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Education as panacea: Paradigm shift in assessing the English for medical purposes needs and learning preferences of allied health science students

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ABSTRACT

English has been integrated into the medical curriculum for higher education in India to meet the growing academic and professional demands of the medical field. As a result, English for Medical Purposes (EMP) has become essential, particularly for students from non-English backgrounds pursuing medical education. This study aimed to investigate the specific English language needs of first-year Allied Health Science students. A structured questionnaire was used as the primary data collection tool to assess the students' needs, the perceived importance of English, preferred learning styles, and the primary reasons for learning the language. Descriptive analysis of the collected data was carried out using SPSS software. A total of 12 students participated in the study, with an equal representation of male and female respondents (50% each). The findings revealed that the students considered speaking and listening to be the most crucial English language skills for their academic and professional development. Additionally, the majority of students acknowledged the overall importance of English in the medical field and expressed a preference for online, self-paced learning environments. This reflects a shift toward digital and flexible learning modes among modern medical learners. The results also indicated that most students are motivated to learn English not only for academic purposes but also to enhance their future career prospects in the global healthcare context. These findings provide valuable insights into the language needs of medical students and offer practical implications for designing targeted English language programs that support their academic success and professional readiness.

Contribution/Originality: This study uniquely focuses on the English language needs of first-year Allied Health Science students in India using a structured, SPSS-based analysis, highlighting their preference for self-paced digital learning, an area underexplored in existing EMP research, especially among learners from non-English backgrounds in the Indian medical education context.

1. INTRODUCTION

In the last two decades, education in the English medium has become synonymous with internationalization and globalization (Sojoodizadeh, Ahangari, & Sheykhsaran, 2020). The principal means of international communication

worldwide in science, business, education, and medicine has been established as English (Hutchinson & Waters, 1987). English was predominantly used to access or share the latest medical knowledge (Concina, 2023). Learning English is a global phenomenon, with English proficiency being developed by millions worldwide. However, language learning is considered intricate and challenging, especially for non-native speakers (Feraco, Lanz, Tiozzo, & Meneghetti, 2023). This is why the implementation of English for Specific Purposes (ESP) (Hutchinson & Waters, 1987) assists students learning English as their second language in engaging with the English medium in their studies or in reading and writing in English within the domains of science and technology (Swales, 2020). ESP programs are designed to provide students with the English abilities needed for diverse contexts and professions. There are three reasons for the emergence of ESP as a common teaching thread: "revolutions in linguistics, the need for a brave new attitude, and concentration on learners" (Dou, Chan, & Win, 2023). In this setting, ESP courses have become essential to English learning in various universities (Choi, 2021). Many studies indicate that the objective of the ESP course is to enhance students' abilities (Cheraghi & Motaharinejad, 2023; Muñoz Luna, 2018; Saeedi & Najjarpour, 2025).

To globalize their campus and enhance their students' global competitiveness (Lahariya et al., 2020), many educational institutions in India have offered English for Medical Purposes (EMP) courses for medical students. The main aim of the EMP course is to increase medical students' discipline (Farea & Singh, 2024) and the specific English language proficiency required to join the relevant profession and discourse community as authorized members (Curle, Yuksel, Aizawa, Thompson, & Rakhshandehroo, 2024).

Laili and Nashir (2023) and Semartini (2022), who reviewed EMP course design for medical students in English as a second Language (ESL), The context indicates that many ESL nations are facing an increasing demand for tailored, learner-centered EMP courses to assist healthcare professionals in global communication, alongside professionals in global communication, and in addition, professional resources and materials that are reported in English. Similarly, a few research studies indicate that EMP programs, primarily aimed at medical students in EFL nations, are crucial in assisting them with their career trajectories (Nastiti, Tamela, Fajaria, Amanda, & Fadhil, 2023; Sari, Puspita, & Syahrial, 2022; Suwandi & Wafa, 2020). This includes enabling them to learn in English and to communicate better with other healthcare providers on both international and intranational scales, thereby enhancing their respective levels of professionalism (Boksa & Pennathur, 2024).

Although EMP courses for Allied Health Science students are becoming more popular, there has been limited research focused on exploring the specific, practical, or educational needs of students. In many East Asian nations, English functions as a second or foreign language, making it vital to perform continuous needs analysis to fully grasp students' objectives and particular requirements within the intended discourse community. The needs assessment outlines the requirements, deficiencies, and desires of students in ESP courses. The students' necessities, lacks, and wants in the ESP courses are described by the needs analysis (Hutchinson & Waters, 1987). Simultaneously, a needs analysis is required to evaluate and categorize students' abilities (Smith, Windle, & Johnny, 2025).

This study examines the learning objectives and practical requirements of allied health science students in India, specifically regarding medical English courses for medical students, in relation to the values and norms of the target community. Taking all of the preceding into account, this research seeks to address the subsequent objectives.

1. To identify the medical student's specific needs, lacks, and wants in language learning that are required effectively in their education and medical careers.
2. To understand students' preferred learning styles and modes in English language learning for medical students.

2. LITERATURE REVIEW

In one of the initial reviews, Strevens (1977) characterized the developing area as a subfield of English, which he referred to as "special-purpose language teaching," intended to be differentiated from standard language instruction based on three key criteria: "the importance of the learner's purposes, the alignment of the curriculum with the

learner's purposes, and the suitability of the methodology used for the teaching-learning situation." English for Specific Purposes (ESP) pertains to the instruction and acquisition of English tailored to the unique communicative requirements and practices of a specific educational or professional group. The ESP course was designed to evaluate the goals and requirements of students. Nevertheless, ESP involves a needs analysis that identifies the language skills required by students (Marcu, 2020). The primary objective of the ESP course is to deliver specific-centered language instruction that helps meet students' requirements (Choi, 2021). ESP procedures consist of five stages that the teacher must understand to meet their needs. The key stages are needs analysis, course design, learning assessment, and evaluation (Nguyen, Nguyen, Le, & Nguyen, 2023). Many researchers claim that the rise of ESP is due to the importance of learners' attitudes and motivation to learn.

Astri, Sahril, and Misnawati (2022) state that the level of English has increased, especially in ESP courses. The demand for ESP courses requires higher educational institutions to internationalize. Previous studies indicate that the innovation was implemented for students using Kahoot, Quizlet, Hemis, and Noodle. These applications aim to enhance the existing ESP curriculum and achieve the objectives of English language instruction more effectively (Solihati & Rahayu, 2021). The researcher draws a framework containing five elements of skills, and the implementation of 21st-century skills as the new learning paradigm is being carried out to achieve the results of students' career and life skills (Rahmawati, 2019). The importance of language skills was reported by Tang (2023). The researcher indicated that students primarily acquire knowledge at school and make efforts to enhance their English abilities on their own (Solihati & Rahayu, 2020).

Previous research has demonstrated that out-of-class tasks can further students' language skills and help them become more independent learners. Materials also need to be motivating and encouraging. ESP instructors should focus on providing quality materials. This involves selecting appropriate materials, tailoring activities to meet students' requirements, and incorporating additional activities. These elements are engaging, inspiring, and facilitate effective learning (Marcu, 2020). Following that, in ESP classes, importance should be given to the practice of speaking. ELT focuses on speaking skills to assess learning progress, with similar importance given to the practice of speaking skills in ESP classes (Borisova, Nikitina, Shparberg, Borisov, & Poletaeva, 2019). For example, past studies show that medical students are satisfied with learning methods (RICH). R denotes the process of "Research-based learning," I refers to "Integrated curriculum," C stands for "Cooperative methodology," and H represents "Humanistic outcomes." This model embodies the integration of all aspects of the English language along with the traits of language acquisition across different scientific disciplines. This element allows students to acquire knowledge. The use of the RICH model in ESP courses for medical students represents a novel effort to merge English instruction (Zhang, Jin, & Du, 2020). Different stages of language learning can occur in various environments, such as traditional school settings or technology-based learning environments. Integrating educational technology with conventional methods results in successful language acquisition and a comprehensive educational experience (Mahdi, 2018). Gürkan (2018), Butarbutar, Uspayanti, Bawawa, and Leba (2020), and Kohnke (2020) stressed the importance of boosting students' motivation when utilizing mobile apps for second language learning since it is more enjoyable and convenient compared to traditional learning methods.

One of the studies used the Q methodology to identify factors that influence students' perspectives on mobile English learning applications. Three factors were recognized from the student's data: Outcome-oriented learning, Function-oriented, and Motivation-oriented (Lu & Xiong, 2023). Klimova and Polakova (2020) found that students and teachers concur that the learning outcome is the most crucial aspect of an English learning app. Morsy, Atta, Elsheikh, and Shehata (2025) examined the relationship between students' online SRL approaches and self-efficacy. The most effective predictor for explaining variations in students' self-efficacy in English listening and speaking was found to be self-assessment. Moreover, how learners organize their surroundings can greatly impact their confidence in speaking and listening. Despite many studies investigating the educational requirements of Allied Health Science students, there is a lack of research specifically focused on their needs for ESP courses, curriculum environments, and

design among Allied Health Science students. This gap is particularly evident in the region, which requires analysis to address limited access in Tamil Nadu among Allied Health Science students.

Despite the increasing global emphasis on evaluating education in health sciences, there remains a notable lack of literature on needs analysis for Allied Health Science students. While previous studies have focused on various aspects of ESP course development, curriculum setting, and professional abilities in allied health education, no research has yet investigated the specific needs and requirements of allied health science students in the Virudhunagar District, Tamil Nadu, India. This gap is particularly significant given the region's specific healthcare educational needs. Addressing this gap is essential because it will provide valuable information for adapting educational strategies to meet students' needs. This research will explore the following questions.

1. What are the needs, lacks, and wants to be perceived by the Allied Health Science students during English language learning?
2. What are the preferred learning methods and modes of learning English among allied health science students?

3. METHODOLOGY APPROACH

Hutchinson and Waters (1987) framework, the current study adopts a needs analysis approach to identify both the target needs and learning needs of first-year medical students. The authors on needs analysis in English for medical purposes and second language education generally highlight the importance of allied health science students and employing diverse data collection techniques to establish a foundation for data integration. The study was conducted at Kalasalingam Academy of Research and Education. To pursue this purpose, it offers two courses in the first year (communicative English), excluding the medical English course.

The university requires that every first-year medical student enroll in the 2-credit English course. Its primary goal is to enhance LSRW skills, cultivate a strong vocabulary for improved communication, utilize proficient English for report writing, letter crafting, and email correspondence, engage effectively in public speaking, boost listening comprehension, and actively participate in public debates and discussions. This study meets the needs of allied health science students to the extent that it complements the quantitative response from a small sample of medical students. On the other hand, access to medical students can arise in need analysis for EMP.

The research employed a quantitative exploratory approach, specifically a cross-sectional survey design, which is effective for examining the prevalence and relationships of phenomena within a specific population (Wang & Cheng, 2020). Through this design, the researchers aimed to gain a comprehensive understanding of a particular population and group. To achieve this, they used purposive sampling, selecting participants with specific traits relevant to the study's objectives. In this case, Allied health science students were chosen as participants. Data analysis was conducted using descriptive statistics with SPSS Version 21. Descriptive statistics help summarize and display data effectively, allowing researchers to draw meaningful conclusions. The EMP course is specifically designed for students in the medical field and is exclusively available to medical students.

3.1. Participants

Allied health science students from medical school were selected based on a sampling method. The sample for this study included students from Physiotherapy, Medical Laboratory Technology, Clinical Psychology, Occupational Therapy & Anesthesia, and Physician Assistants who were enrolled in an English for Specific Purposes course in their first year of academic education. The method used was a cross-sectional survey with a sample size of 12 students, out of a total population of 36 students for the case study. The participants consisted of 6 students from Physiotherapy, 1 from Medical Laboratory Technology, 1 from Clinical Psychology, 2 from Occupational Therapy & Anesthesia, and 2 from Physician Assistant. Fifty percent of the participants were female, and fifty percent were male. After obtaining consent, a self-administered, closed-ended survey was distributed online to the participants. The survey was conducted at a single point in time to assess the needs of the members who agreed to participate.

3.2. Instruments

The structured questionnaire was adapted from a creation by Gessesse (2009). The questionnaire used in this study consisted of two main types of questions: Likert scale items and multiple-choice questions. Likert scale items were designed to assess students' attitudes, perceptions, and experiences regarding English language learning in the medical field. These items used a five-point scale ranging from "Strongly Disagree" to "Strongly Agree." Additionally, multiple-choice questions with nominal response options were included to gather information about students' preferred learning methods, language learning backgrounds, and demographic data.

3.3. Data Collection and Analysis

Combining these question types provided quantitative and descriptive insights into the participants' learning preferences and needs. Google Forms was used to design the questionnaire, and WhatsApp was used to circulate it. The questions in the questionnaire are set to be mandatory for submission. The reliability of the scale was evaluated with Cronbach's Alpha, resulting in a value of 0.862 based on 31 items. This indicates a high level of internal consistency within the scale, implying that the items are well-correlated and measure the intended construct reliably. Generally, a Cronbach's Alpha above 0.8 is considered strong. The questionnaire covered medical students' goals for learning English, the importance of learning English, student preferences for learning environments, language learning needs related to primary language skills (reading, writing, speaking, and listening), and modes of learning.

Data can be acquired from various instruments and sources in the relevant literature. To conduct a comprehensive requirements analysis, data was collected over one month, July 2024. Data for needs analysis can be gathered through questionnaires, such as using a Google Form to collect data from 12 medical students who volunteered to participate. A review of the literature was conducted prior to creating the data collection tools. The researchers communicated the research goals and procedures to the participants before data collection, and official consent was obtained from all participants.

4. RESULTS

4.1. Demographic Information

The sample size consisted of 12 participants, equally divided between male and female genders. Specifically, there were 6 female and 6 male participants, each accounting for 50% of the total sample size. The equal gender representation facilitates a more accurate and generalizable interpretation of the study's findings, avoiding gender-related confounding variables. The participants included various healthcare specializations. The largest group of participants, 6 individuals, specialized in Physiotherapy. The next group, comprising 3 participants, specialized in Operation Theatre and Anesthesia Technology. Smaller representations were observed from the fields of 1 Clinical Psychologist, 1 Medical Laboratory Technologist, and 1 Physician.

4.2. English Language Experience

The students had English language exposures and experiences during their school days. Most of the students (8) mentioned that they studied English as a subject at school, while other participants (4) attended an English-medium school. This indicates that most participants learned English primarily as an academic subject rather than through full immersion in the language via schooling. Those who attended English-medium schools may have had broader exposure to the language, possibly resulting in higher fluency than those who only studied English as one subject. All participants fall into these two categories, highlighting their varied backgrounds in English learning. None of the students have been abroad with native speakers.

4.3. Students Views on English Language

Out of 12 participants, 9 students considered English the most important language, while 3 students regarded it as very important. This demonstrates that all participants recognize English as a language, with the majority viewing it as crucial. These results indicate that English plays a central role in the participants' perspectives, which could impact their academic and professional goals, where English language skills are often seen as essential.
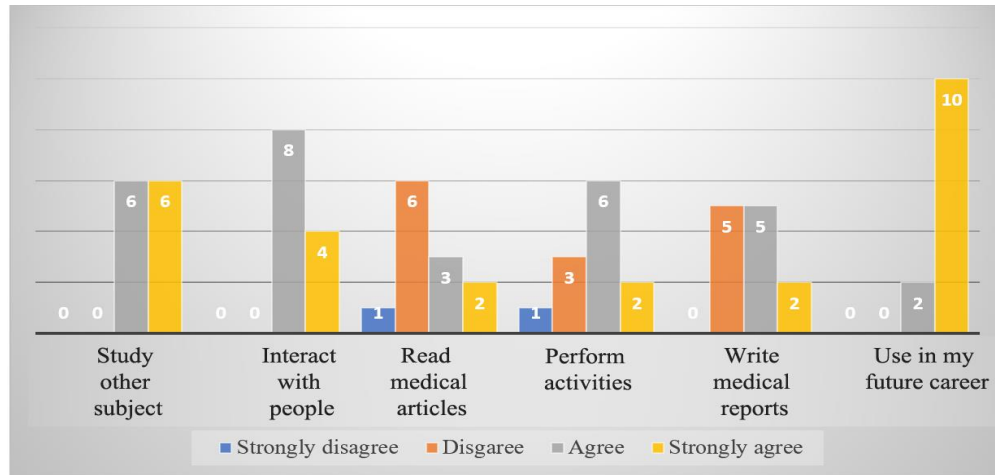

Figure 1. The students' purpose of learning in English.

Figure 1 illustrates how respondents perceive the use of English across various aspects of their academic and professional lives. These activities include studying other subjects. The responses from participants are evenly split between those who strongly agree and those who agree that they use English to study non-English subjects. When interacting with people, several participants agree and strongly agree that they use English. For reading medical articles, the majority disagree that they use English for this purpose. This indicates a preference for reading in another language or suggests that it is less common for this group to read medical literature in English. Regarding performing activities, most respondents agree that they use English for various tasks. While writing medical reports suggests that English is important for report writing, it is not universally relied upon. The strongest agreement is observed in the context of using English in their future careers, with the majority believing that English will be crucial for their professional growth and success.
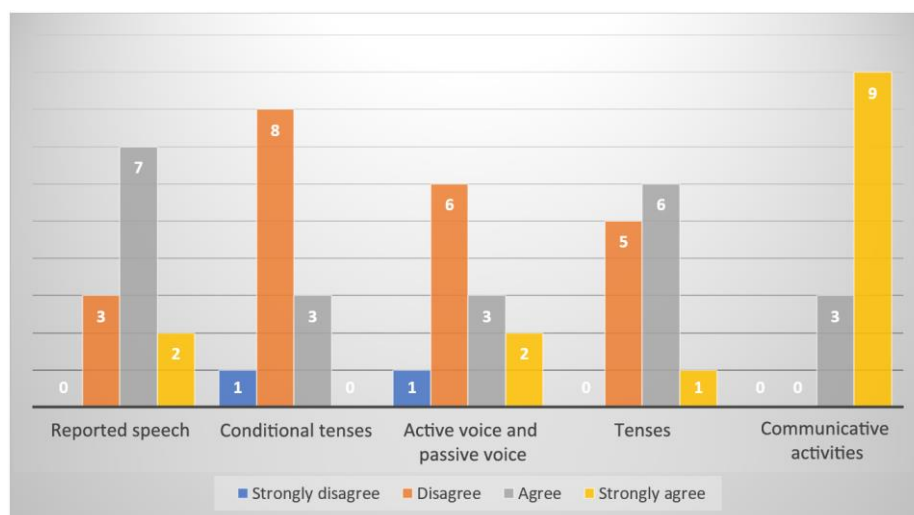

Figure 2. The students' language item preference for learning English.

Figure 2 illustrates students' preferences regarding various aspects of English language learning, including grammar structures and communicative activities. Among the areas presented, communicative activities received the highest level of positive response, with 8 students indicating "Strongly Agree" and 3 selecting "Agree," suggesting a strong preference for interactive and practical language use. In contrast, conditional tenses showed the highest level of disagreement, with 8 students selecting "Disagree" and only 1 selecting "Strongly Disagree," indicating a general lack of interest or perceived difficulty with this grammatical area. Tenses and active and passive voice also reflected moderate levels of disagreement, while reported speech had the highest agreement rating (7 students) after communicative activities. These findings suggest that students prefer practical, communicative approaches to learning English over more complex grammatical structures.
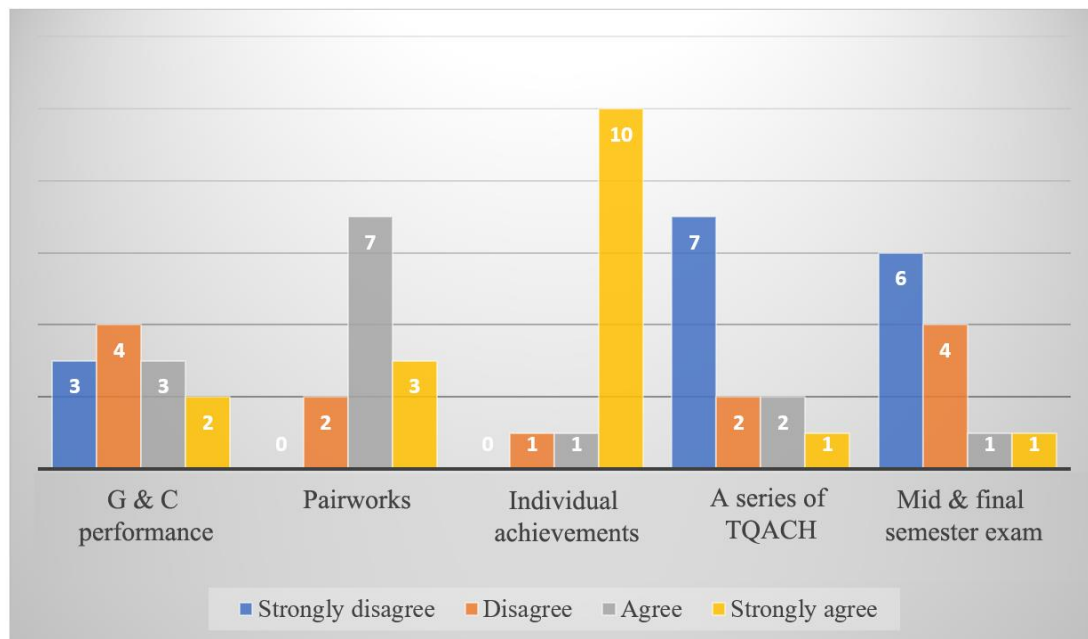

Figure 3. The students' perceptions of various assessment approaches.

Figure 3 depicts students' preferences for various types of testing during their English learning process. The data is divided into four categories, with responses ranging from "Strongly agree" to "Strongly disagree." In G & C (Group & Class) Performance, student attitudes are divided; although the majority support utilizing this method for evaluation, some disagree. Pair Work: while many students agree with this strategy, some vehemently disagree. For individual achievements, many students strongly prefer individual-based assessments. A series of TQACH (Tests, Quizzes, Assignments, Classwork, and Homework): responses are moderate, with most students agreeing, but there is no clear consensus for or against it. Mid- and final-semester examinations show more balanced responses, with students' perspectives both agreeing and disagreeing, but without extreme polarization.

4.4. Language Learning

The analysis of student insights regarding English language learning, as presented in Table 1, reveals significant trends in skill prioritization, learning modes, preferred tools, and technological engagement. The data were gathered from a sample of 12 first-year allied health science students, focusing on their preferences and behaviors related to English for Medical Purposes. Findings indicate a dominant inclination toward speaking skills, online and self-paced learning, as well as a high reliance on mobile technology for language-related activities.

Table 1. Students' insights on modes, tools, and preferences in English language learning.

Variables	value	N	%
Most perceived important skills	Listening	1	8.3
	Speaking	11	91.7
Mode of Learning	Offline mode	2	16.7
	Online mode	10	83.3
Type of learning	Cohort-based learning (generating a course that includes a group of students)	2	16.7
	Self-paced learning (students study according to their schedule and time).	10	83.3
Use tools to improve English	No	11	91.7
	Yes	1	8.3
Primarily a device used for students' studies.	Laptop	1	8.3
	Smartphone	11	91.7
Spend time on their device	0-1 hour	5	41.7
	1-2 hours	4	33.3
	3-5 hours	3	25
A device useful for participating in English.	Yes	9	75
	No	3	25

4.5. Language Skill Prioritization

The majority of respondents (11) identified speaking as the most important skill in their English language learning journey. In contrast, only one student prioritized listening. This suggests a communicative need or perceived academic and professional relevance placed on oral production skills. Students may foresee the need to articulate medical terminology, communicate in clinical settings, or engage in discussions in English, thereby emphasizing verbal fluency over receptive skills such as listening. This distribution underscores the necessity for curriculum designers and language instructors to emphasize productive skills, especially speaking, in medical English language courses (Al-Jamili, Aziz, Mohammed, Almogahed, & Alawadhi, 2024).

4.6. Learning Mode and Type Preferences

Regarding learning modes, an overwhelming majority of students (10) preferred online over offline methods. This preference aligns with global trends in digital learning adoption, particularly following the post-pandemic shift toward remote education. Online learning is often associated with greater flexibility, diverse multimedia resources, and increased opportunities for asynchronous engagement, which might explain its popularity among the sample group.

Similarly, the preference for self-paced learning (10) over cohort-based learning (2) further confirms students' desire for flexibility in managing their own learning schedules. Medical students, who typically face heavy academic workloads, may find self-paced modules more accommodating to their time constraints (Chen, Liu, & Liu, 2024). This finding suggests that language learning platforms and programs designed for this demographic should integrate modular and on-demand learning structures rather than rigid schedules and group-based progressions.

4.7. Use of Tools for Language Learning

When asked whether they use any tools to improve their English, only one student responded affirmatively. This suggests that students are proactive in seeking supplementary aids to enhance their proficiency. The term "tools" likely encompasses mobile applications, online platforms, vocabulary builders, grammar checkers, and other digital resources (Du & Daniel, 2024). The remaining 11 respondents reported not using any tools; they might rely solely

on academic materials or classroom instruction, or they may face barriers such as limited access or lack of awareness. These findings highlight a strong inclination toward self-regulated learning and the integration of technology into language acquisition.

4.8. Technology Usage Patterns

In terms of devices used for studying, 11 students reported primarily using smartphones, while only one used a laptop. This reflects the portability and ubiquity of smartphones, particularly in contexts where students require constant access to study materials and learning tools (Pituxcoosuvarn, Radhapuram, & Murakami, 2024). Given this reliance, language learning resources should be optimized for mobile platforms, ensuring ease of use and interactivity across smaller screens and less powerful processors (Butarbutar et al., 2020). The data also reveal varying amounts of daily screen time. A plurality (5) spend between 0 to 1 hour on their devices, followed by 4 students using them for 1 to 2 hours, and 3 students for 3 to 5 hours. While these durations are relatively modest, they still provide opportunities for language learning through short, consistent engagements. Developers of learning tools and course designers should consider implementing microlearning strategies, such as bite-sized lessons or gamified tasks, to suit these usage patterns.

4.9. Perceived Usefulness of Devices for English Learning

Interestingly, only 9 respondents indicated that their devices were useful for participating in English language learning, while 3 respondents did not perceive their devices as useful in this regard. This contradicts earlier findings, where most students reported using smartphones and tools for language learning (Yang et al., 2024). The discrepancy may arise from students differentiating between general device usage and effective pedagogical utility. It may also reflect a lack of well-designed, engaging, or curriculum-aligned digital resources for English learners in the medical field. This gap highlights a crucial area for improvement in both tool development and digital literacy training, ensuring students are not only equipped with devices but are also able to harness their full potential in language learning contexts.
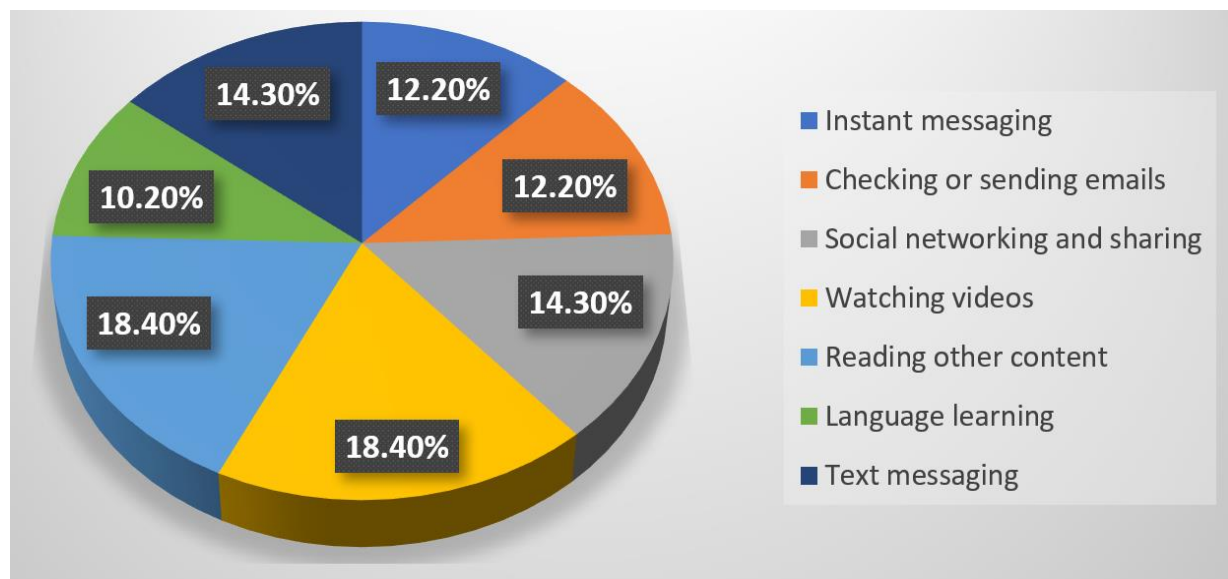
Figure 4. The purpose of using devices by students.

Figure 4 illustrates the purpose of medical students' use of devices; it pertains to the various objectives for which individuals use their devices. The results, depicted in a pie chart, categorize usage into multiple groups with their respective percentages. Reading other information (18.4%) indicates that the majority of device time is spent reading different types of information, such as news, blogs, articles, and other reading materials for learning and

entertainment. Watching videos (18.4%) is a major activity, likely including streaming from platforms like YouTube and watching episodes and movies. Text messaging (14.3%) shows that a significant proportion of people use their devices for texting, which remains an important mode of communication for both social and professional interactions. Social networking and sharing (14.3%) refers to time spent on social media sites such as Facebook, Instagram, and Twitter, where users communicate and share content. Instant messaging (12.2%) indicates that a smaller number of participants use their devices for instant messaging through apps like WhatsApp, Telegram, and Messenger. Checking or sending emails (12.2%) demonstrates that email remains a frequently used communication method, especially for business or formal purposes, as evidenced by the 12.2% of users who primarily use their smartphones for emailing. Language learning (10.2%) accounts for a smaller but significant portion of device usage, likely involving mobile apps and online resources for learning languages.

5. DISCUSSION

The research findings, the purpose of learning English, show that all participants considered English to be crucial, with 75% naming it the most important language for their education and careers. The students agree on the necessity of English for their future jobs, recognizing its vital role in professional success. Skills Preference: Speaking was largely seen as the most significant skill (91.7%), followed by listening, with no clear preference for reading or writing. This emphasizes the importance of oral communication abilities in professional situations. Language Learning Modes and Tools: there is a strong preference for online learning (83.3%) over offline techniques, while self-paced learning (83.3%) is favored over cohort-based learning. Most students (91.7%) study on smartphones, with mobile data (4G/5G) serving as their primary internet access. The students prefer to learn online via mobile devices. Mobile learning is essential in maintaining young people's interest in learning, whereas traditional methods have declined.

The study investigated the needs of students in the Allied Health Science program. EMP courses should be designed while taking into account the particular language needs of students and the local language contexts in which they engage with English (Saidi & Afshari, 2021). The findings of this research highlight the importance of performing regular needs assessments and developing instruction that caters to students' unique learning goals as well as their practical needs. It is essential to understand the needs and concerns that students bring to EMP courses in order to effectively support them in fully developing not only linguistic and pragmatic skills but also the discourse framework and socialization practices necessary for their profession (Treadaway & Read, 2025).

This study found that first-year allied health science students preferred self-paced learning through an online mode (Table 1). Similar to Almayez, Al-Khresheh, Al-Qadri, Alkhateeb, and Alomaim (2025), this study's findings indicate that the interactive app improves students' motivation and engagement in learning. Medical students acquire speaking skills, which are considered the most important skills for functioning effectively in target situations (Hussain & Singh, 2021; Kodweis et al., 2023). According to Al-Kadi (2018), Students' needs are not being met due to a lack of need analysis, and ESP is centered on general aims rather than individual demands. Previous studies suggest that medical students choose ESP courses that prioritize four language skills for academic and professional success (Pun & Onder-Ozdemir, 2023). This study focuses on allied health science students' individual demands compared to previous findings. It finds that students demand individual learning, such as communication activities practiced through self-paced learning, in an online mode.

Therefore, enhancing students' abilities without considering their needs is likely to lead to failure (Trigueros, Fernández-Ortega, Aguilar-Parra, & Collado-Soler, 2024). As a result, learners struggle to meet the professional expectations in their target situation (Haroen, Adistie, Agustina, & Juniarti, 2024). The incorrect ESP curriculum primarily affects students' academic activities, which in turn undermines their career success (Ulla, Bucol, & Ayuthaya, 2022). The results regarding how often medical students use English and the significance of English proficiency help identify their language requirements (Ji & Zhang, 2025). This research finding indicated variations in which medical

students thought the most essential skills were speaking (Table 1). Furthermore, (Trujeque-Moreno, Romero-Fernández, Esparragoza-Barragán, & Villa-Jaimes, 2021) observed that revising ESP programs within the Mexican context is essential for enhancing students' eagerness to use English in their professional environments. Thus, ESP courses should not be established without considering students' needs. An inadequate ESP curriculum has a significant impact on students' academic preparedness, which, in turn, hinders their career success. However, current ESP courses should be improved to meet students' English language demands and perspectives (Dou et al., 2023). The findings of this study indicate that students' most preferred goal is learning English and enhancing their confidence in communication. A study examines how non-native Egyptian healthcare professionals perceive the influence of social media on acquiring medical English vocabulary and its common use for educational purposes through posts, videos, and discussions. Notable aspects that enhance the learning experience include user-friendliness, free availability, options to modify or share material, and participation in conversations that can be both private and public. Figure 4 illustrates that the majority of students utilize their mobile devices to access instructional videos, engage with EMP course content through video-based learning, and subsequently obtain certificates.

What makes mobile learning so appealing is its relationship with indoor and outdoor movement in both official and unofficial settings, allowing learners to take the lead in some ways. Mobile learning extends learning beyond the classroom and teachers' control. Similarly, progress is being made in science and technology. Education is rapidly advancing due to developments in modern technology and the internet. Table 2 highlights that the study's findings—emphasizing students' need for English to support career goals, their lack of speaking skills, and their preference for online, self-paced, communicative learning align with existing research while specifically addressing the underexplored context of Indian Allied Health Science students.

Table 2. Comparative analysis of findings with existing studies.

S.no.	Research questions	Exciting findings	References	The result of the present study
RQ1	What are the needs, lacks, and wants perceived by Allied Health Science students during English language learning?	Students' most perceived important skill is speaking; learning goals include communication with others and support for future careers. Learning English aims to prepare students for a professional career.	Farea and Singh (2024)	Need: According to students' perceptions of the purpose of learning English (need): English will help build their careers and also be used for their future careers. (Figure 1)
			Laili and Nashir (2023)	Lacks: Most students have never used any tools to enhance their English, and although they perceive speaking and listening as the most important skills, speaking is identified as one of their major deficiencies. (Table 1)
			Arroyyani, Widiyati, and Maryani (2022)	Wants: Students want to fill their gaps through online learning with a strong preference for communicative activities to improve their skills in the medical setting. (Figure 2 & Table 1)
RQ 2	What are the preferred learning methods and modes of learning Medical English among allied health science students?	Online platforms offer many advantages for enhancing medical learners' education, and proficiency in English positively influences their learning outcomes.	Desta, Workie, Yemer, Denku, and Berhanu (2021)	The findings reveal that students prefer online mode and self-paced learning. (Table 1)

6. CONCLUSION

This study conducted a needs analysis of allied health science students enrolled in an English for Medical Purposes (EMP) course to better understand their language learning needs, preferences, and goals. The findings show a considerable emphasis on communication skills, particularly speaking, as critical to academic performance and professional development. A significant 91.7% of participants preferred speaking skills over other language skills, suggesting that ESP courses should emphasize oral communication skills to meet students' practical demands in their fields. ESP programs must consider learners' specific needs and contexts to increase relevance and effectiveness. Furthermore, the survey shows that students strongly prefer online, self-paced learning over offline, cohort-based learning. With 83.3% of participants selecting online learning, it is clear that flexible, digital learning environments are compatible with students' learning styles and technology use habits. 91.7% of students use smartphones as a primary device for accessing educational content. This trend emphasizes the value of mobile learning as a convenient and accessible option for language acquisition in the digital era. These findings indicate the need for ESP courses tailored to these students' specific communicative needs, focusing on online and flexible formats that can adapt to their professional requirements and promote effective, learner-centered growth.

6.1. Limitations

The small sample size (12) and focused emphasis on first-year students limit the generalizability and comprehensiveness of the study. While the study may provide important insights into the immediate issues experienced by new students, it only offers a partial view of the student experience. Furthermore, because only a limited number of students participated, the results might not accurately represent the diversity of student needs. Future studies should target a broader and more varied sample to improve the reliability and external validity of the findings.

6.2. Recommendations

Future studies should aim to address the limitations identified in this research.

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