role for future progress of medical doctors. A teacher noted:

Foreigners should necessarily be taught English language courses 3-6 months before induction in medical college. Similarly, a language-based course of English was required for local students too in order to meet their medical academic needs.

A significant number of respondents pointed out that General English skills should be taught to the students of medicine that would improve their basic grammar skills, pronunciation, vocabulary and thus skills of reading, writing, listening and speaking. Such language activities should be introduced that would focus upon improving general English language proficiency of the medical students. Students needed English language for reading books. However, there was no need to use English when dealing with patients. A course of English was required for academic improvement of English. A teacher of medicine remarked:

Before entering medical college, students attend schools of varying backgrounds, like public and private sectors, English /Urdu medium. This situation makes the students incapable of dealing with challenging tasks of medical studies therefore, a homogenous course of English language at medical college is the need of time through which medical students can refine their basic language skills especially reading and writing. This course of English should basically focus on general English language topics whereas in the next stages it should particularly focus on medical
community and environment. Doctors should be able to communicate with other doctors in effective manner. They should be able to deal with their pronunciation issues and writing incompetence.

A medical trainee remarked:

The students of medicine had to compete at international platforms. They attend seminars of international level. Their medium of instruction is also English. The students do not have a good command on English language skills. There is a need to introduce an English language course for them.

8.10.1. Workshops/Refresher Courses

The respondents indicated that there should be workshops related to English proficiency. Counseling sessions and presentations should be arranged in this regard. One of the teachers mentioned that:

Many doctors these days are coming from non-English speaking countries (they graduated from non-English speaking countries). English proficiency test based on standard course of medical English contents should be made compulsory for them so that they should not find their future practical life difficult.

A medical trainee pointed out:

The teachers in the medical school most rottenly speak local languages in the class because the communication skills of doctors are not so good. The communication skills can be improved by improving English. Throughout MBBS studies, there should be one subject of English and also English competition exams and communication skills programs etc. should be started.

The medical administrators suggested that English courses based on speaking, listening, reading and writing activities should be frequently conducted. Medical and administrative correspondence (i.e., both verbal and written) should exclusively be done in English to deal with the departmental issues. Similarly, IELTS or other English proficiency courses (i.e., workshops and refresher courses of English) should be emphasized and thus arranged at hospital level.
8.10.2. Implementation of English Courses

The majority of respondents recommended that English language courses should be implemented in all medical colleges of the country. The medical English language instruction should start in the first year of medical college. Government should introduce basic English textbooks for medical students and appoint trained English language teachers in medical colleges. Research based activities should be encouraged at government level to uplift the standard of medical English courses. A teacher of medicine emphasized:

The adequate amount of English instruction should be provided to medical students before joining medical colleges to meet their academic and occupational English language needs. In my opinion, during all five years of MBBS, students should be given related English language instruction focusing on their medical subjects. A course of English should be transformed into language-based contents. Practice exercises related to field of medicine should be emphasized instead of teaching irrelevant literature.

According to a medical trainee:

A mixture of both general and medical English should be included in the first year of medical education. The expert teachers should be appointed in every medical college.

A medical administrator wrote:

Official writing skills should be guided and training courses should be arranged at medical colleges and hospitals. Staff trainings in terms of listening and speaking skills for front office managers should be carried out. Basic communication skills should be taught at lower offices for the supervision of their concerns. Therefore, special English language courses should be arranged.
8.11. Conclusion

In this chapter, the members of medical discourse community provided information related to English language communicative needs of medical learners in their academics and profession. They generously, highlighted the need of English courses for medical learners in their academic and professional fields. The responses revealed that English was highly important in medical studies. PBL was recommended at a larger scale. Amongst the English communication skills, majority of responses indicated that English speaking and writing skills were greatly required not only for medical students but also for medical teachers and professionals working in hospitals. Presentation skills/seminars and conferences were believed as auxiliary techniques for improving medical learners’ English skills. Poor vocabulary and grammar were other important areas, which need careful attention for improvement. A few number of respondents drew attention towards the need of translation techniques/skills for English language improvement. Similarly, the language inadequacy of students from remote areas has been pointed out. In addition, a homogenous medium of instruction was required for English language improvement of medical learners. English language courses with a special emphasis on medical content were recommended. However, contents from general English were also needed for establishing effective communication skills. Workshops and refresher courses were required. Majority of respondents suggested that English language courses should be implemented in the first year of medical college. A significant number of respondents suggested that burdenless courses of English language should be conducted during all five years of MBBS classes in medical colleges at countrywide level considering the individual needs of medical learners. They demanded for trained language teachers to teach English courses to medical students in Pakistan.
CHAPTER 9

CONCLUSION

The purpose of study was to recommend a course of English language for medical students studying in MBBS classes in the medical colleges of Pakistan. Therefore, this research investigated academic and occupational language needs of medical learners from Rawalpindi Medical College (RMC) Rawalpindi and Islamic International Medical College (IIMC) Rawalpindi.

9.1. Findings and Discussions

In this section, I will present overall findings of the study. The data were collected by means of four questionnaires designed for four different groups of informants from medical discourse community. Questionnaire 1, questionnaire 2, questionnaire 3, and questionnaire 4, were structured for students of medicine, teachers of medicine, medical trainees and medical administrators, respectively.

In order to explore needs of students of medicine regarding their academic and occupational settings in the medical field, it was necessary to gather data from the other related stakeholders of medical discourse community. The study investigates the expectations and perceptions of teachers of medicine who were essential part of medical college. Also they had a direct relationship with medical students on everyday basis. Similarly, the perceptions of medical trainees were important, since they were aware of both academic and professional English language needs of medical learners as recent medical graduates pursuing their mid-career positions in the medical field. The perceptions of medical administrators working at hospitals provided a detailed profile of their professional linguistic needs as practicing medical doctors.

Both qualitative and quantitative data were gathered to better obtain information about situational needs of the medical students in terms of English language. The quantitative data were analyzed by means of statistical analysis program called ‘SPSS’. The results were presented using descriptive statistics including frequencies and percentages. The ONE WAY ANOVA test was applied to compare means of perceptions
of different sample groups. Graphs were presented by using Microsoft Excel sheet. The qualitative data were analyzed by creating themes out of similar responses of respondents.

All questionnaires were divided into four parts. The first part (i.e., Part One) of the questionnaires was designed to obtain demographical information about respondents. The second part (i.e., Part Two) of questionnaires mainly focused on gathering information related to the frequency of usage of English in medical studies/profession. The third part (i.e., Part Three) emphasized obtaining the information with reference to usage and importance of English language skills (i.e., listening, speaking, reading and writing) in various academic and professional activities. The fourth part (i.e., Part Four) reviewed aspects related to analytical assessment of respondents regarding their existing level of proficiency in English language. In addition, it aimed at gathering information for drawing comparison between medical students’ English proficiency levels before and after joining medical college. It also posed question related to medical trainees’ perceptions regarding comparison of their English proficiency levels before and after having graduated from medical college. Lastly, this part focused on different themes related to attitudes and opinions of respondents with reference to learning English at medical college. The qualitative data were gathered from teachers of medicine, medical trainees and medical administrators.

For quantitative items, Likert scale and multiple choice questions were designed. For qualitative information, open-ended items were included to explore English language needs of the medical learners in their academic and professional settings. The main research question of the study was:

1. How is it important to recommend a course of English in the Pakistani medical colleges?

The overall findings related to all subsidiary research questions, which provide answer to the main research question, are recapitulated in the following discussion. Therefore, the first subsidiary research question was:
1. What is the frequency of usage of English in the academic and occupational settings of medical learners in the medical colleges of Punjab?

With regard to first subsidiary research question, details of the findings reveal that all groups of respondents perceive that English is extensively used in medical studies and profession as 73% respondents believed that usage of English in their medical studies and profession was from 71-100%. Since English is the medium of instruction in medical colleges of Pakistan therefore, it was expected to receive such responses that determine the importance of English on the basis of its usage in medical education. As long as communication in English is concerned, the respondents frequently needed English to communicate with teachers, medical students, medical administrators and paramedical staff (e.g., nurses).

The frequency of using English with patients and others including family and friends was found at the minimal level, as Pakistan is a multilingual country where English is used as a foreign language and it serves as lingua franca in the medical discourse community. Mostly people hesitate to communicate in English therefore, majority of patients who are not well educated, feel more comfortable while speaking to doctors in their regional languages. Most of patients even cannot speak well in Urdu, which is national language of Pakistan. The qualitative data supports this view as the respondents mentioned that medical doctors apparently do not need English to communicate with patients in Pakistan however, for their own academic and occupational excellence English is highly essential. It suggests that sufficient knowledge in English is required for medical learners to meet their language needs within the medical discourse community, as without having achieved required proficiency in English, medical learners cannot attain academic and occupational excellence in their field.

The medical students and administrators sometimes needed English to communicate with other health professionals according to majority of respondents (i.e., 34.6% respondents) yet they did not entirely deny the usage of English while communicating with other health professionals. It is obvious that there are innumerable field related terminologies and issues which can be best communicated only in English instead of any other language because of role of English as the medium of instruction in medical field. In medical doctors’ day-to-day life, code switching and bilingualism are frequently observed for speaking within the medial discourse community yet the written
and formal communication is usually carried out in English. This can be verified by the opinions of respondents, as 45.2% respondents believed that English was the key language that was mainly used during medical training courses at hospital. Very few medical administrators perceived that both English and Urdu were used during medical training courses at hospital. The teachers mentioned that they needed English very frequently in various activities regarding their own academic and professional careers. The overall findings indicate that medical learners use English very extensively in their academic and professional life. The second subsidiary question was:

2. What is the importance of English for the medical learners in their academic and occupational settings and for performing what kind of activities?

In response to the findings related to second subsidiary research question, majority of respondents regarded that it was extremely important for medical students to have high level of English proficiency to perform their medical studies and job effectively. For ranking of more important skill than others for medical studies and job, over all findings revealed that 65.5% respondents ranked reading as the most important skill, 49.06% respondents ranked writing skill as second important skill, 41.6% ranked speaking as the third important skill, 33.9% respondents ranked listening as the fourth important skill.

Regarding importance of high level of proficiency for various academic activities (e.g., class lectures, asking and answering questions in class, discussions on medical issues/class discussions, seminars/conferences/presentations, presenting oral reports, radio/T.V programs, use of medical terminology, reading textbooks/resource books, reading main idea of textbooks, textbooks details, translation of texts, taking notes from books, exams, reading medical journals/articles, graphs/charts/tables and term projects/assignments writing etc.) the findings revealed that having high level English proficiency was perceived important for medical students in order to perform these activities. Similarly, for professional medical activities (e.g., letters, memos, e-mails/faxes, research, forms/applications, reports, usage of computer, meetings, instructions/explanations etc.), English was perceived equally important to carry out these professional activities related to medical administrators’ jobs at hospitals. The administrators perceived English as moderately important while dealing with patients and colleagues. It was believed by majority of respondents (i.e., 88.2% respondents) that
sufficient competence in English for medical purposes was important for medical students. 90.7% respondents believed that English was important for future careers of medical students. English skills (e.g., reading to understand English textbooks, resource books and medical journals, carrying on conversations, writing research papers, presenting oral reports, understanding class lectures, writing examination answers, training to have listening/note taking skills etc.) were considered important for success in medical studies. The overall findings reveal that English plays a crucial role in academic and professional settings of medical field. The third subsidiary research question was:

3. What is the existing level of proficiency of students of medicine in listening, speaking, reading, and writing skills of English?

About existing level of proficiency in English skills, 56.9% respondents perceived that their proficiency in English listening skill was not adequate. 63.02% respondents indicated that their proficiency in speaking skill was not adequate. 30% respondents reported that their proficiency in reading skill was not adequate. 58.3% respondents felt that their proficiency in English writing skill was not adequate. Thus, English speaking skill was the first most required skill for medical learners, English writing skill was second most required, English listening was third most required and English reading skill was fourth most required skill among all four English language skills. Findings revealed that medical learners’ proficiency in regard to English language factors (e.g., vocabulary, grammar, listening comprehension, reading speed, pronunciation, comprehension of reading materials in general and in medicine, use of English in written exams, understanding of medical terminology etc.) was not perceived excellent. The overall findings indicate that the existing proficiency of medical learners is not up to the mark therefore, it is important that a course of English should be taught to them to improve their proficiency level in English at medical college as 58.7% respondents indicated that English courses taught to them before medical college were not relevant to their current academic and occupational needs of medical field. Whereas 23.6% respondents felt that English language courses taught to them before medical college were somewhat relevant to their existing language needs in medical college. It concludes that English taught to the medical students before medical college was not sufficient to meet their language needs in medical college since the courses of English taught to medical students before joining medical college were not based on the their medical needs. The majority of respondents (i.e., 79.8% respondents) believed that their proficiency in English did not improve if they
compared it with their proficiency level before and after joining medical college. 40.5% respondents believed that their proficiency in English became worse and 33.6% respondents felt that their proficiency remained about the same after joining medical college. The reason is that medical students are not taught any courses in medical college and thus the amount of English instruction before medical college does not cater to their existing as well as future needs. The overall findings provide strong grounds for recommendation of course of English in medical colleges of Pakistan as the existing proficiency level of medical learners is not adequate to meet their existing and future language needs in academic and occupational settings of medical field. The fourth subsidiary research question was:

4. What are the perceptions of different groups of medical discourse community regarding learning English at medical college?

The majority of respondents agreed that both general purposes English and medical purposes English were important. Based on the opinions of majority of respondents it is concluded that medical English is more important for medical students as compared to general English. The findings indicated that medical learners agreed to the need of initiating medical English in the first year of medical classes and thus the materials in medical students’ English courses should be relevant to the medical field. Majority of respondents disagreed that the amount of English instruction given to medical students before joining medical college was adequate to meet their academic and occupational English language needs. For teaching course of English, respondents believed that English language instructors should use a method in which students could learn English interactively in groups therefore they suggested to adopt problem based learning (PBL) in English for medical purposes courses. Findings indicated that respondents agreed that the medical students should have the language capacity to read English language medical sources in the library. Similarly, in order to make use of the medical sites on the Internet, a high level of English was necessary. Translation skills were perceived important for medical studies of medical students to develop overall language competence similarly, reading original English texts were important for medical students.
By reviewing overall findings, the study suggests that recommendation of course of English is highly important for medical students as English is frequently used both in medical studies and profession. English plays an extremely important role for carrying out various academic and occupational activities in the medical field of medical learners. For this purpose, proficiency of medical learners has not been perceived excellent. They require productive skills more as compared to receptive skills of English. The respondents strongly agree to the need of course of English at medical college suggesting it to be initiated in the first year of medical college. The study indicates that medical learners are aware of importance of medical English in their field and they can differentiate well between purposes of general and medical English therefore, they regarded medical English as more important than general purpose English. The qualitative data also substantiate quantitative results in this regard. One reason for agreeing to the need of course of English at medical college could be that when new entrants join a medical college, they face numerous linguistic problems regarding listening, speaking, reading and writing of English in medical education with reference to various issues. They have to put extra efforts to understand medical jargon. Furthermore reproducing ideas into written and spoken forms in meaningful way becomes difficult for them. It takes them a long time to adapt within the specific linguistic environment of medical education. If they are taught a course of English prior to or simultaneously when they get formally/actually involved in medical studies, they might be able to deal with linguistic challenges easily. Both the contents of general and medical English would facilitate them for performing their medical studies more proficiently and accurately.

The study suggests that in case of having any courses of English introduced for medical students, the materials should be relevant to medical field. English courses should provide extra help to carry out medical studies that is only possible when the courses are specifically designed focusing on the needs of medical students within a certain environment of medical field. The majority of respondents strongly disagree that the amount of English taught to medical students before joining medical college is adequate to meet their academic and occupational English language needs. This is explicit here that a considerable amount of work has been done in the area of EMP whereas this study is a beginning point with regard to needs analysis of medical learners in Pakistan with an intention to recommend a course of English for its implementation in the medical colleges. The findings of present study unfold the need for ample research in the field of
EMP in Pakistan at various levels and thus for designing of such specific courses of English that could be taught either in medical colleges or at higher secondary school level of education prior to getting admission in a medical college.

However, it may not be possible for the government of Pakistan to design materials and courses of medical English in pre-medical education at F. Sc. level due to certain financial and logistic constraints. Similarly, trainings of instructors of medical English at this level may not be viable specially when there are no adequate resources available to improve situation of general English in the country. Hence, it appears to be more appropriate and effective to initiate specific medical English training courses in medical colleges where students in specified number, qualify for merit to get admission. In this study, it has been further found out that English language instructors, if appointed in medical colleges to deal with medical English courses, should use such teaching methods by which students can learn English interactively in groups. This is important for two reasons. Firstly, the students would get maximum exposure related to English language that would contribute to their confidence level within their own medical discourse community. Secondly, students would spend their maximum time in learning medical knowledge with the help of English language learning activities. For this purpose, all respondents agree that problem based learning should be adopted as a preferred method of teaching medical English. Students or group/s of students could be assigned different medical activities or problems and thus can be advised to solve them only by communicating in English. Qualitative data have vigorously substantiated this idea. The majority of respondents feel that medical students should have the language capacity to read English language medical sources in the library. Yet there are significant number of respondents who believed that it is not important for medical students to have high English language capacity to read and comprehend materials available in library. This issue can be researched greater in depth with regard to reading skills hence to investigate in further by focusing on skimming and scanning techniques of reading skill. Similarly, it is important to know whether the students have sufficient adequacy to read English language medical sources in library. Other methods of needs analysis can be employed for an elaborated study. The respondents agree that it is important for medical learners to have a high level of English in order to make use of medical sites on Internet. This could be essential with respect to many perspectives but the most significant could be that almost all-medical literature, books, magazine, journals, modern research and
latest treatment techniques are present in English on Internet. In addition, it is much convenient to access Internet these days for consulting any kind of medical materials, which is not possible without the help of good proficiency in English language that serves as the sole channel in this situation.

It can be deduced that contents of medical English course should include such effective strategies that would enable medical learners to consult medical websites on Internet in successful way helping them to imbibe maximum knowledge with minimum effort and time. The respondents agree that translation skills are important to develop learners’ overall language competence for medical studies. It can be deduced that Urdu is the first language of medical learners in Pakistan; therefore translation skills can help in abridging their linguistic incompetence with regard to English. This view has also been strengthened in qualitative data. The respondents strongly agree that it is important for medical students to be able to read the original English texts.

It can be inferred that consulting original English texts are necessary for acquiring rich knowledge in medical studies. A trend has been seen in Pakistan that students do not prefer to get help from original English texts in their medical studies for they do not have adequate proficiency to understand the contents written in original medical texts. Moreover, they want to pass out the examination for which original English texts are difficult to comprehend. It requires a lot of effort and time to deal with original English texts that can cause failure in examination. This is particularly a great problem for the students who belong to remote areas and come from such schools where medium of instruction is either Urdu or other local/regional languages. Similarly, there are a good number of medical students who despite having studied from English medium schools, do not have appropriate proficiency in English. Nevertheless, being aware of importance of original English texts in medical education, it is not always possible for medical students to read original English texts. Their linguistic inadequacy is the inherent reason, which bars their progress in higher education at national and international levels.

The overall findings suggest that there is a need of English course in medical colleges of Pakistan. The course of English however, should be specifically tailored with an aim to meet academic and occupational medical needs of learners. Importance of English is felt in depth for which the existing level of adequacy in English language skills to deal with listening, speaking, reading and writing issues is not up to the mark. In this
situation, it is essential to fill the gap between existing and required levels of linguistic inadequacies of medical students keeping in view their academic and occupational needs. For the reasons aforementioned, a course of English integrated with all four skills (i.e., listening, speaking, reading and writing) should be tailored with its main emphasis on medical activities and thus specific teaching methodologies should be adopted in this regard.

9.2. Recommendations for Future Study

The following suggestions and recommendations can be incorporated in regard to devising a course of English for medical purposes:

1. The study suggests that medical students are not satisfied with their current English language proficiency as there are no courses of English taught in medical colleges. The amount of English given to them at higher secondary level of education (i.e., F. Sc. Pre-medical studies) is not sufficient to cater to their English language needs at medical college. English has acquired a status of lingua franca in the medical field. A grave need of EMP course has been felt in this research. The course should target specific needs of medical learners in Pakistan. The cooperation of various related groups under the patronage of PM & DC is critical to successful EMP course design. A robust collaboration of English language instructors, English language text material designers, ESP practitioners, teachers of medicine, medical administrators and other related groups of medical discourse community is necessary to reach a mutual consensus in this regard.

2. The previously designed ESP course contents at national and international levels related to different fields (e.g., science and technology, business, hotel management and tourism) can lend invaluable help in regard to EMP course design.

3. EMP Research Center can be established in liaison with International communities by PM & DC and Higher Education Commission of Pakistan.

4. The students coming from different mediums of instruction at school level may have different English language needs in a medical college. In addition, their diverse linguistic, cultural and regional backgrounds also complicate the situation.
The needs based course of English in medical college can play remedial role in such situation.

5. The findings of study reveal that productive skills are more required than receptive skills. The content design should mainly concentrate on English speaking and writing skills. The actual communicative situations restricted within the frame of medical profession should provide medical learners with optimum impetus for effective learning of these skills. Since the results show a marginal difference between receptive and productive skills in terms of English language needs of medical learners, the course contents should address all four skills due to their integrative roles.

6. The study reveals that speaking is rated as the most importantly desired area of the medical students. The medical students encounter tremendous challenges regarding their academic and occupational needs in terms of English speaking skills. Frequent practice in speaking skills during various academic and occupational activities would necessarily help medical learners to deal with their future careers. An intense need for incorporating contents of speaking skills in EMP curriculum calls for appropriate attention. The implementation of EMP course books and similarly the use of audio visual aids and thus the establishment of language laboratory can reinforce speaking skills of medical students.

7. The needs of students may vary in each class of MBBS studies. The related language contents can be devised in EMP curriculum considering individual English language needs of the students according to their respective levels of study in medical college.

8. In Pakistan, medical doctors do not frequently need English to communicate with patients and other health professionals. Yet English is used in several activities like prescription/report writing, reading manuals of medical instruments and discussing about medical issues with patients and other health professionals therefore, such perspectives should be concentrated while devising a course of EMP.
9. The study suggests that course of English for academic medical purposes (EAMP) and English for occupational medical purposes (EOMP) should enable medical learners to comprehend class lectures, participate during question answer sessions, discussions on medical issues/class discussions, presentation of oral reports, learning medical terminology, understanding textbooks/resource books, medical journals, articles, writing term projects/assignments, going through textbook details, confidently passing out oral and written exams and dealing with research papers. These courses should enrich medical learners in vocabulary, grammar, reading proficiency for general as well as medical materials, skills for organizing of thoughts while writing creatively and presentation skills both at local and international levels. In addition, the course should inculcate persuasive and effective communication skills in the medical students hence they can confidently participate in field related activities (e.g., carrying on general conversations, training to have listening/note taking skills, confident exposure with successful interview methods etc.). The language skills should enable medical professionals to follow the literature of their own specialty specifically. Moreover, it should facilitate medical learners in different important issues (e.g., in order to keep track of the literature about new techniques and treatments in medicine, writing of laboratory reports, participating in professional training courses successfully, giving instructions about patients, taking case histories, dealing with colleagues, phone conversations, memos, letters, forms/applications, meetings, e-mails/faxes, conducting research activities, using of computers and explanations etc.).

10. The EMP course should incorporate contents from general English (GE) to provide students with due assistance in terms of learning medical English to fulfill their academic and occupational needs.

11. Both general and medical English should start in the first year of medical college. These courses can be introduced as pre–sessional/preparatory courses prior to have medical students actually involved in their medical studies.

12. The materials in English courses should be specifically designed thus the students can easily adapt according to actual medical situations. It would save time and efforts of medical learners making them free from additional academic pressures during their studies. Moreover it would help in keeping their interest and
motivation level intact for learning English language.

13. As the findings suggest that the amount of English instruction given to medical students before joining medical college is not sufficient. Further needs analyses research on formal grounds can be conducted to explore specific areas regarding language needs of medical students for a proper design of English language course. ESP research at larger scale can be conducted at countrywide level where ESP practitioners (i.e., teachers and researchers) can be allowed to keep regular records of academic and occupational needs related to English language of the medical students. This practice may help in devising future teaching plans and task ideas for design of effective course contents. The professors of medicine can help in providing materials (e.g., publications, periodicals, books, contents, journals and magazines) for adapting to different strategies.

14. The English course should enable medical learners to get maximum advantage out of medical sources available in the library. They should be able to consult medical and general English dictionaries, encyclopedias, journals, articles, magazines, reports, abstracts, and references by applying such viable strategies that could help them acquire maximum learning and knowledge in their field with the least effort and time.

15. Course should enable medical learners to make use of medical sites on Internet with proficient language ability. They should be able to understand the widest range of materials available on Internet using effective language techniques.

16. There should be an essential component of translation skills by means of which students can efficiently communicate in native language with patients, nurses, pharmacists and other paramedical staff. In addition, translation skills should help them understand concepts of medical contents.

17. The course should facilitate learners for reading original English texts. The tradition of reading original English texts is rarely observed in Pakistan. As mostly the students want to pass out examination and it seems arduous to invest energies uselessly in reading original English texts due to having inadequate proficiency in English.
18. The English language courses should be structured on the basis of target communicative situations employing communicative use of language instead of laying undue emphasis on cramming and memorization of rules of grammar and language structures.

19. Correct accent of speaking and pronunciation techniques should be included to improve phonological deficiencies of medical learners. It would lavishly aid them to present in seminars, conferences and workshops. In addition, it would make it easier for others to understand names of medicines and diseases.

20. The findings suggest that there are similarities and dissimilarities between academic and professional needs of medical learners therefore, the language courses should be tailored in an order to prioritize individual needs of the learners keeping in view different stage/s of their medical careers. Their individual needs can be different (e.g., as student, teacher, trainee, practitioner, and administrator etc.) according to their multiple roles in medical discourse community. Hence, a thoroughly generic course of English cannot be recommended.

21. A further research can be carried out at varied levels of medical education and career. For example, course contents can be devised aiming at target situation needs of medical students related to each professional of MBBS studies. The course of English may be divided between pre-clinical and clinical groups according to their specific needs. Similarly, for different fields of medical profession, specialized language contents can be included.

22. There should be appropriate evaluation of English language abilities of medical students both during and at the end of English course thus to monitor their progress in language proficiency at regular intervals. For testing and evaluation system, research based activities should be integrated professionally in the proposed language program.

23. The role of EMP teacher is crucial for imparting nature and purpose of EMP course while teaching medical students in terms of their improvement in English language proficiency.
24. Training of EMP teachers is a costly task for Pakistani government yet it can be sorted out by giving expert trainings to ESP practitioners in medical field to ensure that teachers get adapted with the concepts of medical environment and thus can further design and implement EMP curriculum.

25. The course of English for medical purposes, should not only meet the specific needs of local Pakistani students but also that of foreign students studying in Pakistani medical colleges.

26. Language course should have standards equivalent to international language testing systems (e.g., IELTS and TOEFL) as medical graduates are expected to possess excellent English language proficiency to uphold competitiveness in the global marketplace.

27. Regular workshops and English language refresher courses can be introduced at hospital level regarding administrative and professional medical needs of learners.

28. The course contents of English for medical purposes should equally take insights from general English as the findings reveal that a majority of medical learners feel troubles while dealing with general English reading, writing, listening and speaking skills in their daily routines. They find it hard to understand English for T.V/radio programs, newspaper readings and conversing with foreigners.

29. Problem based learning and interactive methods of teaching English can help in building up students’ self-confidence and their problem solving abilities by concentrating mainly on medical knowledge. Thus, PBL should be encouraged by including effective techniques to increase learners’ motivational levels.

30. There should be trained English language instructors recruited for teaching medical students and medical professionals. Untrained teachers would not be able to bring fruitful results in terms of effective teaching and learning. The teachers of medicine can also be given special trainings in order to teach English to the medical students. This would help in saving extra cost and budget applied to the trainings of language teachers outside the medical discourse community. However, for their trainings, it is necessary to carry out further research to design
specific materials and methodologies.

31. The courses of English should address/identify language needs of medical students and teachers simultaneously in order to develop effective mutual communicative relationship between them in the formal/classroom situations.

32. It should be declared mandatory for medical learners to communicate in English within the medical discourse community. Since language is skill, the more practice would bring the better expertise to medical students and professionals.

33. The courses of English for medical purposes should be fun learning without having exercised an impression of putting additional burden on medical learners in their day-to-day routine.

9.3. Directions for Further Research

1. This needs analysis study has played an important role in Rawalpindi Medical College and Islamic International Medical College. Similarly, it has opened various avenues for further needs analyses research in other medical contexts at numerous levels. The results can be generalizable regarding language situations of other medical colleges of Pakistan. In addition, EMP studies can be carried out with respect to cultural, regional and other linguistic perspectives.

2. Further research can be recommended with regard to various angles both in academic and professional medical fields. The areas like course design, material development, teaching methodologies, course evaluation and assessment strategies can be researched. Need for improvement of different skills and sub-skills can be explored in larger framework. Problem based learning models can be explored and evaluated within the spectrum of medical discourse community. In order to conduct further needs analyses studies in medical academic and professional fields, case studies can be carried out by getting learners engaged into topics of real medical situations allowing them to employ English as source of communication. Since needs analyses is a continuous process (Graves, 2000; Hutchinson & Waters, 1987; Nunan, 1988) therefore, further research can be held after the implementation of a course of English for medical purposes in order to keep updated with possible future changes related to the needs of medical students.
3. Similar studies can be held in other medical colleges of Pakistan situated in different regions and provinces of country. Comparison and contrasts can be drawn in this regard.

4. This research has provided both quantitative and qualitative data with reference to specific needs of medical learners in their academic and professional fields. Different groups of population have been researched in this regard yet the students of medicine from first year of medical college are not included in this study. Their needs can be identified in further research to know as to what extent their language needs coincide with the findings of this study. Similarly research can be carried out regarding needs of teachers of medicine and other health professionals who interact with medical students /doctors at certain periods of their careers.

5. If a course of English is implemented after this needs analysis study, the course can be evaluated in further research to test relevance and efficacy of contents and thus methodology to be followed.

6. A research can be conducted in regard to exploration of specialized knowledge of EMP instructors and their training materials.

7. Analysis of productive versus receptive skills in EMP context can be investigated in future study. Various other perspectives as code switching, bilingualism, multilingualism, gender, provincial and regional differences can be probed at great length in relation to EMP needs analyses studies.

8. There is a majority of foreign students studying in Pakistani medical colleges; a research can be carried out regarding their specific needs and thus a comparison or contrast can be drawn between local and foreign students. Similarly, further research can explore various similarities and differences regarding the needs of medical learners pursuing different fields of specializations.
9.4. Conclusion

Medical students and professionals in Pakistan have several reasons to learn English at medical college. They need English in their academic and occupational settings to cope with various tasks (e.g., to understand class lectures, reading books, magazine, journals, research, speaking to teachers, administrators, foreigners, presenting at seminars, to make use of expanding and increasingly important database available on Internet and reading original texts). With the advent of globalization, English has taken status of lingua franca in the international medical community. A large number of medical students go to foreign countries in pursuit of higher education and trainings, where the sole means of communication and learning is English. This situation favors a strong case of EMP course recommendation. There have been no courses of English established in Pakistani medical colleges despite the strong needs of medical students and professionals. One of the reasons could be non-availability of EMP teachers and their trainings. If the students of medicine are taught a course of English for academic and occupational medical purposes during their first two years of study in medical college, their satisfaction and performance level can be improved to great extent in the later years of MBBS study. The students are required good proficiency in English in their professional life, as knowledge of English equips them with ability to deal with their professional challenges. The amount of English taught to the medical students before joining medical studies is not adequate to cope with their academic and occupational needs in medical education. In addition, general English is not in exact alignment with needs of medical students. An EMP course is in high demand and thus calls attention of the government and related medical advisory bodies for its urgent implementation in the medical colleges of Pakistan. The EMP course should be task based similarly; PBL should be preferred method of teaching EMP course. The contents and methods should be further researched by carrying out future needs analyses studies. Also the EMP courses should integrate materials from all four language skills emphasizing the academic and occupational perspectives of medical education.
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APPENDIX A

List of Themes for Questionnaires

Demographical Information:

- Gender
- Age
- Class / Teaching post/ Current position/ Medical administrative post
- High school where students studied

Frequency of Usage of English:

- Perceived percentage of using English
- Communication in English with teachers, administrators, students, patients and others
- Frequency of usage of English with other health professionals
- English for academic and professional purposes of teachers

Importance of English:

- Importance of English for medical studies and job
- Ranking English language skills (i.e., listening, speaking, reading, writing)
- Importance of English for future careers in medical field
- Importance of English for medical purposes
- Importance of English language skills for following activities:
  1. Academic activities for students of medicine
     A. Class lectures
     B. Asking questions in class
     C. Answering in class
     D. Discussions on medical issues/class discussions
     E. Seminars, conferences, presentations
     F. Presenting oral reports
     G. Radio/T.V programs
     H. Medical terminology
     I. Text books/resource books
     J. Main idea of text books
     K. Text books details
     L. Translation of texts
     M. Taking notes from books
     N. Exams (Oral and written)
     O. Medical journals/articles
     P. Graphs/charts/tables
     Q. Term projects/assignments
     R. Others
2. Professional activities for medical administrators
   A. Dealing with patients
   B. Dealings with colleagues
   C. Phone conversations
   D. Letters
   E. Memos
   F. Emails and faxes
   G. Research
   H. Forms/applications
   I. Reports
   J. Using computers
   K. Meetings
   L. Instructions/explanations
   M. Others

• Importance of following English skills for success in medical studies:
  i. Reading to understand English textbooks, resource books and medical journals
  ii. Presenting oral reports
  iii. Carrying on conversations
  iv. Writing research papers
  v. Understanding class lectures
  vi. Writing examination answers
  vii. Training to have listening/ note-taking skills
  viii. Others

Analytical Assessment:

• Existing level of proficiency in the English language skills (i.e., listening, speaking, reading, writing)
• Rating proficiency in English for the following factors:
  1. Vocabulary
  2. Grammar
  3. Listening comprehension
  4. Reading speed
  5. Pronunciation
  6. Comprehension of reading materials in general
  7. Comprehension of reading materials in medicine
  8. Use of English in exams
  9. Understanding of medical terminology
  10. Others

• Relevancy of English language courses with medical needs before entering medical college
• Comparison of English proficiency before and after joining medical college
• Comparison of English proficiency after graduating from medical college
Opinions about learning English at medical college:
1. Importance of General Purposes English
2. Importance of Medical Purposes English
3. General English instruction from 1st year
4. Medical English instruction from 1st year
5. Relevancy of the materials in medical students’ English courses with medical field
6. Adequacy of the amount of English instruction before joining medical college
7. Use of Interactive method by English language instructors
8. Use of Problem based learning (PBL) for EMP courses
9. Language capacity of medical students to read the English language medical sources in library.
10. High level of English in order to make use of the medical sites on the internet
11. Importance of translation skills
12. Importance of medical students to read the original English texts
APPENDIX B

Faculty of Advanced Integrated Studies & Research
National University of Modern Languages H-9, Islamabad
Needs Identification Questionnaire
Designed by Mahwish Mumtaz Niazi
Supervised by Brig® Dr. Aziz Ahmad Khan

Questionnaire 1
Questionnaire to Gather Information Regarding Needs as Perceived by
Students of Medicine

The questionnaire is part of doctoral dissertation. It intends to gather information for the identification of English language needs of the learners of medicine in Pakistan and subsequently would be reported with recommendations to improve the standard of medical education in Pakistan. The findings of research will lead to recommending an English for Specific Purposes (ESP) Course designed on the basis of specific needs of medical learners.

For this research, four questionnaires have been designed to gather information regarding English language needs as perceived by the four important members of discourse community (i.e., Students of medicine, teachers of medicine, medical trainees and medical administrators) in the field of medicine. This questionnaire is divided into four parts and consists of four pages. It is designed to be answered within twenty minutes. Instructions are provided for each question. Please note that you do not have to write your name. Please note that by completing this questionnaire you agree that the researcher is allowed and permitted to use the information that you provide for research and publication purposes only. The researcher will answer any questions about the research, now or during the course of the project, and can be reached by email at: mahwishlinguist@hotmail.com

I am grateful for your time and effort in completing the questionnaire.

Thank you

Mahwish Mumtaz Niazi
PART ONE: DEMOGRAPHICAL INFORMATION

Please check (✔) the appropriate box.

1. Gender: ☐ Male ☐ Female
2. Age___________________
3. In which class in the medical college are you?
   ☐ 2nd year ☐ 3rd year ☐ 4th year ☐ 5th year
4. Which of the high schools have you studied from?
   ☐ Urdu medium ☐ English medium ☐ O level ☐ Other (please specify)____________

PART TWO: FREQUENCY OF USAGE OF ENGLISH

5. What is the perceived percentage of using English in your medical studies? Please check (✔) one box.
   ☐ 91-100% ☐ 71-90% ☐ 51-70% ☐ 31-50% ☐ No opinion
6. With whom do you communicate in English? You may check (✔) more than one boxes.
   ☐ Teachers ☐ Administrators ☐ Students ☐ Patients ☐ Others
   (Please specify)____________________
7. How often do you need English to communicate with other health professionals (e.g., Nurses, Paramedical staff etc.) during medical studies? Please check (✔) one box.
   ☐ Always ☐ Often ☐ Sometimes ☐ Rarely ☐ Never

PART THREE: IMPORTANCE OF ENGLISH

8. How is it important for you to have a high level of English proficiency to perform your studies effectively? Please check one (✔) box.
   ☐ Extremely important ☐ Important ☐ Somewhat important ☐ Not important ☐ No opinion
9. Which of the following English skills do you think are more important than the others for medical studies? (Rank them this way: 1 = Least important; 4 = Most important. Rank all.)
   ☐ Listening ☐ Speaking ☐ Reading ☐ Writing
10. How important do you think English is for your future careers in the medical field? Please check (✔) one box.
    ☐ Extremely important ☐ Important ☐ Somewhat important ☐ Not important ☐ No opinion
11. How is it important for you to have sufficient competence in English for medical purposes? Please check (✔) one box.
12. How important is it for you to have a high level of English proficiency when performing the following activities? (Please circle the appropriate number).

<table>
<thead>
<tr>
<th></th>
<th>Listening</th>
<th>Speaking</th>
<th>Reading</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Lectures in class</td>
<td>1 2 3 4 5</td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>B</td>
<td>Asking Questions in class</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>C</td>
<td>Answering in class</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>D</td>
<td>Discussions on medical issues/class discussions</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Seminars, conferences, presentations</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>F</td>
<td>Presenting oral reports</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>G</td>
<td>Radio/T.V programs</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Medical terminology</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I</td>
<td>Text books/resource books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Main idea of text books</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>K</td>
<td>Text books details</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>L</td>
<td>Translation of texts</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>M</td>
<td>Taking notes from books</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>N</td>
<td>Exams (Oral and written)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>O</td>
<td>Medical journals/articles</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>P</td>
<td>Graphs/Charts/Tables</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Q</td>
<td>Term projects/assignments</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>R</td>
<td>Others (Please specify)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
13. Which of the following English skills are important for your success in medical studies? (You may check whatever is appropriate.)

(i)☐ reading to understand English textbooks, resource books and medical journals
(ii)☐ presenting oral reports  (iii)☐ carrying on conversations
(iv)☐ writing research papers  (v)☐ understanding class lectures
(vi)☐ writing examination answers  (vii)☐ training to have listening/ note-taking skills
(viii)☐ Others (please specify)  

PART FOUR: ANALYTICAL ASSESSMENT

14. How do you describe your existing level of proficiency in the following English language skills? Please check (✓) one box for each skill given below.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Read the following factors and rate your proficiency in English language according to the scale given below. (Please circle the appropriate number)

<table>
<thead>
<tr>
<th>Factor</th>
<th>1=Poor</th>
<th>2= Below Average</th>
<th>3=Average</th>
<th>4=Very good</th>
<th>5= Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening comprehension</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading speed</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronunciation</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehension of reading materials in general</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehension of reading materials in medicine</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of English in exams</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of medical terminology</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (Please specify) ………………………………...</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. How were the English language courses relevant to your medical needs before entering medical college? Please check (✔️) one box.

☐ Extremely  ☐ A lot  ☐ Somewhat  ☐ A little  ☐ Not relevant at all

17. How do you compare your English language proficiency before and after joining medical college? Please check (✔️) one box.

☐ Much worse  ☐ Somewhat worse  ☐ About the same  ☐ Somewhat better  ☐ Much better

18. The following questions aim to identify your opinions about learning English at medical college. Use the following scale for questions from 1 to 15. (Please circle the appropriate number).

<table>
<thead>
<tr>
<th>1=Strongly disagree</th>
<th>2= Disagree</th>
<th>3=Not sure</th>
<th>4=Agree</th>
<th>5=Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General purposes English is important for medical students</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>English for Medical Purposes is important for medical students.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>General English instruction should start from 1st year of medical classes.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Medical English instruction should start from 1st year of medical classes.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The materials in medical students’ English courses should be relevant to the medical field.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>The amount of English instruction given to medical students before joining medical college is adequate to meet their academic and occupational English language needs.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>English language instructors should use a method in which students can learn English interactively in groups.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Problem based learning (PBL) should be adopted to use in English for medical purposes courses.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>The medical students should have the language capacity to read the English language medical sources in the library.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>In order to make use of the medical sites on the internet, one should have a high level of English.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Translation skills are important to develop learners’ overall language competence for medical studies.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>It is important for medical students to be able to read the original English texts.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your participation
APPENDIX C

Faculty of Advanced Integrated Studies & Research
National University of Modern Languages H-9, Islamabad
Needs Identification Questionnaire
Designed by Mahwish Mumtaz Niazi
Supervised by Brig® Dr. Aziz Ahmad Khan

Questionnaire 2
Questionnaire to Gather Information Regarding Needs as Perceived by Teachers of Medicine

The questionnaire is part of doctoral dissertation. It intends to gather information for the identification of English language needs of the learners of medicine in Pakistan and subsequently would be reported with recommendations to improve the standard of medical education in Pakistan. The findings of research will lead to recommending an English for Specific Purposes (ESP) Course designed on the basis of specific needs of medical learners.

For this research, four questionnaires have been designed to gather information regarding English language needs as perceived by the four important members of discourse community (i.e., Students of medicine, teachers of medicine, medical trainees and medical administrators) in the field of medicine. This questionnaire is divided into four parts and consists of four pages. It is designed to be answered within twenty minutes. Instructions are provided for each question. Please note that you do not have to write your name. Please note that by completing this questionnaire you agree that the researcher is allowed and permitted to use the information that you provide for research and publication purposes only. The researcher will answer any questions about the research, now or during the course of the project, and can be reached by email at: mahwishlinguist@hotmail.com

I am grateful for your time and effort in completing the questionnaire.

Thank you

Mahwish Mumtaz Niazi

PART ONE: DEMOGRAPHICAL INFORMATION
Please check (✔) the appropriate box.

1. Gender (a) ☐ Male (b) ☐ Female
2. Age

3. Please mention your teaching post-----------------------------------------------
4. Any administrative post? (a) ☐ Yes (b) ☐ No

PART TWO: USAGE OF ENGLISH

5. What is the perceived percentage of using English in medical studies? Please check (✔) one box.

☐ 91-100%  ☐ 71-90%  ☐ 51-70%  ☐ 31-50%  ☐ No opinion

6. With whom do the medical students communicate in English? You may check (✔) more than one boxes.

☐ Teachers  ☐ Administrators  ☐ Students  ☐ Patients  ☐ Others

(If others, Please specify-----------------------------------)

7. How often do the medical students need English to communicate with other health professionals (e.g., Nurses, Paramedical staff etc.) during medical studies? Please check (✔) one box.

☐ Always  ☐ Often  ☐ Sometimes  ☐ Rarely  ☐ Never

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

(i) ☐ While participating in seminars presented in English both at home and abroad

(ii) ☐ In order to follow the literature of my own specialty, specifically (iii) ☐ Phone conversations

(iv) ☐ In order to keep track of the literature about new techniques and treatments in medicine in general

(v) ☐ To understand the manuals of medical equipment (vi) ☐ Delivering lectures

(vii) ☐ To write laboratory reports (viii) ☐ Communicating with patients (ix) ☐ Memos

(x) ☐ Professional training courses (xi) ☐ Instruction about patients (xii) ☐ Letters

(xiii) ☐ Medical prescriptions (xiv) ☐ To take notes during lectures (xv) ☐ Meetings

(xvi) ☐ Taking case histories (xvii) ☐ Others, please specify-----------------------------------

PART THREE: IMPORTANCE OF ENGLISH

9. How is it important for the medical students to have a high level of English proficiency to perform their studies effectively? Please check one (✔) box.

☐ Extremely important  ☐ Important  ☐ Somewhat important  ☐ Not important  ☐ No opinion

10. Which of the following English skills do you think are more important than the others for medical studies? (Rank them this way: 1 = Least important; 4 = Most important. Rank all.)

☐ Listening ☐ Speaking ☐ Reading ☐ Writing

11. How important do you think English is for the future careers of medical students? Please check (✔) one box.

☐ Extremely important  ☐ Important  ☐ Somewhat important  ☐ Not important  ☐ No opinion

12. How important is it for the medical students to have sufficient competence in English for
13. How important is it for medical students to have a high level of English proficiency when performing the following activities? (Please circle the appropriate number).

<table>
<thead>
<tr>
<th>Activity</th>
<th>Listening</th>
<th>Speaking</th>
<th>Reading</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Lectures in class</td>
<td>1 2 3 4 5</td>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>B Asking Questions in class</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>C Answering in class</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>D Discussions on medical issues/class discussions</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E Seminars, conferences, presentations</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>F Presenting oral reports</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>G Radio/T.V programs</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H Medical terminology</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>I Text books/resource books</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>J Main idea of text books</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>K Text books details</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>L Translation of texts</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>M Taking notes from books</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>N Exams (Oral and written)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>O Medical journals/articles</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>P Graphs/Charts/Tables</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Q Term projects/assignments</td>
<td></td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
14. Which of the following English skills are important for the success of medical students in their studies? You may check (✓) all appropriate items.

(i) ☐ reading to understand English textbooks, resource books and medical journals
(ii) ☐ presenting oral reports
(iii) ☐ carrying on conversations
(iv) ☐ writing research papers
(v) ☐ understanding class lectures
(vi) ☐ writing examination answers
(vii) ☐ training to have listening/ note-taking skills
(viii) ☐ Others (Please specify) ————————————

PART FOUR: ANALYTICAL ASSESSMENT

15. How do you describe the existing level of proficiency of medical students in the following English language skills? Please check (✓) one box for each skill.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Read the following factors and rate your proficiency in English language according to the scale given below. (Please circle the appropriate number).

<table>
<thead>
<tr>
<th>Factor</th>
<th>1=Poor</th>
<th>2= Below average</th>
<th>3= Average</th>
<th>4=Very good</th>
<th>5=Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Grammar</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Listening comprehension</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Reading speed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Comprehension of reading materials in general</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Comprehension of reading materials in medicine</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Use of English in exams</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Understanding of Medical terminology</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Others (Please specify)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
17. Would you like to point out anything else related to English language needs (issues of listening, speaking, reading and writing) of the medical students and why? (e.g., any suggestions or problems etc.).

18. The following questions aim to identify your opinions about learning English at medical College. Use the following scale for questions from 1 to 12. (Please circle the appropriate number).

<table>
<thead>
<tr>
<th>Question</th>
<th>1=Strongly disagree</th>
<th>2=Disagree</th>
<th>3=Not sure</th>
<th>4=Agree</th>
<th>5=Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 General purposes English is important for medical students</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2 English for Medical Purposes is important for medical students.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3 General English instruction should start from 1st year of medical classes.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
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<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5 The materials in medical students’ English courses should be relevant to the medical field.</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7 English language instructors should use a method in which students can learn English interactively in groups.</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
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<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9 The medical students should have the language capacity to read the English language medical sources in the library.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10 In order to make use of the medical sites on the internet, one should have a high level of English.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11 Translation skills are important to develop learners’ overall language competence for medical studies.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12 It is important for medical students to be able to read the original English texts.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Thank you for your participation
APPENDIX D

Faculty of Advanced Integrated Studies & Research
National University of Modern Languages H-9, Islamabad
Needs Identification Questionnaire
Designed by Mahwish Mumtaz Niazi
Supervised by Brig® Dr. Aziz Ahmad Khan

Questionnaire 3
Questionnaire to Gather Information Regarding Needs as Perceived by Medical Trainees

The questionnaire is part of doctoral dissertation. It intends to gather information for the identification of English language needs of the learners of medicine in Pakistan and subsequently would be reported with recommendations to improve the standard of medical education in Pakistan. The findings of research will lead to recommending English for Specific Purposes (ESP) Course designed on the basis of specific needs of medical learners.

For this research, four questionnaires have been designed to gather information regarding English language needs as perceived by the four important members of discourse community (i.e., Students of medicine, teachers of medicine, medical trainees and medical administrators) in the field of medicine. This questionnaire is divided into four parts and consists of four pages. It is designed to be answered within twenty minutes. Instructions are provided for each question. Please note that you do not have to write your name. Please note that by completing this questionnaire you agree that the researcher is allowed and permitted to use the information that you provide for research and publication purposes only. The researcher will answer any questions about the research, now or during the course of the project, and can be reached by email at: mahwishlinguist@hotmail.com

I am grateful for your time and effort in completing the questionnaire.

Thank you
Mahwish Mumtaz Niazi

PART ONE: DEMOGRAPHICAL INFORMATION

Please check (✔) the appropriate box.

1. Gender:  
   (a) ☐ Male  
   (b) ☐ Female

2. Age__________

3. Your current position:  
   (a) ☐ Training Medical Officer/PGR  
   (b) ☐ House Officer
PART TWO: FREQUENCY OF USAGE OF ENGLISH

4. What is the perceived percentage of using English in medical studies? Please check (✔) one box.

☐ 91-100%  ☐ 71-90%  ☐ 51-70%  ☐ 31-50%  ☐ No opinion

5. With whom do the medical students communicate in English?
You may check (✔) more than one boxes.

☐ Teachers  ☐ Administrators  ☐ Students  ☐ Patients  ☐ Other
(If others, please specify_____________________

6. How often do the medical students need English to communicate with other health professionals (e.g., Nurses, Paramedical staff etc.) during medical studies? Please check (✔) one box.

☐ Always  ☐ Often  ☐ Sometimes  ☐ Rarely  ☐ Never

PART THREE: IMPORTANCE OF ENGLISH

7. How is it important for you to have a high level of English proficiency to perform your job effectively? Please check one (✔) box.

☐ Extremely important  ☐ Important  ☐ Somewhat important  ☐ Not important  ☐ No opinion

8. Which of the following English skills do you think are more important than the others for medical studies? (Rank them this way: 1 = Least important; 4 = Most important. Rank all.)

☐ Listening  ☐ Speaking  ☐ Reading  ☐ Writing

9. How important do you think English is for the future careers of medical students? Please check (✔) one box.

☐ Extremely important  ☐ Important  ☐ Somewhat important  ☐ Not important  ☐ No opinion

10. How is it important for the medical students to have sufficient competence in English for medical purposes? Please check (✔) one box.

☐ Extremely important  ☐ Important  ☐ Somewhat important  ☐ Not important  ☐ No opinion
11. How important is it for medical students to have a high level of English proficiency when performing the following activities? (Please circle the appropriate number).

<table>
<thead>
<tr>
<th></th>
<th>Listening</th>
<th>Speaking</th>
<th>Reading</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Lectures in class</td>
<td>1 2 3 4 5</td>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>B Asking Questions in class</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>C Answering in class</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>D Discussions on medical issues/class discussions</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E Seminars, conferences, presentations</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>F Presenting oral reports</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>G Radio/T.V programs</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H Medical terminology</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I Text books/resource books</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>J Main idea of text books</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>K Text books details</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>L Translation of texts</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>M Taking notes from books</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>N Exams (Oral and written)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>O Medical journals/articles</td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>P Graphs/Charts/Tables</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Q Term projects/assignments</td>
<td></td>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>R Others (Please specify)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
12. Which of the following English skills are important for success in medical studies? You may check (✓) all appropriate items.

(i) □ reading to understand English textbooks, resource books and medical journals

(ii) □ presenting oral reports

(iii) □ carrying on conversations

(iv) □ writing research papers

(v) □ understanding class lectures

(vi) □ writing examination answers

(vii) □ training to have listening/ note-taking skills

(viii) □ Others (please specify) ——————————————————————————————————

PART FOUR: ANALYTICAL ASSESSMENT

13. How do you describe your existing level of proficiency in the following English language skills? Please check (✓) one box for each skill given below.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Excellent level</th>
<th>Very good level</th>
<th>Good level</th>
<th>Satisfactory level</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Listening skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Speaking skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Reading skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Writing skill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Read the following factors and rate your proficiency in English language according to the scale given below. (Please circle the appropriate number)

<table>
<thead>
<tr>
<th>Factor</th>
<th>1=Poor</th>
<th>2= Below average</th>
<th>3=Average</th>
<th>4=Very good</th>
<th>5=Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Vocabulary</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Grammar</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Listening comprehension</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Reading speed</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Pronunciation</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Comprehension of reading materials in general</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Comprehension of reading materials in medicine</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Use of English in exams</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Understanding of Medical terminology</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Others (Please specify)</td>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
15. How do you rate your knowledge of English after you graduated from medical college? Please check (✓) one box.

☐ Much worse  ☐ Somewhat worse  ☐ About the same  ☐ Somewhat better  ☐ Much better

16. Would you like to point out anything else related to English language needs (issues of listening, speaking, reading and writing) of the medical students and why? (e.g., any suggestions or problems etc.).

__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________
__________________________________________________________________________________

17. The following questions aim to identify your opinions about learning English at Medical College. Use the following scale for questions from 1 to 12. (Please circle the appropriate number)

<table>
<thead>
<tr>
<th>1=Strongly disagree</th>
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<th>5=Strongly agree</th>
</tr>
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<tbody>
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<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 General English instruction should start from 1st year of medical classes.</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<td>9 The medical students should have the language capacity to read the English language medical sources in the library.</td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>11 Translation skills are important to develop learners’ overall language competence for medical studies.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 It is important for medical students to be able to read the original English texts.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Thank you for your participation

APPENDIX E

Faculty of Advanced Integrated Studies & Research
National University of Modern Languages H-9, Islamabad
Needs Identification Questionnaire
Designed by Mahwish Mumtaz Niazi
Supervised by Brig® Dr. Aziz Ahmad Khan

Questionnaire 4
Questionnaire to Gather Information Regarding Needs as Perceived by
Medical Administrators in Associated Teaching Hospitals

The questionnaire is part of doctoral dissertation. It intends to gather information for the identification of English language needs of the learners of medicine in Pakistan and subsequently would be reported with recommendations to improve the standard of medical education in Pakistan. The findings of research will lead to recommending English for Specific Purposes (ESP) Course designed on the basis of specific needs of medical learners.

For this research, four questionnaires have been designed to gather information regarding English language needs as perceived by the four important members of discourse community (i.e., Students of medicine, teachers of medicine, medical trainees and medical administrators in associated teaching hospitals) in the field of medicine. This questionnaire is divided into four parts and consists of three pages. It is designed to be answered within twenty minutes. Instructions are provided for each question. Please note that you do not have to write your name. Please note that by completing this questionnaire you agree that the researcher is allowed and permitted to use the information that you provide for research and publication purposes only. The researcher will answer any questions about the research, now or during the course of the project, and can be reached by email at: mahwishlinguist@hotmail.com

I am grateful for your time and effort in completing the questionnaire.
Thank you

Mahwish Mumtaz Niazi
PART ONE: DEMOGRAPHICAL INFORMATION
Please check (✔) the appropriate box.

1. Gender:  (a) ☐ Male         (b) ☐ Female

2. Age_____________________

3. What is your current medical administrative post? Please check (✔) relevant box.
☐ MS            ☐ DMS            ☐ AMS            ☐ Administration Registrar            ☐ Others 
(please specify) ------

PART TWO: FREQUENCY OF USAGE OF ENGLISH

4. What is the perceived percentage of using English in your work? Please check (✔) one box.
☐ 91-100%         ☐ 71-90%         ☐ 51-70%         ☐ 31-50%         ☐ No opinion

5. With whom do you communicate in English? You may check (✔) more than one boxes.
☐ Administrators  ☐ Paramedical staff  ☐ Patients  ☐ Others (please specify)-----

6. How often do you need English to communicate with other health professionals (e.g. Nurses, Paramedical staff etc.) during your job? Please check (✔) one box.
☐ Always         ☐ Often         ☐ Sometimes         ☐ Rarely         ☐ Never

7. Have you been engaged in medical training courses while working at the hospital? Please check (✔) one box.
(a) ☐ Yes         (b) ☐ No

8. If you answered yes, which language is used in these courses? Please check (✔) one box.
☐ Urdu         ☐ English         ☐ Both         ☐ Other (Please specify) ______________
PART THREE: IMPORTANCE OF ENGLISH

9. How is it important for you to have a high level of English proficiency to perform your job effectively? Please check one (✔) box.

☐ Extremely important  ☐ Important  ☐ Somewhat important  ☐ Not important  ☐ No opinion

10. Which of the following English skills do you think are more important than the others for conducting your job? (Rank them this way: 1 = Least important; 4 = Most important. Rank all.)

☐ Listening  ☐ Speaking  ☐ Reading  ☐ Writing

11. How is it important to have a high level of English proficiency when performing the following activities? (Please circle the appropriate number).

<table>
<thead>
<tr>
<th></th>
<th>Listening</th>
<th>Speaking</th>
<th>Reading</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Dealing with patients</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Dealings with colleagues</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Phone Conversations</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Letters</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>E</td>
<td>Memos</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>F</td>
<td>Emails and Faxes</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<td>Research</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>H</td>
<td>Forms/Applications</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I</td>
<td>Reports</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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</tr>
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<td>J</td>
<td>Using computers</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>K</td>
<td>Meetings</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>L</td>
<td>Instructions/explanations</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>M</td>
<td>Others (Please Specify--)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
PART FOUR: ANALYTICAL ASSESSMENT

12. How do you describe your existing level of proficiency in the following English language skills? Please check (✓) one box for each skill.

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Listening skill</td>
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<tr>
<td>2</td>
<td>Speaking skill</td>
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</tr>
<tr>
<td>3</td>
<td>Reading skill</td>
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</tr>
<tr>
<td>4</td>
<td>Writing skill</td>
<td></td>
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</tr>
</tbody>
</table>

13. Would you like to point out anything else related to your English language needs (issues of listening, speaking, reading and writing) and why? (e.g., any suggestions or problems etc.).

________________________________________________________________________________________________
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Thank you for your participation
OFFICE OF THE PRINCIPAL RAWALPINDI MEDICAL COLLEGE RAWALPINDI
No. C-9/12/17
Dated 15/05/2012

CERTIFICATE

This is to certify that Miss. Malwish Muntaz Naazi Ph.D Scholar Registration No. 66-Ph.D/Eng/2002 (Aug) enrolled in National University of Modern Languages Islamabad has conducted her research in Rawalpindi Medical College Rawalpindi and its associated teaching hospitals from 4th November 2011 to 15th March 2012. She has collected all the relevant data regarding her research on the subject, “English for Medical Purposes: A Case of English for Specific Purposes” from the four stakeholders i.e. students of medicine, teachers of medicine, medical trainees and medical administrators. During her research, she did not damage anything at the institute. She proved herself enormously committed towards her research objectives.

We wish her good luck for her future achievements.

Principal
Rawalpindi Medical College
Rawalpindi

Principal
Rawalpindi Medical College
Rawalpindi.
CERTIFICATE

This is to certify that Miss. Mahwish Mumtaz Niazi Ph.D Scholar Registration No. 66-Ph.D/Eng/2002 (Aug) enrolled in National University of Modern Languages Islamabad has conducted research in Islamic International Medical College Rawalpindi and its associated hospital from 4th November 2011 to 22nd March, 2012. She worked with and interviewed staff and students for relevant data collection on her research “English for Medical Purposes: A case of English for Specific Purposes”. Her endeavor was non-intrusive and harmless to the organization/hospital and individuals. She carried out her tasks with perseverance, patience and thorough diligence.

I wish her all the success in her future pursuits.

[Signature]
Brig. (Retd.)
Vice Principal
(Dr. Maqsood ul Hassan)

APPENDIX J page: 430
APPENDIX G page: 427
TO WHOM IT MAY CONCERN

This is to certify that Ms. Mahwish Mumtaz Niazi d/o Mr. Mumtaz Munawar Khan Niazi, Reg. No. 66-PhD/Eng/2002 (Aug) is enrolled in the PhD Programme in the discipline of English, Faculty of Advanced Integrated Studies and Research, at this University. Currently she is working on her PhD research thesis titled "English for Medical Purposes: A Case of English for Specific Purposes."

With a view to facilitating the candidate in gathering data for her research, you are requested to kindly provide her desired information pertaining to your organization, publications/relevant training and development material etc.

We take this opportunity to assure you that this research is a purely academic activity and the information provided by your organization will be used for research purposes only.

Prof. Dr. Shazra Munawar
Dean, Faculty of Advanced Integrated Studies & Research
To
The Principal
'Nishtar Medical College
Multan

Subject: PERMISSION FOR RESEARCH FACILITIES

This is to certify that Ms. Mahwish Mumtaz Niazi d/o Mr. Mumtaz Munnawer Khan Niazi, Reg. No. 66-PH/D(Eng)/2002 (Aug) is enrolled in the Ph.D Programme in the discipline of English, Faculty of Advanced Integrated Studies and Research, at this University. Currently she is working on her PhD research thesis titled "English for Medical Purposes: A Case of English for Specific Purposes.

With a view to facilitating the candidate in gathering data for her research, you are requested to kindly provide her desired information pertaining to your organization, publications/relevant training and development material etc.

We take this opportunity to assure you that this research is a purely academic activity and the information provided by your organization will be used for research purposes only.

Prof. Dr. Shazia Munnawer
Dean, Faculty of Advanced Integrated Studies & Research

APPENDIX I page: 429
To
The Principal
Rawalpindi Medical College
Rawalpindi

Subject: PERMISSION FOR RESEARCH FACILITIES

This is to certify that Ms. Mahwish Humza Naizzi, b/o Mr. Mumtaz Muhammed Khan Naizzi, Reg. No. 66-PhD/Eng/2002 (Al-Q) is enrolled in the PhD Program in the discipline of English, Faculty of Advanced Integrated Studies and Research, at this University. Currently she is working on her PhD research thesis titled "English for Medical Purposes: A Case of English for Specific Purposes."

With a view to facilitating the candidate in gathering data for her research, you are requested to kindly provide her desired information pertaining to your organization, publications/relevant training and development material etc.

We take this opportunity to assure you that this research is a purely academic activity and the information provided by your organization will be used for research purposes only.

[Signature]
Prof. Dr. Shazza Hummaer
Dean, Faculty of Advanced Integrated Studies & Research

[Stamp]