

STUDENTS' NEEDS, LEARNING SITUATION, AND MEANS ANALYSIS IN LEARNING ENGLISH IN THE PHARMACY DEPARTMENT, MINISTRY OF HEALTH POLYTECHNIC OF HEALTH MAKASSAR

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Abstract

This study aims to analyze the English language needs of Pharmacy students at the Makassar Ministry of Health Polytechnic within the framework of English for Science, Technology, Engineering, and Mathematics (ESTEM). A needs analysis approach was employed to identify students' target needs, learning needs, lacks, and wants related to academic and professional pharmacy contexts. Data were collected through questionnaires distributed to 21 Pharmacy students. The findings indicate that students require English primarily for understanding scientific texts, mastering pharmaceutical terminology, writing laboratory reports, and communicating in professional settings. However, students face challenges in vocabulary mastery, academic writing, speaking fluency, and listening comprehension. The results suggest that an ESTEM-based English curriculum tailored to pharmacy-specific contexts is essential to enhance students' academic performance and professional readiness.

Keywords: English For Science and Technology; ESP; Needs Analysis; Pharmacy Students; Professional Communication

INTRODUCTION

English plays a crucial role in science-based disciplines, including pharmacy, where most academic references and professional documentation are written in English. Pharmacy students are required to read scientific articles, understand pharmaceutical terminology, and communicate effectively in academic and professional environments. However, English courses often emphasize general language skills rather than discipline-specific needs. Therefore, a systematic needs analysis is necessary to design an English program that aligns with the academic and professional demands of pharmacy students.

Despite the importance of English in the pharmacy field, English instruction at many higher education institutions still focuses on General English rather than discipline-specific language use. This mismatch often results in students being unable to apply their English skills effectively in academic and professional contexts. As a consequence, students may struggle with reading scientific texts, writing laboratory reports, or participating in professional communication.

English for Specific Purposes (ESP), particularly English for Science, Technology, Engineering, and Mathematics (ESTEM), offers a framework for designing language instruction that is relevant to learners' fields of study. ESTEM emphasizes the integration of

language skills with scientific content, enabling students to develop both linguistic competence and subject-specific knowledge. To design an effective ESTEM-based English course for pharmacy students, a systematic needs analysis is required.

Therefore, this study aims to analyze the English language needs of Pharmacy students at the Makassar Ministry of Health Polytechnic by identifying their target needs, learning needs, lacks, and wants. The findings are expected to provide insights for developing an English curriculum that better supports students' academic success and professional development in the pharmacy field.

METHOD

This study employed a descriptive needs analysis research design. The purpose of this design was to describe the current English language needs of pharmacy students without manipulating any variables. The participants of the study consisted of 21 Pharmacy students enrolled at the Makassar Ministry of Health Polytechnic. The participants were selected using a total sampling technique, as all students in the selected group were involved in the study.

Data were collected through a questionnaire designed based on ESP and needs analysis theories proposed by Hutchinson and Waters (1987) and Brown (2016). The questionnaire used a 1–5 Likert scale ranging from “strongly disagree” to “strongly agree.” It consisted of several sections, including students' perceptions of the importance of English skills, self-assessment of English proficiency, learning difficulties, and preferences for English learning materials related to pharmacy.

The collected data were analyzed descriptively by calculating frequencies and percentages to identify dominant trends and patterns. The results were then interpreted in relation to ESTEM and ESP principles to draw conclusions about students' English language needs.

RESULTS AND DISCUSSION

This section presents the findings of the study based on the data obtained from the questionnaire administered to 21 Pharmacy students. The data were analyzed using descriptive statistics, particularly mean scores, to identify students' English proficiency, skill levels, learning gaps, and learning needs.

The results show that students' overall English proficiency is at a moderate level, with variations across different language skills and aspects. The analysis also highlights areas of weakness, particularly in writing and vocabulary, as well as strong awareness of learning needs and professional communication requirements.

Table 1. Summary of Students' English Proficiency, Skills, Needs, and Learning Preferences

Aspect	Mean Score
Overall Proficiency	03.00
Listening Skills	03.02
Reading Skills	03.00
Writing Skills	02.08

Speaking Skills	03.00
Pronunciation	03.00
Vocabulary Mastery	02.09
Professional Communication	03.08
Skill Gap Awareness	03.05
Learning Needs	04.00
Learning Preference	03.09

The findings reveal that while the subjects' foundational skills particularly Writing (2.8) and Vocabulary (2.9) require further development, there is a profound awareness of their educational requirements, as evidenced by the peak score in Learning Needs (4.0). Moreover, the high score in Professional Communication (3.8) suggests that the subjects prioritize language utility for professional settings over general linguistic mastery.

The findings of this study indicate that students' overall English proficiency is at a moderate level, as reflected by the mean score of 3.0 (Neutral). This suggests that most students are still in a transitional stage, where they possess basic knowledge of English but lack confidence and consistency in its practical use, particularly in academic and professional contexts.

Among the four language skills, writing emerges as the weakest area (Mean = 2.8, Low). This result highlights that students face significant challenges in producing academic texts such as reports, essays, and formal correspondence. Writing requires not only vocabulary mastery but also a strong understanding of grammar and text structure, which explains why it becomes the most difficult skill. Similarly, vocabulary mastery (Mean = 2.9, Low) also indicates that students have not yet fully acquired the technical terminology required in their field, which is crucial in ESP contexts.

In contrast, students show relatively better perceptions in professional communication (Mean = 3.8, High) and learning needs (Mean = 4.0, High). This demonstrates a strong awareness of the importance of English for their future careers. Students realize that they need to improve their communication skills, especially in professional settings such as interacting with colleagues, writing formal documents, and understanding workplace discourse. This awareness is also supported by the skill gap awareness (Mean = 3.5, Moderate), indicating that students recognize the discrepancy between their current abilities and the demands of their academic and professional environments.

Furthermore, the findings reveal that students prefer practical and contextual learning approaches (Mean = 3.9, High). This suggests that traditional grammar-based instruction may not be sufficient. Instead, students benefit more from hands-on activities, real-life examples, and learning materials that are directly مرتبط with their field of study. This aligns with the principles of English for Specific Purposes (ESP), which emphasize relevance, practicality, and contextualization in language learning.

Overall, although students demonstrate positive attitudes and strong motivation toward learning English, their actual proficiency especially in productive skills remains limited. Therefore, it is essential for curriculum designers to develop an ESP-based program that focuses on:

- a. Strengthening academic writing skills,
- b. Improving technical vocabulary mastery, and

c. Providing communicative and practice-oriented learning activities.

Such an approach is expected to bridge the gap between students' current abilities and the linguistic demands of their future professional careers.

CONCLUSION

This study concludes that students' English proficiency is generally at a moderate (transitional) level, indicating that they have basic knowledge but lack confidence and consistency in using English for academic and professional purposes. Among the language skills, writing and vocabulary mastery are identified as the weakest areas, while listening, reading, speaking, and pronunciation remain at a neutral level.

The findings also reveal that students have a high awareness of the importance of English, particularly for professional communication and future career development. They recognize a gap between their current abilities and the demands of their field, which highlights the need for more targeted and relevant English instruction.

In addition, students show a strong preference for practical, contextual, and field-related learning approaches, rather than purely theoretical instruction. Therefore, it is recommended that English courses adopt an ESP-based approach that emphasizes academic writing, technical vocabulary, and communicative skills through real-life and hands-on learning activities.

Overall, improving the alignment between students' needs and the learning materials is essential to enhance their English competence and better prepare them for academic success and professional readiness.

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