

## Investigating the English Language Needs of Pakistani Undergraduate Medical Students: An ESP Study in a Public Sector University

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### Abstract

This study explores the English language needs of undergraduate medical students at a public sector university from an ESP perspective. A total of 50 second-year medical students participated by responding to a structured questionnaire. The collected data were analyzed quantitatively to better understand the ESP context. The findings highlight that many medical students struggle with English proficiency, which poses challenges in both their academic studies and future careers. Their limited knowledge of English, particularly in scientific terminology and reading comprehension, creates significant obstacles. The needs analysis underscores the importance of developing all language skills and sub-skills, with a particular focus on medical vocabulary and reading comprehension. Based on these insights, the study offers recommendations for improving English language instruction for medical students. These include increasing class hours, integrating modern technological tools, and appointing ESP-trained instructors to ensure more effective teaching and learning of medical English.

**Keywords:** English for Specific Purposes (ESP), Language Needs Analysis, Undergraduate Medical Students, Pakistan.

English is spoken by over one billion native speakers' worldwide (Zaman et al., 2025). It plays a vital role in many aspects of life, including research, modern technology, education, business, media, travel, and global trade (Crystal, 2003).

English is recognized as the most widely used and significant language for communication around the globe (Akinwamide, 2012). The importance of English is undeniable, as research has confirmed that proficiency in the language can lead to success, recognition, and respect for its learners within society (Chabani, 2015). Consequently, the relevance of the English language has been acknowledged more than ever before (Haidar & Fang, 2019).

In Pakistan, English is regarded as a second language, similar to its status in many other countries today, where it serves as the medium of instruction in scientific colleges, such as those for medicine and technology (Benesch, 2001; Gil, 2012). As a result, it has become a mandatory foreign language in educational institutions in Yemen, particularly in scientific fields like medicine. Nevertheless, the majority of students entering scientific colleges after finishing secondary school face significant challenges due to their inadequate understanding of the English language (Anthony, 1997; Marlina & Xu, 2018). Their proficiency in English is far below the necessary level to effectively use it as a medium of learning (Graddol, 2006; Oluwatayo & Ayodele, 2012). Many medical students experience disappointment during their

first semester and often drop out of their programs due to language challenges rather than the academic content (Babbie, 2016). This study aims to explore and address this issue in Public Sector Universities. Pakistan is one of the nations where English holds the status of a second language and is employed across various sectors (Abbas & Iqbal, 2018). Since Pakistan's independence, English has served as the official language in government offices, educational settings, international communications, and courts (Abbas et al., 2018).

The English language is considered one of the prominent characteristics of human beings and Pakistan is one of the countries on the world map where almost seventy-three languages are used as a tool of communication in different regions excluding the English language (Ethnologue, 2018). In the present scenario, competency in the English language is a symbol of superiority among all languages in the country (Shamin, 2008).

To achieve higher education and higher positions are dependent on the English language and it is perceived as a leading language among other local languages for progress in Pakistan (Coleman, 2010). The English language plays a vital role for students' academic and their professional career (Haider, 2005). The English language is used as a medium of instruction in educational institutes in the country (Ahmad et al., 2017).

According to the government of Pakistan's National Educational Policy English has been declared as a gateway to success in the academic career, and is also referred that English will be used as a medium of instruction in mathematics and science from grade four to onwards (Govt. Of Pakistan, 2009). English is taught from primary to post graduate level as a mandatory subject in Pakistani institutions (Rahman, 2002). The education system of Pakistan is influenced by the English language as linked to the local languages, and well-educated people used English language as a symbol of status (Tamim, 2015). Students' command over the English language not only develop their educational achievement but also open the doors of better jobs in the market because employers prefer those whose English language proficiency is good (Atek et al., 2012). The rolling elite and upper class might have power who are controlled education and language policies in Pakistan (Rehman, 2008). Typically, the upper class have better access to the sound English education as compared to the ordinary people in Pakistan (Haidar, 2019). Thus, it has been seen the superiority of English over indigenous languages gives more opportunities and advantage for elite class to assist their children better in education and that is why in life (Mohanty, 2006).

The main goal of this research is to conduct a needs analysis in an English for specific purposes (ESP) context at Public Sector University in Karachi. The needs analysis process explored the English language needs of undergraduates in a medicines program to provide guidelines for redesigning and developing an appropriate ESP course. Consequently, being familiar with the needs of the medical students in their Arabic setting is very significant in designing the related curriculum of English course for specific purpose.

In terms of English for Specific Purposes (ESP), the necessity for its application in the medical field is one of the most critical areas that requires thorough exploration (Francomacaro, 2015; Orr, 2001). A course focused on ESP for medical students aims to facilitate their complete understanding of terminology associated with medicine and to integrate this knowledge into their future careers (Johns & Salmani, 2015; Master, nd; Thamar University, 2023a; Thamar University, 2023b; Tony & St, 1998).

### **English for Specific Purposes (ESP)**

English for Specific Purposes (ESP) has developed as a component of English language instruction for non-native speakers. ESP is regarded as an approach that prioritizes the needs of learners, striving to equip them with the language necessary for their academic and professional endeavors (Basturkmen, 2003). Various definitions of ESP have surfaced in response to the increasing use of English in educational institutions and professional fields (Blanca, 1985; P., 1988). Robinson, in his book *ESP Today*, contends that achieving a single, universally accepted definition of ESP is challenging. He notes that ESP is typically oriented

toward specific goals." (Robinson, 1991) Anthony asserts that ESP is often associated with particular disciplines and professions, and its adoption in higher education has grown significantly over the past thirty years (Anthony, 1997, p. 3). Numerous scholars offer their definitions and distinctive characteristics of ESP. Hutchinson and Water propose a practical definition of ESP in their book.

### **Needs Analysis**

Needs analysis (NA) has historically been recognized as the initial step in designing language curricula or syllabi. Needs analysis refers to the crucial first step that must be undertaken when preparing an English for Specific Purposes (ESP) learning program (Alsamadani, 2017; Songhori, 2008). The needs analysis process involves gathering information. Experts agree that NA represents the primary and most significant step in developing an ESP program. A thorough needs analysis greatly assists in creating a highly effective curriculum (Benesch, 1996; Malicka et al., 2017; Scriven & Roth, 1990).

ESP is intricately tied to the needs analysis of learners, highlighting the essential role that analyzing learners' needs plays in the creation of ESP courses. Richard West notes that over the course of two decades of conducting surveys in needs analysis, both the focus and scope of this analysis have evolved. Initially, the predominant emphasis of early needs analysis was on occupational/English for Occupational Purposes (EOP), but this later shifted to academic language/English for Academic Purposes (EAP)." (West, 1994) "John Munby's Communicative Syllabus Design (1978) is considered the most comprehensive and widely recognized study on needs analysis. Munby offers an elaborate set of procedures for identifying target situation needs, which he refers to as the Communication Needs Processor (CNP) (Chamberlain & Flanagan, 1978). The CNP consists of a series of questions regarding key communication factors such as topic, participants, medium, etc., and serves to determine the target language needs of any group of learners. Munby is regarded as a foundational figure in the development of ESP" (Munby, 1978)

### **Content and Language Integrated Learning (CLIL)**

When the concept of Content and Language Integrated Learning (CLIL) was embraced in Europe in 1994, experts believed it marked a progressive educational approach rooted in historically effective practices (Tarnopolsky, 2013). There were uncertainties regarding whether it would extend beyond isolated innovation centers or particular regions into broader mainstream education. Additionally, there was considerable doubt about whether this educational model would thrive in the larger nations of Europe (Bradburn & Wansink, 1984). However, practitioners and researchers generally agreed that the initial findings from various CLIL models were too favorable to dismiss as just another fleeting educational trend. CLIL has frequently emerged as a grassroots movement, propelled by pioneering educators, parents, and students, as well as creative administrators and policymakers, and has evolved in various ways to meet the needs and interests of those involved (Chapelle & Duff, 2003). There is significant potential in gathering diverse CLIL practices to both enhance current methodologies and inspire others to see what can be accomplished, even with limited resources (Hymes, 1966). This is the advantage of such publications, which aim to express and disseminate insights and effective practices related to this rapidly evolving and thrilling educational phenomenon" (Marsh, 2012, p. 7)

### **Research Objectives**

- To identify the specific English language requirements of medical students at the Faculty of Medicine in a public sector university in Karachi, Pakistan.
- To evaluate the extent to which existing English for Specific Purposes (ESP) courses align with and fulfill the linguistic and academic needs of medical students.
- To propose key recommendations for improving ESP courses to better address the

actual language needs of medical students.

- To explore medical students' perceptions of their own English language needs and analyze their perspectives for further insights.

### **Research Questions**

1. What are the specific English language requirements of medical students at the Faculty of Medicine in a public sector university in Karachi, Pakistan?
2. To what extent do the existing English for Specific Purposes (ESP) courses align with and fulfill the linguistic and academic needs of medical students?
3. What key recommendations can be proposed to enhance the effectiveness of ESP courses in addressing the actual language needs of medical students?
4. How do medical students perceive their own English language needs, and what insights can be drawn from their perspectives?

### **Significance of Needs Analysis**

West (1997) struggles to find a universally accepted definition for needs analysis (NA) due to the historical evolution of the concept. He cites Richterich's (1983:p.2) observation that "the very concept of language needs has never been clearly defined and remains, at best, ambiguous." (West R., 1997)

Nonetheless, West (1994:1) presents his own definition of NA as: "What learners will need to do with the foreign language in the target situation and how learners can best acquire the target language during their training period." Additionally, NA has been characterized in traditional approaches as the systematic gathering of data on the communicative requirements encountered by individuals in the target context. This analysis encompasses information about language usage within particular academic, professional, or vocational groups, the most frequently utilized linguistic skills in the target setting, and the challenges faced by second language learners in those environments. (Basturkmen & Helder, The practice of LSP, 2004). Indeed, the concept of needs is recognized as complex, extending beyond a straightforward understanding of the target language environment where the language will be utilized. L. I. Juan, in his article, concludes that:

Needs are categorized as perceived and felt, objective and subjective, situational or communicative, target situation/goal-oriented as well as learning, process-oriented and product-oriented; furthermore, there are necessities, wants, and lacks. These terms have been introduced to illustrate the various factors and viewpoints that have facilitated the development of the concept of needs. Each of these terms embodies a distinct philosophy or educational value and deserves careful consideration." (Juan, 2014)

### **Research Methodology**

It is understood that effectively designing English courses in a non-English context requires a thorough assessment of learners' needs. English for Specific Purposes (ESP) programs at universities in Pakistan, especially in scientific disciplines, are currently inadequate (Harkness, 2008). The English language courses tend to be conventional, with course designers concentrating solely on grammatical structures while overlooking the actual requirements of the learners (Hutchinson & Waters, 1987; Robinson, 1991). There is a global movement towards updating ESP to better align with learner needs, and this study aims to address this global shift (Ranjiit, 2011). To understand the English language requirements of Pakistani learners in general, as well as those specifically in the medical field, both qualitative and quantitative data must be gathered and examined to answer the research questions.

### **Population of the Study**

The population of the present research study consists of 50 undergraduate medical students from the Public Sector University in Pakistan

**the Study**

Different sampling methods exist in research, depending on the appropriateness for the specific study. The purposive sampling method was used to choose the sample from the intended population. Consequently, two intact groups of 50 participants each were drawn from a public sector university located in Karachi. Purposive sampling, often referred to as subjective, judgmental, or selective sampling, is a form of non-random sampling where the researcher relies primarily on their own judgment when choosing participants from the population for their survey (Schmidt, 1999). In this context, the researcher selected purposive sampling to obtain reliable data from the participants.

**Data Collection Methods**

An array of research methodologies has been established within the research field and is applied across various disciplines. Different approaches have been taken to collect the essential data needed to meet the research goals. As a result, the researcher of this study has utilized questionnaires to gather data. To perform a thorough needs analysis, the researcher must initially engage in the data collection process. Various tools are employed for the data collection method. The most prevalent tools for data collection include questionnaires, observations, discussions, and structured interviews (Dörnyei, 2010; Gilham, 2000). In this study, a questionnaire is employed as the instrument for data collection.

**Data Analysis Techniques**

The analysis of the data was conducted using the Statistical Package for Social Sciences (SPSS). To achieve the goals of the research study, the data underwent quantitative analysis. Primarily, descriptive statistics were employed. Quantitative research presents data as numerical values. Statistical calculations can be applied by the researcher to interpret the data and uncover insights such as preference trends and differences. Ultimately, the questionnaire data were analyzed quantitatively by reviewing the transcript and identifying answers related to specific questions from the questionnaires. One of the significant benefits of quantitative research is its provision of descriptive data. An automated approach, such as a survey, is typically utilized in this type of research. The data gathered from the NA questionnaire were examined using the Statistical Packages for Social Sciences (SPSS). A descriptive research design was implemented in the analysis of the data.

**Results and Discussion**

A total of 50 students were asked to fill out the questionnaire, with 35 students (72.9%) from the fourth level and 15 students (30.1%) from the fifth level. Among the 50 students, 40 (83.3%) are male, while 8 (16.7%) are female. The process and details regarding the English Language Needs Questionnaire were thoroughly outlined in Chapter 3. All 50 students (100%) from the pharmacy department at the public sector university returned the questionnaires.

**Findings of the study**

This section provides general information regarding the students, including their previous experiences with other English language courses, how often they use English outside of the classroom, their attitudes towards the English language, and their self-assessment of their English language skills. The data presented here sheds light on the demographic characteristics of the students. The findings facilitated the researcher's understanding of the personal backgrounds of the students and helped assess their current level of English language proficiency.

All but one student recognized their need for the English language. They acknowledged the importance of learning English for their specific professional purposes (ESP). They

articulated that their main objective in learning English is tied to its necessity in academic settings. In their responses to open-ended questions, students elaborated on this point. They expressed a desire to secure good employment and recognized the crucial role that English plays in job hunting. Most of the participants conveyed that English is essential for their future careers.

The skills that the students identified as important closely align with their motivations for studying English. While all students rated all six skills Scientific vocabulary, Reading skills, Speaking skills, Writing skills, Listening skills, General vocabulary as very important, grammar was marked as less significant. This indicates that grammar is not considered a priority for medical students of pharmacy department, Public Sector University. The students expressed a greater interest in focusing on scientific vocabulary over other skills. These findings are in line with their educational goals related to their future professions and advanced studies in university.

It is widely agreed that a majority of the students do not possess the necessary English language proficiency, necessitating an emphasis on language skills and the teaching of medical terminology within English courses. Medical students ranked reading skills as the most crucial skill, while grammar was rated the least important. Scientific terms were considered the second most significant component, with the other skills writing, general vocabulary, speaking, and listening ranked in succession.

This needs analysis study offers valuable insights for Public Sector University and similar medical educational contexts in Pakistan. There is a clear requirement for curriculum revision based on the findings of this needs assessment. The study calls for the development of a new curriculum that should be implemented.

Respondents indicated a need to modify both the current teaching methods and the English language courses. In terms of teaching approaches, it has been shown that students place greater importance on developing speaking and listening skills rather than on grammar, even though the predominant teaching methods tend to be grammar-focused and translation-based. Students, in their feedback, expressed a preference for communicative methods over grammatical methods. They favor engaging in language practice rather than memorizing grammatical structures. They emphasized the need for teaching approaches that encourage interactive discussions instead of solely focusing on lectures.

Regarding English language materials, while the curriculum provides valuable content, it fails to prioritize practice in skills like speaking and listening. There is an absence of speaking and listening exercises. The shortfall is evident not just in the quality of the materials but also in their quantity. This indicates that more courses need to be offered. The teaching of English should not be confined to the first academic year; it should also extend into the second and third academic years. Courses should be available during the first three years of study.

## **Conclusion**

The results derived from these findings are discussed in this chapter. This chapter presents the results of the questionnaire responses, divided into two sections based on the feedback from 50 students. Initially, the findings regarding the background information are shared. Following that, the findings related to the challenges faced with general English language skills are provided.

## **Recommendation for Future Research**

Based on the results of this study, the researcher respectfully and enthusiastically suggests the following recommendations for future research in this field:

1. Future researchers should broaden their data collection methods to include interviews alongside the questionnaire. While this study relied solely on the questionnaire, subsequent researchers are encouraged to incorporate additional tools such as interviews.
2. Researchers should incorporate teachers in their data collection methods. This study

focused on gathering data solely from medical students through questionnaires, but it could benefit from the inclusion of ESP teachers.

3. Future researchers ought to extend their respondent pool to encompass all four academic years. Although this study is restricted to the fourth and fifth-year students, future researchers could perform a needs analysis involving all four years to achieve more comprehensive results.

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