ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL
Available Online: https://assajournal.com
Vol. 5 No. 02 Apr-Jun 2026.Page#.223-240
Print ISSN: 3006-2497 Online ISSN: 3006-2500
Platform & Workflow by: Open Journal Systems
https://doi.org/10.5281/zenodo.19698675

Necessities, Lacks, and Wants in Allied Health Education: An ESP Needs Analysis of English Language Learning Priorities among Pakistani Health Sciences Students

Tooba Sadia
BS (Hons) Applied Linguistics, Department of Applied Linguistics, Government College University Faisalabad, Pakistan
toobasadia397@gmail.com
Ishwa Hassan
BS (Hons) Applied Linguistics, Department of Applied Linguistics, Government College University Faisalabad, Pakistan
ishwahassan.pk@gmail.com
Sehrish Nawaz
BS (Hons) Applied Linguistics, Department of Applied Linguistics, Government College University Faisalabad, Pakistan
sehrishnawaz2004@gmail.com
Muhammad Asim Khan (Corresponding Author)
Visiting Lecturer, Department of Applied Linguistics, Government College University Faisalabad, Pakistan
asim1412@gmail.com

Abstract
This study examines the English language learning requirements of allied health students at Government College University Faisalabad (GCUF) in Pakistan, based on the Hutchinson and Waters (1987) needs analysis model of necessities, lacks and wants. A quantitative descriptive survey approach was employed and 309 allied health students (DPT, Pharm-D, MLT, RIT, Nursing, OTT) participated in the 3rd, 5th and 7th academic semesters. Structured five-section questionnaire was used to measure perceptions of previous Functional English teaching, self-competence in professional communication, and ESP course needs and priorities, as well as language learning preferences through a 5-point Likert scale. The analysis was done through SPSS, descriptive statistics, Cronbach alpha, independent samples t-tests and one-way ANOVAs were calculated. Findings indicate that the needs of students revolve around patient communication and counselling (90.0% agreement; first on the D8 checklist as rated by 64.7% of the respondents), clinical documentation and field-specific medical vocabulary. Lacks represent a medium assessment of the current Functional English classes (M = 3.46, 0893), the lowest score is given to the genuine use of material (M = 3.21). Wants are articulated by high demands on authentic clinical scenarios (M = 4.38, 89.6%), activities that are task-focused and interactive learning modalities. The instrument reliability was also good (α=.917). There were no found large differences in ESP needs in terms of gender or semester, which proves the universality of the need among the aq. The study presents empirically-based evidence regarding the design of a contextually-appropriate ESP course in allied health education at GCUF, and higher education as a public sector.

Keywords: *necessities, lacks, wants, ESP needs analysis, allied health education, health sciences English, Pakistan, GCUF, clinical communication, Hutchinson and Waters.*

1. Introduction

The English language proficiency in allied health education is not just an academic qualification; but a professional safety qualification. Allied health professionals such as physiotherapists, pharmacists, medical laboratory technologists, radiographers, nurses, and occupational therapists are supposed to record clinical findings correctly, discuss complex procedures with patients in a simple language, work in multidisciplinary health care teams, and interact with a constantly growing amount of English-language scientific literature. In Pakistan, where English is the common language in tertiary institutions of the public sector, an ongoing disjunction between the general-purpose English teaching students are exposed to and the specialised communicative needs of the allied health practice is a crucial curricular gap (Khan et al., 2024; Khalili and Tahririan, 2020).

Poor quality of teaching of general English to serve professionally situated communicative needs is established internationally. Research by Iran (Khalili and Tahririan, 2020, 2023) and Bangladesh (Al Amin et al., 2024), Malaysia (Lopez and Razak, 2025), Indonesia (Arroyyani et al., 2022; Danial et al., 2023) and the UAE (Ibrahim Mohamed and Al The disciplinary response to this problem in alignment has been called English for Specific Purposes (ESP), which has positioned course design decision making between a systematically designed needs analysis that determines what learners should be in a position to do linguistically in their respective target professions (Hutchinson and Waters, 1987).

In Pakistan, the analysis research on ESP has become a momentum especially in the legal education (Khan et al., 2024) and in general medical contexts (Khalid, 2016). But the allied health sector, which also covers a wide spectrum of other health professions other than medicine has virtually not been given any empirical needs analysis in the higher education Pakistani context. One of the most valuable institutional locations to such inquiry is Government College University Faisalabad (GCUF), one of the largest universities in the Punjab in the public sector, with a large allied health faculty. In the absence of locally-based data concerning student needs, deficiencies, and desires, ESP curriculum reform at GCUF can be duplicated in the generic solutions that do not take into account the communicative realities of allied health practice.

The current research fills this gap by quantitatively analysing ESP needs of 309 allied health students at GCUF through the operationalisation of the Hutchinson and Waters (1987) framework in a multi-section survey instrument that is specifically designed. The mapping of tripartite constructs of necessities (what students need to know to operate professionally), lacks (the disparity between present competence and necessary level), and wants (what students express through course preferences) by systematically mapping the constructs, creates actionable, statistically sound evidence on the design of ESP courses in Pakistani allied health education.

1.1 Research Questions

The study is guided by the following research questions:

RQ1: What are the perceived necessities of allied health students at GCUF in terms of English for their academic, clinical, and professional communication?

RQ2: What lacks do students identify, as evidenced by their evaluation of prior Functional English instruction and their self-rated professional communication competence?

RQ3: What wants do students express regarding the content, methods, and priorities of an ESP course for allied health education?

RQ4: Do necessities, lacks, and wants differ significantly by gender or academic semester?

2. Literature Review

2.1 The Hutchinson and Waters (1987) Framework: Necessities, Lacks, and Wants

This study has a conceptual architecture based on the learning-centred ESP needs analysis framework of Hutchinson and Waters (1987). In this context, the needs are not unitary, but rather disaggregated into three constructs that can be analyzed. The necessities are the requirements of the target situation- what a learner needs to know and be able to do in order to work as an effective allied health professional. In the current research, the concept of necessities is operationalized, with the help of Section D items (ESP course expectations) and the D8 priority checklist, requiring students to state the most important English skills that would help them in their professional lives in the future.

Lacks are the difference between what the learners already have and what they require- the difference between the current competence and the desired competence. Section B (assessing the previous English instruction) and Section C (self-reporting professional communication competence) are the lacks covered in this study. Ineffective ratings on Section B items or low Section B ratings that are incongruent with high Section D demands, are direct empirical evidence of lacks. Wants are the desired and preferred learning styles expressed by the learners- the subjective aspect of the needs that when put into the course design make the learners more motivated and interested. The operationalization of wants is done in Sections D and E, which cover content and methodological preferences.

This three-pronged model has produced a fruitful culture of health sciences ESP research in the world. Khan et al. (2024) used a similar framework to Pakistani undergraduate law students and showed that the three-construct model can be translated to Pakistani higher education setting and provides high-quality, policy-relevant data. The current research incorporates the identical theoretical framework to allied health students in GCUF, the first time.

2.2 Necessities in Health Sciences ESP: Evidence from the Literature

The most commonly used terms in international literature as the fundamental requirements of health sciences English proficiency are patient communication, clinical documentation and medical vocabulary. As Alharby (2005) proved, English was the most needed communicative language by the health professionals in Saudi Arabia and reading, writing and communication with patients were the most frequent language needs. Lopez and Razak (2025) specifically addressed the population of the allied health novice students in Malaysia, revealing the academic and professional communicative needs with the help of focus group interviews and emphasizing the role of clinical interaction and report writing. According to Hekmati et al. (2020), the four language skills were appreciated by the students, instructors and practitioners in Iran; however, the four language skills were ranked differently, with speaking and listening as sub-skills, which demonstrated the greatest variation among the stakeholders. Al Amin et al. (2024) reported that academic reading, professional writing, and oral communication at high stakes were needs among medical students and healthcare professionals in Bangladesh.

2.3 Lacks: The Inadequacy of General English Instruction

The common theme of the health sciences ESP literature is that traditional courses in English do not sufficiently prepare the professional communicative skills students of the health sciences need-the lacks dimension of the Hutchinson and Waters (1987) model. Khalili and Tahririan (2020) discovered that the English in Medical Purposes courses in Iran failed to address the needs of students, and especially, the courses had weaknesses in terms of clinical vocabulary alignment, the use of authentic materials, and the combination of four skills. Khan et al. (2024) found that the present state of English courses of Pakistani universities was rated with moderate scores (means 3.543.75), and students were always dissatisfied with their needs in specialized

course materials in the legal field, which is very generalizable to the case of the related course of allied health education. A lack of correspondence between student-reported needs (listening and reading) and teacher beliefs (writing and listening) in one Yemeni university were reported by Farea and Singh (2024), highlighting the importance of student-centred needs information in the design of ESP courses.

In the Pakistani higher education scenario, a structural lack of ESP teaching of allied health students is an institutionalized lack. The reasons why the so-called English to Health Sciences Purposes is conceptually different to general medical English and needs its own empirically-based curricular models, Stötzer and Farkas (2024) note, are not yet available in most allied health programmes in Pakistan.

2.4 Wants: Learning Preferences and Pedagogical Orientations

The wants expressed by students in terms of ESP teaching continually converge on the authentic task-based learning, team-based learning, and using real professional materials. Ibrahim Mohamed and Al Jadaan (2024) discovered that UAE health sciences students valued communicative content and collaboration over grammar-intensive teaching, and highly valued technology-based activities. Danial et al. (2023) have shown that the development of learner-driven ESP materials can be practically viable in terms of developing a public health student population in Indonesia, but new strategies of teaching need to be updated. Arroyyani et al. (2022) indicated that vocabulary in context and correct writing tasks were priority tasks of public health students. These interactive, authentic, and collaborative learning preferences are quite congruent with theoretical concepts of Task-Based Language Teaching (Nunan, 2004) and Communicative Language Teaching (Savignon, 2002), both of which have been supported as the suitable pedagogical models in learning ESP in health sciences education.

3. Methodology

3.1 Research Design and Epistemological Stance

The research design chosen in this study uses a quantitative descriptive research design which is operationalized using a structured survey instrument. Its design is based on a positivist epistemological stance, which favours objective, replicative measures and statistical generalization (Creswell, 2018). The quantitative approach is commonly used in ESP needs analysis studies due to its ability to produce data that can be systematically compared across subgroups of learners and produce data that is susceptible to inferential statistics needed to test group difference hypotheses (Khan et al., 2024; Hekmati et al., 2020). The research uses the Hutchinson and Waters (1987) needs analysis framework as a vehicle of explicitly operationalizing the methodology of needs analysis in that a methodological fit is achieved between theory and the measurement items of the constructs.

3.2 Participants and Sampling

The study population included the allied health students studying at GCUF under six programmes: Doctor of Physical Therapy (DPT), Pharm-D, Medical Laboratory Technology (MLT), Radiological Imaging Technology (RIT), Nursing and Health Directing (HND) and Occupational Therapy Technology (OTT). Convenience sampling method was used and the final sample is N = 309 students. Sampling points of 3rd, 5th and 7th semester were chosen purposely since students at these levels were already required to do mandatory courses in Functional English and since they had already begun doing clinical and discipline specific courses- this is capable of helping them to meaningfully assess the sufficiency of their previous English teaching in relation to the requirements of their impending professional communication. The entire demographic profile is in Table 1.

3.3 Instrument Design

The ESP Needs Analysis Questionnaire had five segments based on the Hutchinson and Waters (1987) framework. Background demographic information was gathered in Section A. Section B (5 items; assessing previous Functional English teaching) operationalized the lacks construct by measuring the retrospective assessment of the relevance of healthcare, vocabulary congruence, inclusion of practical tasks, use of authentic material, and quality of assessment of their Functional English classes. Section C (8 items; professional communication self-competence) offered a self-evaluation prism of lacks, which included the levels of confidence students have in clinical writing, medical terminology, patient explanation, interprofessional communication, summarization, presentations, self-monitoring, and professional interaction. Needs and wants were operationalized in section D (7 Likert items + D8 priority checklist; ESP course needs and priorities) by provoking not only the intensity of the desire to learn certain content of the ESP course (Likert scale items) but also the relative importance of the areas of skills (checklist: select up to 3). Section E (3 items) included learning preference wants, which covered media engagement, role-play/simulation preference and collaborative learning orientation. All Likert questions utilized a 5 point scale (1 = Strongly Agree to 5 = Strongly Disagree) with the items recoded in such a manner that higher scores reflect stronger agreement.

3.4 Data Analysis

The SPSS (Version 26) was used to perform data analysis. All items and section composites were calculated using descriptive statistics (means, standard deviations and percentage agreement; which is the sum of the percentage of Agree and Strongly Agree responses). The internal consistency reliability was determined by Cronbach alpha (Tavakol and Dennick, 2011). Independent-samples t-tests were used to compare male and female students in section composites. ANOVAs were done to compare 3rd, 5th and 7th semester. The statistical significance was determined as $\alpha = .05$. The data of the D8 checklists were examined with the help of frequency and percentages of ranks.

3.5 Ethical Considerations

Data collection began with the relevant academic authority at GCUF giving its ethics approval. Students were made aware that this was optional, responses would be anonymous and that the data was to be used only in the research. No personal information was noted down.

4. Data Analysis and Findings

Findings are further organized in the sections below to fit into the Hutchinson and Waters (1987) tripartite framework. Demographic data are reported in section 4.1. The section 4.2 and 4.3 cover lacks (prior instruction evaluation and communication self-competence). In sections 4.4 and 4.5, the necessity and wants are discussed (ESP needs priorities and learning preferences). Section 4.6 reports reliability statistics. Inferential test results are reported in sections 4.7 and 4.8. Figures 1-8 have been placed where they are discussed.

4.1 Participant Profile

The demographic composition of the sample (N = 309) is summarized in Table 1. Most of the respondents were female (79.0%), which is typical of the gender distribution in Pakistani allied health programmes in public universities. The dominant age bracket was 20–22 years (47.2%). The largest cohort was 3rd semester (39.5%), and the 7th semester (31.4%). The percentage of DPT and RIT students in the sample was almost equal (49.5%).

Table 1

Demographic Profile of Participants (N = 309)

Variable	Category	n	%
Gender	Male	65	21.0
	Female	244	79.0
Age	Below 20	140	45.3
	20–22	146	47.2
	23 and Above	23	7.5
Semester	3rd Semester	122	39.5
	5th Semester	37	12.0
	7th Semester	97	31.4
Programme	DPT	79	25.6
	RIT	74	23.9
	Pharm-D	46	14.9
	MLT	43	13.9
	HND/Nursing	38	12.3
	OTT/Other	29	9.4

Note. DPT = Doctor of Physical Therapy; RIT = Radiological Imaging Technology; MLT = Medical Laboratory Technology; HND = Nursing & Health Directing; OTT = Occupational Therapy Technology. Semester totals exclude students from 4th, 8th and above semesters (n = 53 not included in ANOVA comparisons).

Figure 1. Section-Level Mean Scores Across the ESP Needs Analysis Survey

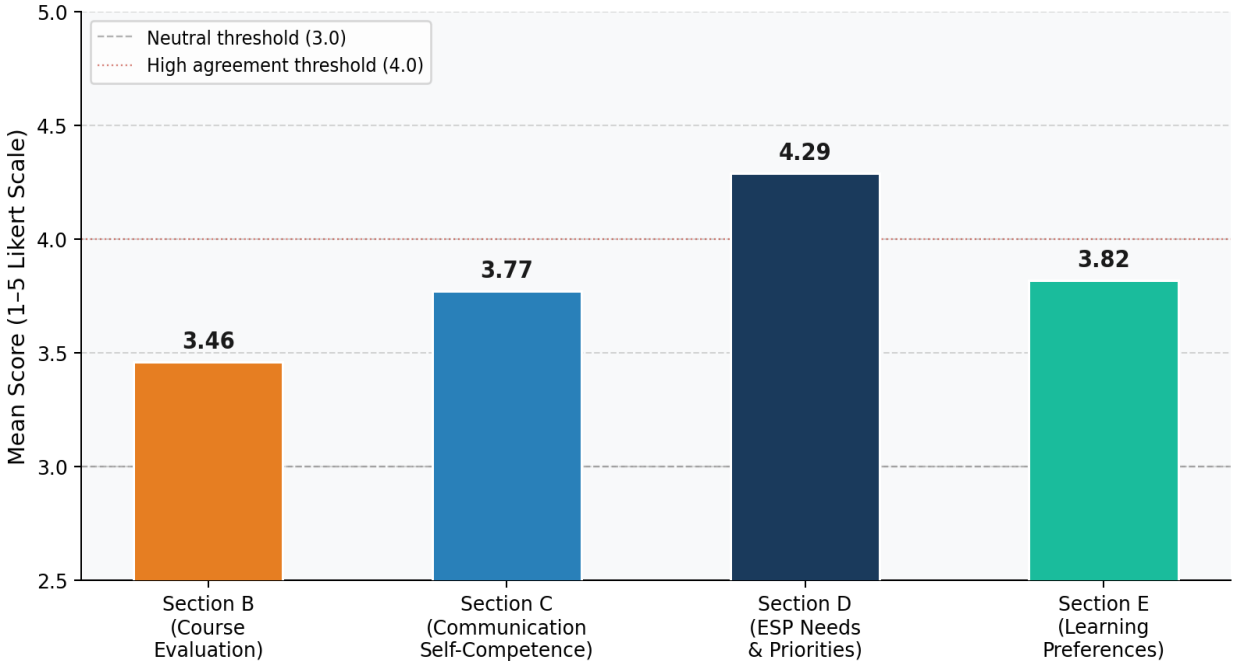

Figure 1. Section-Level Mean Scores Across the ESP Needs Analysis Survey (N = 309)

4.2 Section B: Lacks — Evaluation of Prior Functional English Instruction

Table 2 and Figure 2 show the descriptive statistics of Section B items that covered student's assessment of their courses in Functional English. The section composite mean of M = 3.46 (α =.893) indicates a moderate overall rating, and places the perceived sufficiency of the previous English instruction far below the threshold of high agreement of M = 4.0. The lowest rated of the whole study was B4: the effective use of the authentic clinical materials (charts, lab reports, and

case notes) (M = 3.21, SD = 1.19, 46.6% agreement), which means that the exposure to the texts of the genre specific and professionally authentic nature was the most marked deficiency of the previous instruction. B3 (addition of practical tasks: M = 3.42, 53.1) also was lower than the section mean. The two items together reveal genuine materials and useful clinical activities as the main areas of teaching incompetence, a trend that is also reflected in the identical lacks identified in Iranian medical ESP courses by Khalili and Tahririan (2020) and the moderate course evaluation scores (means 3.54–3.75) among Pakistani law undergraduates by Khan et al. (2024).

Table 2: *Section B: Descriptive Statistics for Evaluation of Functional English Instruction (N = 309)*

Item	Statement	M	SD	Agree+ (%)
B1	The course improved my understanding of English used in healthcare settings.	3.60	1.06	62.1
B2	The vocabulary taught in the course matched my academic/clinical field.	3.50	1.10	58.3
B3	The course included practical tasks (report writing, patient communication).	3.42	1.17	53.1
B4	Authentic materials (charts, lab reports, case notes) were used effectively.	3.21	1.19	46.6
B5	The assessments (tests/quizzes) were aligned with course objectives.	3.59	1.07	60.8
	Section Mean / Cronbach's α = .893	**3.46**	—	**56.2**

Note. M = Mean score (5-point Likert, higher = stronger agreement). SD = Standard deviation. Agree+ = percentage of Agree and Strongly Agree responses. α = Cronbach's alpha for the section.

Figure 2. Item-Level Means: Section B - Functional English Course Evaluation

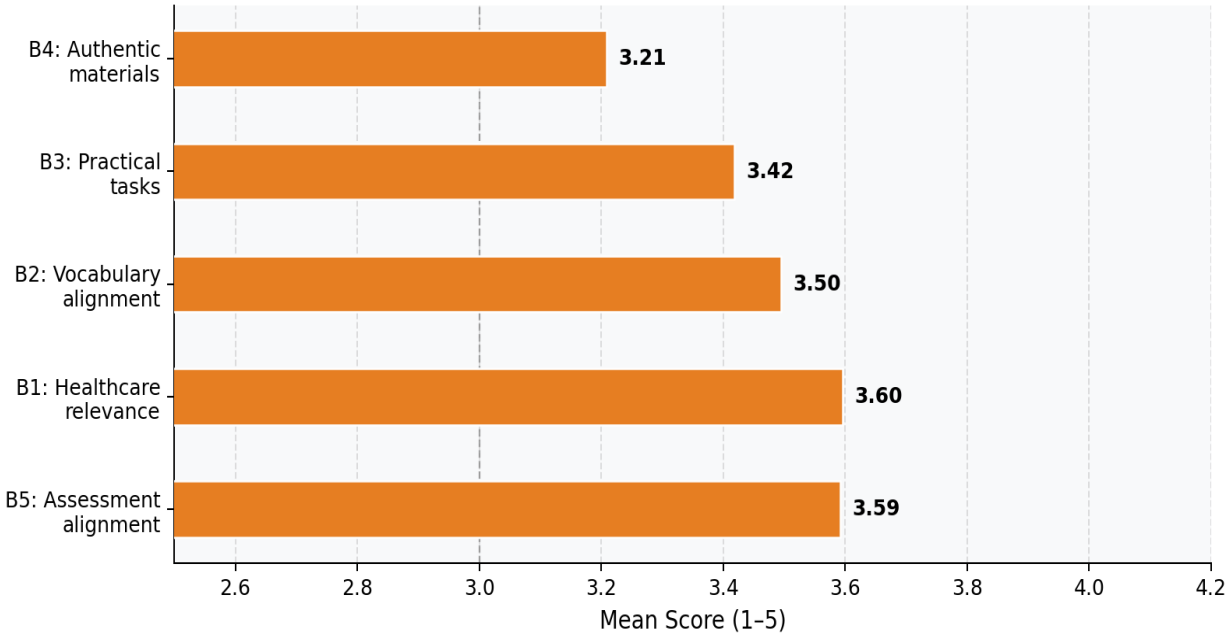

Figure 2. Item-Level Mean Scores: Section B – Functional English Course Evaluation

4.3 Section C: Lacks — Professional Communication Self-Competence

Section C results in table 3 and figure 3 show self-reported results of professional communication competence among the students. The mean of M = 3.77 (0.921) in the section means that there is generally sufficient self-efficacy. Nevertheless, there is a within-section gradient between C1 (clinical writing: M = 3.64, 61.5% agreement) and C3 (patient explanation in simple English: M = 3.82, 70.9% agreement): students are most confident in interactive verbal communication with

patients and in polite interaction with patients (C8: M = 3.82), whereas clinical writing is the least This profile is consistent with the results by Al Amin et al. (2024), who determined professional writing to be the first competence-related issue among healthcare students in Bangladesh, and by Arroyyani et al. (2022), who found greater reading confidence compared with self-efficacy in writing among Indonesian students of public health. The high alpha coefficient (α =.921) affirms good scale reliability of the measure of communication competence

Table 3: *Section C: Descriptive Statistics for Professional Communication Self-Competence (N = 309)*

Item	Statement	M	SD	Agree+ (%)
C1	I can write clear and accurate clinical documents (reports, case notes, patient records).	3.64	0.95	61.5
C2	I can use medical terminology correctly in written and spoken communication.	3.74	0.98	65.0
C3	I can explain procedures, instructions, or test results to patients in simple English.	3.82	0.88	70.9
C4	I can communicate effectively with doctors, nurses, teachers, and classmates.	3.78	0.92	67.3
C5	I can summarise medical or scientific information clearly for academic or clinical use.	3.78	0.95	68.6
C6	I can participate confidently in presentations, discussions, or clinical conversations.	3.80	0.96	69.3
C7	I can check and adjust my communication (grammar, pronunciation, clarity, tone).	3.77	0.87	68.6
C8	I can ask for clarification and respond politely in professional or clinical settings.	3.82	0.86	68.6
	Section Mean / Cronbach's α = .921	**3.77**	—	**67.5**

Note. M = Mean score. SD = Standard deviation. Agree+ = percentage of Agree and Strongly Agree responses. α = Cronbach's alpha.

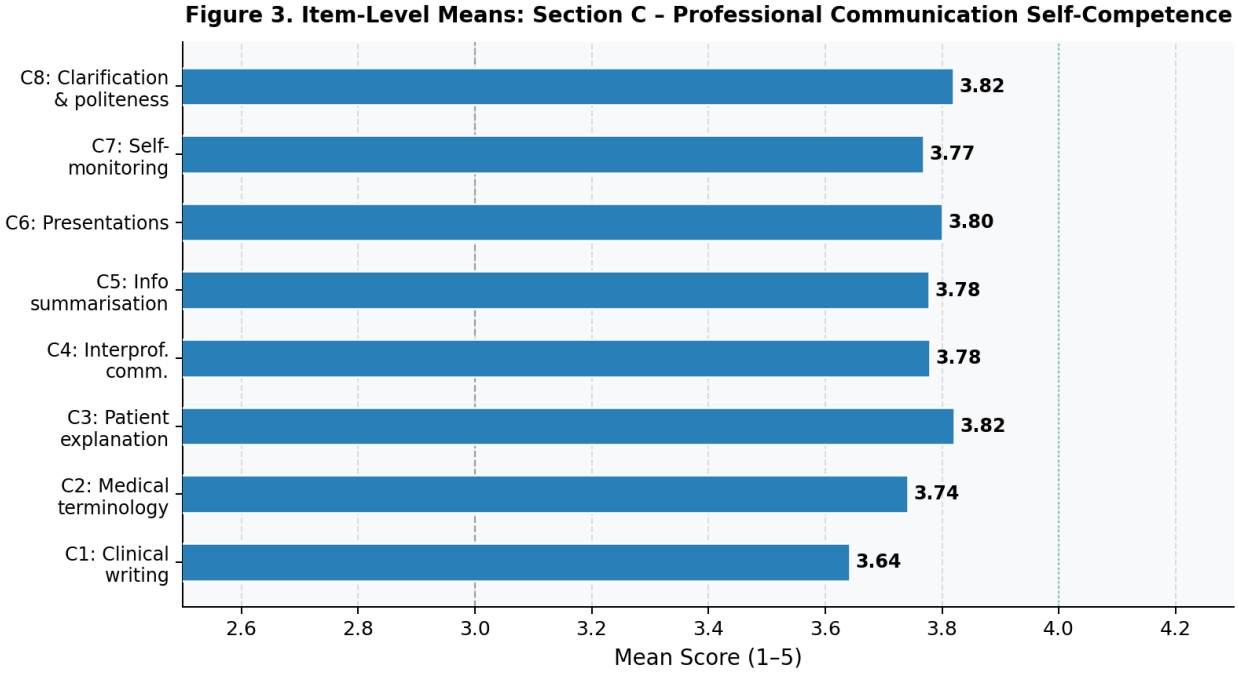

Figure 3. Item-Level Mean Scores: Section C – Professional Communication Self-Competence

4.4 Section D: Necessities and Wants — ESP Course Needs and Priorities

The most significant study results are provided in Table 4, Figures 4 and 5. Section D had the highest mean scores of any section (composite M = 4.29, 911), and all seven items had greater mean scores than M = 4.0, with the percent agreement ranging between 81.2% (D7: digital/multimedia tools) to 90.0% (D2: patient-health professional communication training). The most highly rated one was D5 the need to have real clinical scenarios and authentic materials (M = 4.38, SD = 0.74, 89.6% agreement) meaning that the contextual authenticity is the necessity of the first rank. The second and the third ones were D2 (patient communication training: M = 4.35, 90.0) and D1 (medical document writing practice: M = 4.31, 86.1) respectively. These findings represent the needs construct offered by Hutchinson and Waters (1987): they determine the specific professional speaking skills that students of allied health at GCUF need to acquire.

Figure 4 uses the stacked response distribution to visualize the near-complete lack of disagreement on the items in Section D: the proportion of disagree and strongly disagree responses together is less than 5% on all items. This demand consistency in the whole sample is a statistically significant result--it implies that ESP course development at GCUF can go forward with high statistical confidence that the noted necessities and wants are common to the student group as a whole.

Table 4: *Section D: Descriptive Statistics for ESP Course Needs and Priorities (N = 309)*

Item	Statement	M	SD	Agree+ (%)
D1	I want more practice in writing medical documents (reports, case notes, summaries).	4.31	0.78	86.1
D2	I want training in patient–health professional communication.	4.35	0.70	90.0
D3	I want more specialised vocabulary related to my field.	4.30	0.77	86.1
D4	I prefer task-based and interactive learning activities.	4.27	0.77	86.4
D5	I want real clinical scenarios and authentic materials to be used.	4.38	0.74	89.6
D6	Improving my English communication skills is a high personal priority.	4.27	0.79	85.4
D7	I prefer digital or multimedia tools (videos, apps, simulations) for learning.	4.18	0.86	81.2
	Section Mean / Cronbach's α = .911	**4.29**	—	**86.4**

Note. M = Mean score. SD = Standard deviation. Agree+ = percentage of Agree and Strongly Agree responses. α = Cronbach's alpha.

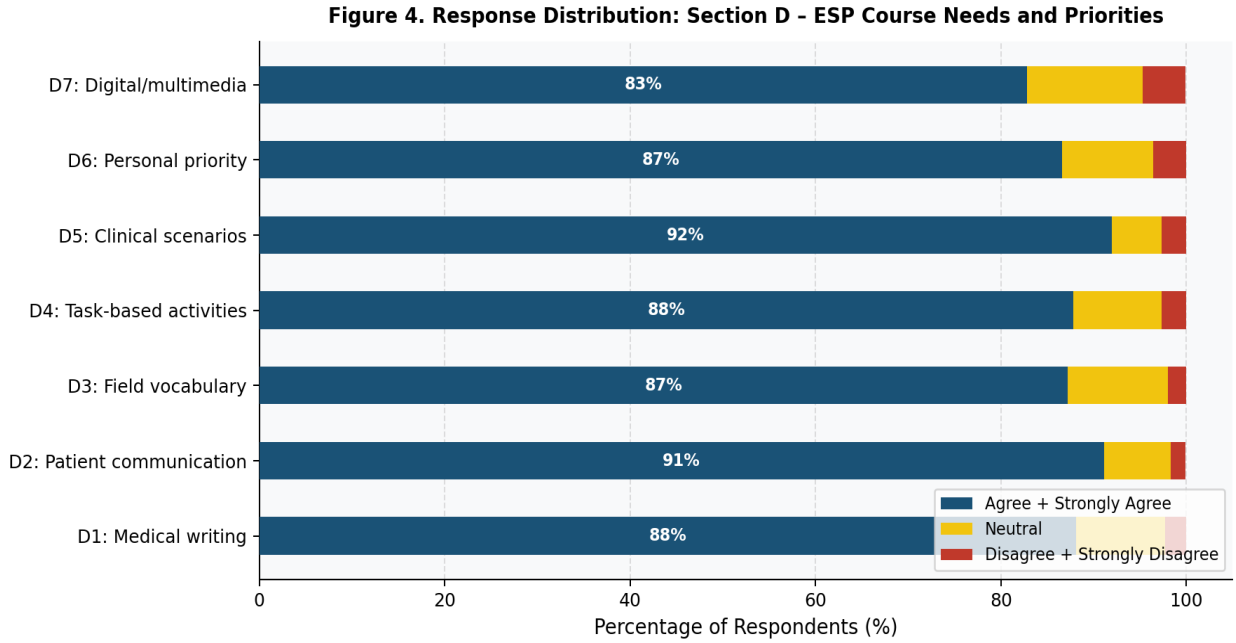

Figure 4. Response Distribution (%) for Section D Items — ESP Course Needs and Priorities

4.5 D8 Priority Checklist: Ranked ESP Skill Necessities

Table 5 and Figure 5 provide the ranked frequency distribution of the D8 priority checklist, where students were asked to choose no more than three areas of skills that are the most important in an ESP course. The most important one was patient communication and counselling, which was chosen by 200 students (64.7%), and then clinical documentation (46.3%), medical vocabulary and reading comprehension (37.2%), interprofessional communication (36.6%), and the pronunciation and spoken fluency (30.1%). The ranking of the checklist adds value and detail to the results of the Likert scale by giving a direct priority ranking that can directly inform ESP syllabus sequencing and content weighting in GCUF.

Table 5: *D8 Priority Checklist: Ranked ESP Skill Priorities (N = 309; Up to 3 Selections Per Respondent)*

Rank	ESP Skill Priority	n	% of N
1	Patient communication & counselling	200	64.7
2	Clinical documentation (reports, case notes)	143	46.3
3	Medical vocabulary & reading comprehension	115	37.2
4	Interprofessional communication (doctors, nurses)	113	36.6
5	Pronunciation & spoken fluency	93	30.1
6	Presentations & academic speaking	76	24.6
7	Digital communication (emails, telehealth)	54	17.5

Note. Percentages are based on total N = 309. Multiple selections permitted; total exceeds 100%.

Figure 5. Top ESP Skill Priorities: D8 Priority Checklist (Up to 3 Selections Per Student)

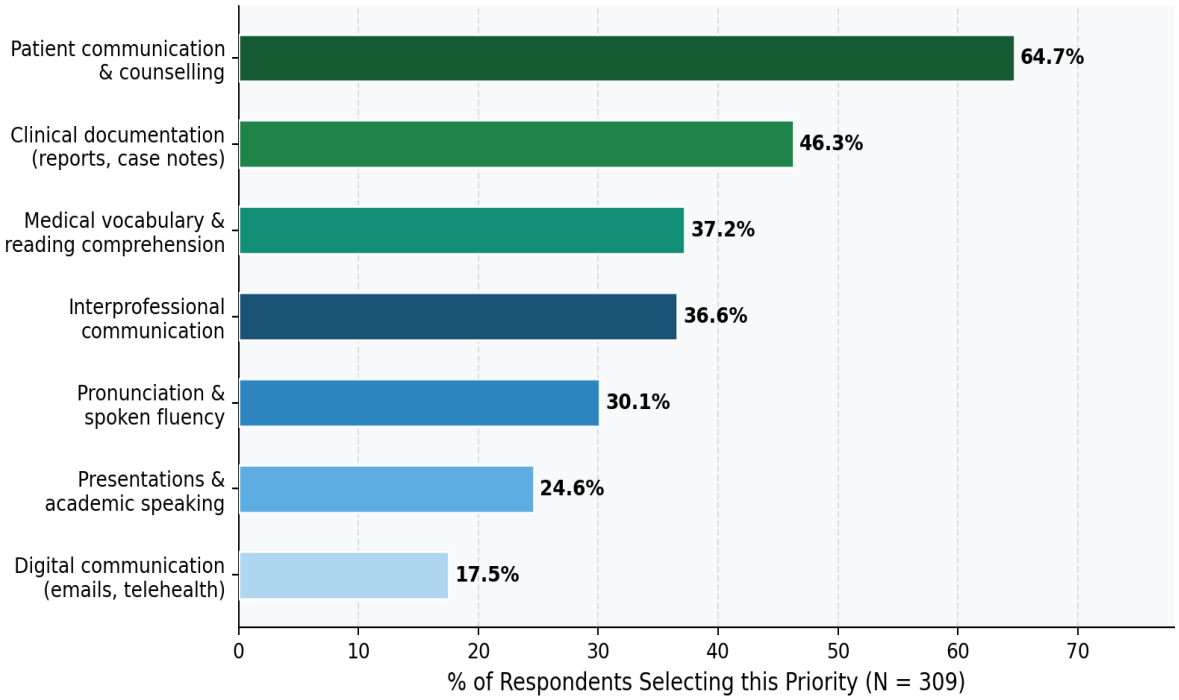

Figure 5. D8 Priority Checklist: Percentage of Students Selecting Each ESP Skill Priority

4.6 Section E: Wants — Language Exposure and Learning Preferences

Table 6 shows Section E results that reflect exposure and modality preferences of students in terms of language exposure habits. The section composite mean of M = 3.82 (α=.774) shows that there is positive overall orientation towards active learning. Group work and peer interaction (E3: M = 3.91, SD = 0.91, 73.5% agreement) had the highest level of support, as did role-plays and simulations (E2: M = 3.90, SD = 0.84, 72.8% agreement). There was a lower rating of self-directed engagement with English-language medical media (E1: M = 3.66, 57.9% agreement), which indicates that autonomous consumption of English media is not as well-established in the learning practices of students compared to collaborative consumption with structures. This preference profile compares directly to the communicative and task-based principles of pedagogy of CLT (Savignon, 2002) and TBLT (Nunan, 2004) and is consistent with the preferences of Al Amin et al. (2024) and Ibrahim Mohamed and Al Jadaan (2024).

Table 6: *Section E: Descriptive Statistics for Language Exposure and Learning Preferences (N = 309)*

Item	Statement	M	SD	Agree+ (%)
E1	I regularly watch or read medical content in English (articles, videos).	3.66	0.98	57.9
E2	Role-plays and simulations help me learn English more effectively.	3.90	0.84	72.8
E3	Group work and peer interaction support my professional English development.	3.91	0.91	73.5
	Section Mean / Cronbach's α = .774	**3.82**	—	**68.1**

Note. M = Mean score. SD = Standard deviation. Agree+ = percentage of Agree and Strongly Agree responses. α = Cronbach's alpha.

4.7 Instrument Reliability

Table 7 and Figure 8 summarize the alpha reliability coefficients of Cronbach in all sections. Three sections achieved excellent reliability (Sections C: α = .921; D: α = .911; B: α = .893). Section E produced a satisfactory coefficient (α =.774) as one should expect with a very small number of items (n = 3; Tavakol & Dennick, 2011). The excellent internal consistency is supported by the overall instrument reliability of α =.917 between all 23 Likert items. These values can directly be compared to the reliability coefficients provided by Khan et al. (2024) (overall α = .93) to the parallel ESP needs analysis instrument in the context of legal education in Pakistan, which also confirms the methodological approach of the current study.

Table 7: *Reliability Analysis: Cronbach's Alpha Coefficients by Section*

Section	Items	α	Interpretation
B: Functional English Course Evaluation	5	.893	Good–Excellent
C: Professional Communication Self-Competence	8	.921	Excellent
D: ESP Course Needs & Priorities	7	.911	Excellent
E: Language Exposure & Learning Preferences	3	.774	Acceptable
Overall Instrument (All Sections)	**23**	**.917**	**Excellent**

Note. Reliability benchmarks: Excellent α ≥ .90; Good .80–.89; Acceptable .70–.79 (Tavakol & Dennick, 2011).

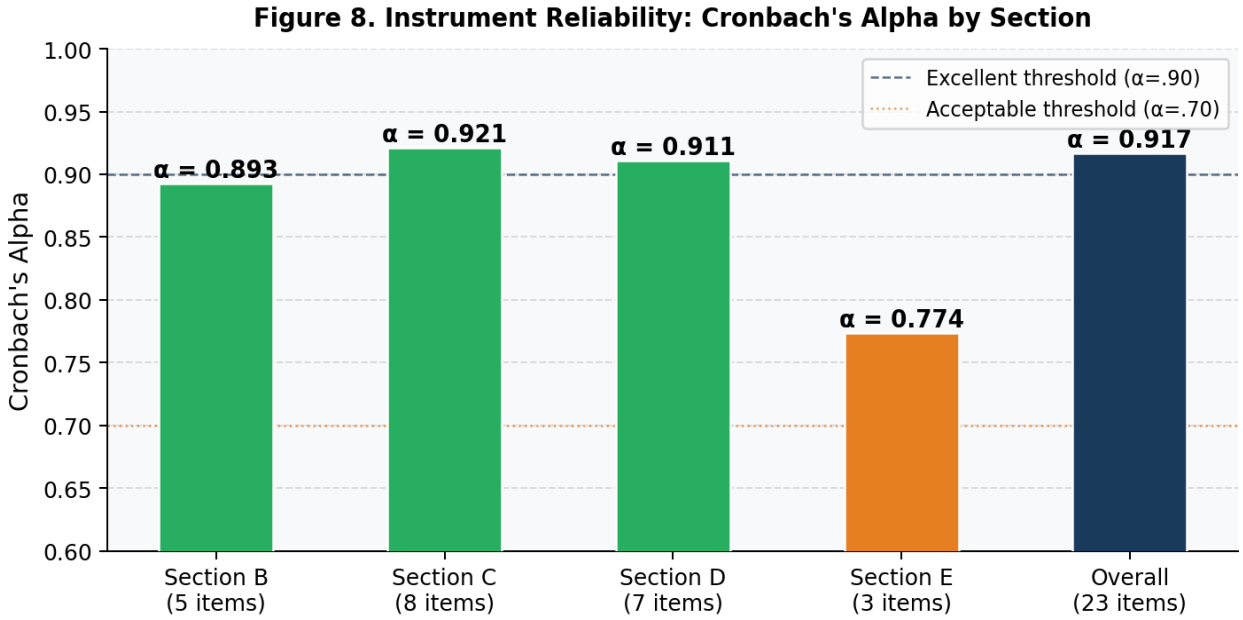

Figure 8. Instrument Reliability: Cronbach's Alpha Values by Section

4.8 Inferential Analysis I: Independent-Samples T-Tests (Gender)

Table 8 and Figure 6 provide the results of independent-samples t-test comparing the male (n = 65) and female (n = 244) students in section composites. Two statistically significant differences were found. The self-competence of male students in professional communication was rated much higher than female students (M = 3.95 vs. M = 3.72, t(307) = 2.18, p = 0.30) and the engagement of male students in Section E was much higher (M = 4.03 vs. M = 3.78, t(307) = 2 Importantly, there were no substantial gender differences in Section B (course evaluation: p =.404) or Section D (ESP needs: p =.661) which proves that the necessity of ESP teaching and the

lack of assessment of a poor prior instruction are gender-neutral. These results are consistent with the findings of Khan et al. (2024), who also stated that the gender homogeneity is observed in the majority of ESP needs variables among Pakistani law students. The large gender disparity in self-competence (Section C) is probably due to different calibration of self-efficacy, as opposed to actual difference in competence.

Table 8: *Independent-Samples T-Tests: Gender Comparison of Section Composite Means*

Section	Male M (SD)	Female M (SD)	t	df	p
B – Course Evaluation	3.37 (0.92)	3.48 (0.94)	-0.84	307	.404
C – Comm. Competence	3.95 (0.72)	3.72 (0.74)	**2.18***	307	**.030***
D – ESP Needs	4.26 (0.72)	4.30 (0.60)	-0.44	307	.661
E – Learning Preferences	4.03 (0.83)	3.78 (0.73)	**2.33***	307	**.020***

*Note. * p < .05. Degrees of freedom = 307 for all comparisons.*

Figure 6. Gender Comparison of Section Composite Means (* p < .05)

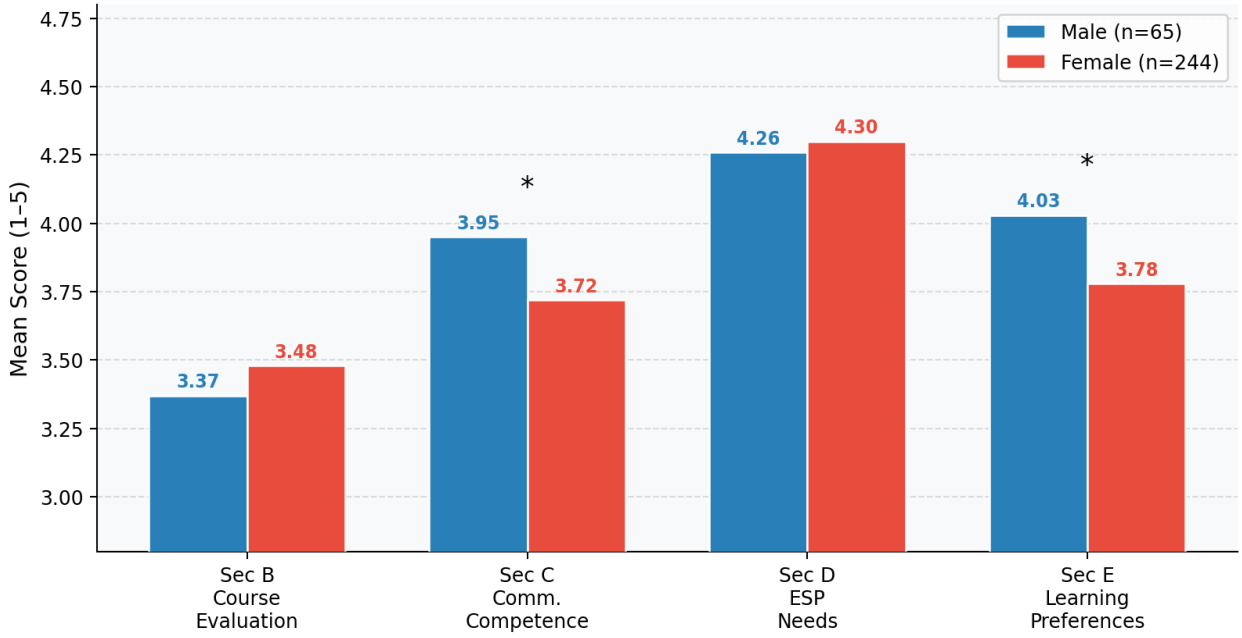

Figure 6. Gender Comparison of Section Composite Means (p < .05)*

4.9 Inferential Analysis II: One-Way ANOVA (Semester)

Table 9 and Figure 7 shows the results of one-way ANOVA of 3rd, 5th, and 7th semester students. There were no statistically significant differences in any section (all p >.10). The fact that the means of Section D remain relatively stable over semesters (3rd: M = 4.25; 5th: M = 4.31; 7th: M = 4.33) is especially impressive: the necessity to teach ESP does not decrease with the increase in the academic level of students it remains and, in fact, slightly increases. There is no indication that this trend is in line with the assumption that general teaching of the English language is sufficient to prepare students with the clinical communication requirements as they advance their programmes. It further confirms ESP is required not as a first year mediating intervention but as an ongoing part of allied health education across the degree pathway- a finding in line with Khalili and Tahririan (2023), who suggested that ESP should be systemically re-evaluated in terms of delivery time and content across health sciences programmes.

Table 9: *One-Way ANOVA: Semester Comparison of Section Composite Means*

Section	3rd Sem M(SD)	5th Sem M(SD)	7th Sem M(SD)	F	p
B – Course Eval.	3.41 (0.87)	3.31 (1.07)	3.49 (0.95)	0.54	.581
C – Comm. Competence	3.74 (0.75)	3.70 (0.78)	3.71 (0.76)	0.04	.959
D – ESP Needs	4.25 (0.62)	4.31 (0.76)	4.33 (0.64)	0.38	.688
E – Learning Pref.	3.69 (0.78)	3.78 (0.88)	3.90 (0.71)	1.96	.143

Note. Comparisons are between 3rd, 5th, and 7th semester students only (n = 256). ns = not significant (p > .05).

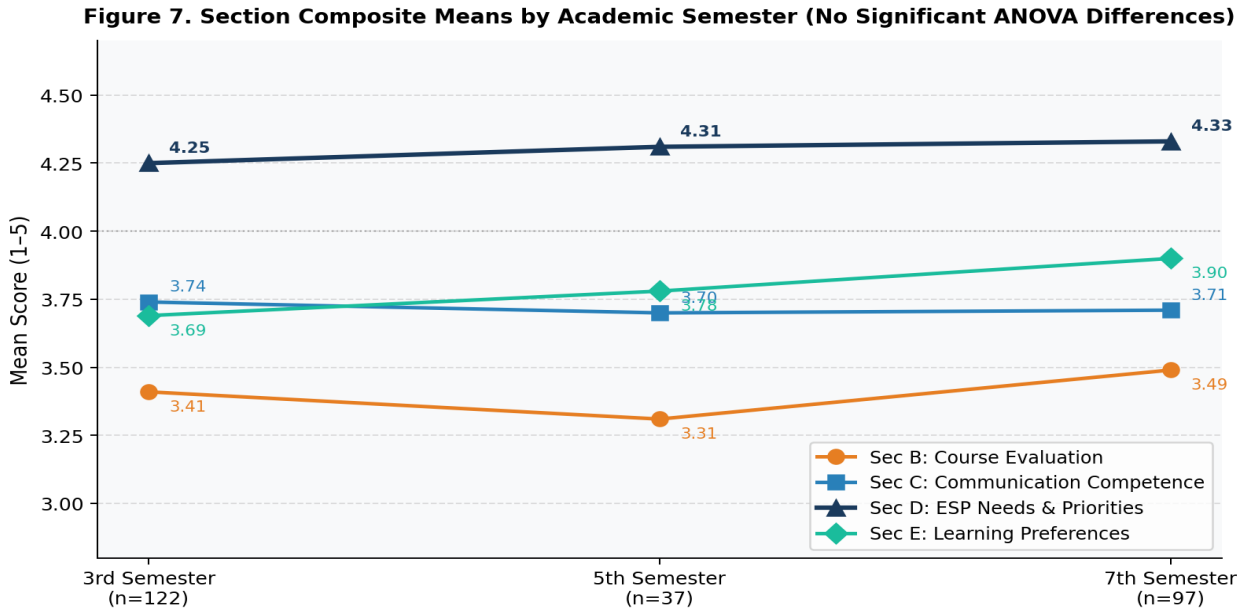

Figure 7. Section Composite Means by Academic Semester (All Differences Non-Significant)

5. Discussion

This section explains the findings of the study in terms of the Hutchinson and Waters (1987) necessities -lacks -wants framework, contextualizes them in the context of the existing international ESP needs analysis literature, and inferences about their implications on curriculum development at GCUF and allied health ESP research in general.

5.1 Necessities: What Allied Health Students Must Be Able to Do

Necessities information in this study is very clear in its directionality. Section D, which had a composite mean of M = 4.29 and none of the items below M = 4.18, provides the allied health student group at GCUF with a coherent and consistent statement of professional communicative requirements. Patient communication and counselling, i.e. the skills related to explaining the procedures, counselling patients and controlling the interaction with the patients in English, became the highest requirement that 64.7% of students in the D8 checklist chose as one of the top-three requirements and with which 90.0% of students agreed in the corresponding Likert item (D2). The other core requirements are clinical documentation (ranked second in D8: 46.3%) and field-specific medical vocabulary (ranked third: 37.2%).

These results directly build up and narrow the allied health needs analysis of Lopez and Razak (2025), who have determined that among Malaysian allied health novices, academic and professional communicative needs are present but implemented a qualitative design that is incapable of quantifying the relative importance of the various need categories. The data of the

priority weighted checklist of the present study offers exactly the quantitative prioritization that could not be produced by the methodology of Lopez and Razak (2025). The fact that patient communication has been identified as the most predominant requirement further appeals to Alharby (2005) who attributed English-language professional competence among Saudi health workers to patient interaction tasks in particular.

The fact that strong ESP necessity demand persists with semesters (ANOVA: all p >.10; D means increasing to 4.33 between 3rd and 7th semesters) creates a significant implication in curricular terms: necessity is not an undergraduate construct. Although the nature of the communicative tasks that students face in later semesters in their development into clinical placements seemingly increase instead of reducing the perceived disparity between existing English instruction and professional needs. This result has empirical backing to the argument by Stötzer and Farkas (2024) that English as a health sciences purpose should be delivered in a sustained and curriculum integrated manner as opposed to a front loaded general education.

5.2 Lacks: Where Current Instruction Falls Short

The average measure of the previous Functional English training (Section B: M = 3.46, 893 =.893) offers the empirical foundation of the definition of the deficiencies of allied health students at GCUF. The largest deficiency is recorded by B4: only 46.6% of the students said that they used authentic clinical material in their English classes, the genre-specific texts that make up the real reading and writing context of allied health practice. This result makes authentic materials the most impactful instructional deficiency that directly mirrors the findings of Khalili and Tahririan (2020) in their diagnosis of the Iranian medical ESP courses and the suggestions offered by Danial et al. (2023), who revealed that contextually relevant learning outcomes were more achieved when learners used authentic texts on health.

The B3 rating (practical task inclusion: M = 3.42, 53.1% agreement) sets up a complementary absence; the students have not received enough chances to practice the genre specific writing and communication tasks, report writing, patient communication exercises, case note production, which are the target situation requirements of allied health professional life. Collectively, B3 and B4 imply that current Functional English teaching at GCUF is still based on decontextualized language teaching as opposed to the situated professional communication practice.

The lack of picture is tempered by the self-competence data in Section C. The least rated competence item, C1 (clinical writing: M = 3.64), aligns exactly with the instructional gap that is found in B3 that lacks practice in clinical document production. Such agreement between two independent measurement tools (retrospective course assessment in Section B and prospective self-assessment in Section C) reinforces the validity of the finding of lack: clinical writing is not only under-practiced in instruction, but also at the same time under-developed as a competence. The trend is similar to the results reported by Al Amin et al. (2024) and Arroyyani et al. (2022), who both reported that written professional communication is the most enduring competence gap in teaching English as a subject in health sciences.

5.3 Wants: Learning Preferences and Pedagogical Implications

The desires of students in Section D and E are indicative of a complex internally consistent pedagogical orientation. The greatest recommendations in Section D are around authentic, contextualized, and practice-related tasks: clinical scenarios (D5: 89.6%), patient communication training (D2: 90.0%), and authentic materials (want expressed with both D5 and the D8 checklist). Section E supports this image with a robust support of collaborative and simulation-based learning: role-plays and simulations (E2: 72.8%) and group work (E3: 73.5%) were more popular than self-directed media engagement (E1: 57.9%).

This communicative and task-based pedagogical model, which is supported in the health sciences ESP literature, is theoretically aligned with this want profile. The dominance of role-plays and clinical simulations is an explicit implementation of communicative activities which CLT (Savignon, 2002) and TBLT (Nunan, 2004) pushes as the main means of language acquisition. The comparatively reduced support of self-directed media participation (E1) is indicative of the fact that the students perceive the development of English as a scaffolded, socially-mediated process that needs institutional support but not independent media use- something that supports the significance of ESP delivery within the classroom or through the course.

The desire to use digital and multimedia (D7: M = 4.18, 81.2) points to the fact that students are not averse to ESP instruction using technology. This result is consistent with the wider Pakistani context reported by Khan et al. (2024) who reported high levels of mobile learning readiness (means 3.683.85) in law undergraduates and a strong positive correlation between mobile learning readiness and English proficiency needs. Although the current research did not directly quantify mobile learning readiness, the approval of digital tools in Section D and the trend in Pakistani higher education towards technology acceptance in general indicates that the model of technology-enhanced ESP delivery would be positively received by the associated health learners at GCUF.

5.4 Gender, Semester, and the Universality of ESP Needs

The two significant inferences made through the inferential analyses include the distribution of ESP needs with respect to subgroups of students. First, the needs of ESP are sex-neutral (Section D t-test: p = .661), which supports the fact that the allied health ESP instruction demand is universal among the students of the cohort and is not specific to the needs of a specific demographic segment. Section C (self-competence: p = .030) and Section E (learning preferences: p =.020) have significant gender differences that need to be interpreted carefully. Male students indicated more self-competence and more engagement in learning, which could be due to different self-efficacy calibration, and not necessarily to actual competence differences, which is also reflected in the educational psychology literature and observed in the Pakistani higher education setting by Khan et al. (2024).

Second, ESP needs are semester-invariant (all ANOVA results p >.10) implying that the demand on specialized healthcare English instruction shows no decline with higher levels of student progression. The upward trend in Section D is marginal, indicating the difference between 3rd (M = 4.25) and 7th semester (M = 4.33) is upward instead of downward, and it can be interpreted that the greater the clinical exposure in later semesters, the more the awareness of English language gaps. This finding, in the view of curriculum planners at GCUF, should be used as an indication that ESP needs to exist not as a single early-semester course but rather as part of the academic programme.

6. Conclusion

This research has generated a theoretically based, and statistically sound quantitative needs analysis of the English language learning needs, gaps and desires of 309 allied health students at Government College University Faisalabad, Pakistan. Using the conceptual framework of Hutchinson and Waters (1987) in the tripartite framework, and a valid measurement tool (α=.917 overall), the research has produced action evidence on three constructs.

The needs analysis indicates patient communication and counselling (64.7% selection rate on D8; 90.0% Likert agreement on D2) and clinical documentation (46.3% selection on D8) to be the most important communicative competencies of allied health that students at GCUF should master. These needs are gender and semester cohort consistent and universal. Lacks analysis shows that current Functional English teaching is weak mainly in the areas of provision of

authentic clinical materials (M = 3.21, the lowest item mean in the study) and practical contextualized writing tasks (M = 3.42) - a structural curriculum gap that makes clinical writing the least well-developed rated self-competency (M = 3.64). The analysis of wants reveals that students would like to get clinical scenarios in the real world, task activities, role-plays, simulations, and peer learning with the peers, which are directly aligned with the principles of CLT and TBLT and offers an explicit pedagogical requirement in designing an ESP course at GCUF.
The contributions of the study are tri-fold. In theory, it shows that the Hutchinson and Waters (1987) framework can still be used and remain a generative power as a structuring tool of health sciences ESP needs research in the non-Western institutional contexts. It supplies empirically the initial quantitative data of need analysis of allied health students in a large Pakistani government-sector institution, which is a gap highlighted by Lopez and Razak (2025) and Stötzer and Farkas (2024). Methodologically, it provides a stable and purpose-specific questionnaire tool (overall α = .917) that can be modified and implemented in other allied health institutions in Pakistan and similar settings of low-to-middle-income countries.
Future studies need to confirm these quantitative results with focus group interviews with students and clinical supervisors, follow up studies with longitudinal designs to determine whether ESP instruction can actually lead to quantifiable increases in professional communication competence, and examine the possibility of technology-enhanced or mobile-assisted ESP delivery to allied health students in the Pakistani higher education setting.

References

Al Amin, N., Shikder, M. R. I., & Musa, A. Y. (2024). English for medical purposes: An ESP needs analysis of medical students and healthcare professionals. SSRN Working Paper No. 5431251.
Alharby, M. (2005). ESP target situation needs analysis: The English language communicative needs as perceived by health professionals in the Riyadh area [Doctoral dissertation, University of Georgia].
Arroyyani, R., Widiyati, D. N., & Maryani, M. (2022). A need analysis of ESP for public health students. Esteem Journal of English Education Study Programme, 5(2), 161–171.
Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). Sage.
Danial, H., Bay, I. W., & Sambouw, E. L. (2023). ESP need analysis for public health course material: A learner-centered approach.
Farea, W. A., & Singh, M. K. M. (2024). A target English needs analysis on ESP course: Exploring medical students' perceptions of necessities at a Yemeni university. Training, Language and Culture, 8(1), 20–37.
Hekmati, N., Davoudi, M., Zareian, G., & Elyasi, M. (2020). English for medical purposes: An investigation into medical students' English language needs. Iranian Journal of Applied Language Studies, 12(1), 151–176.
Hutchinson, T., & Waters, A. (1987). English for specific purposes: A learning-centred approach. Cambridge University Press.
Ibrahim Mohamed, O., & Al Jadaan, D. O. (2024). English for specific purposes (ESP) needs analysis for health sciences students: A cross-sectional study at a university in the UAE.
Khalid, H. (2016). Legal English needs analysis at undergraduate level in Pakistan. Pakistan Journal of Education, 33(1), 75–91.
Khalili, S., & Tahririan, M. H. (2020). Deciphering challenges of teaching English for specific purposes to medical students: Needs, lacks, students' preferences, and efficacy of the courses.
Khalili, S., & Tahririan, M. H. (2023). English for medical purposes in Iran: Needs analysis, challenges, and prospects. Iranian Journal of English for Academic Purposes, 12(2), 49–68.

Khan, M. A., Shah, S. K., & Yasmeen, R. (2024). A Needs Analysis For Developing And Evaluating A Culturally Relevant Mobile-Assisted English Language Teaching (MAELT) Module To Enhance Legal English Proficiency And Critical Thinking Skills In Pakistani Law Undergraduates. *Migration Letters*, *21*(S3), 1915-1940.

Lopez, D. M., & Razak, R. A. (2025). Investigating the needs to develop English for specific purpose pedagogical strategies for allied health novice. JuKu: Jurnal Kurikulum & Pengajaran Asia Pasifik, 13(1), 1–6.

Nunan, D. (2004). Task-based language teaching. Cambridge University Press.

Savignon, S. J. (2002). Interpreting communicative language teaching: Contexts and concerns in teacher education. Yale University Press.

Stötzer, A., & Farkas, A. (2024). English for health sciences purposes: Conceptual update for the field.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education, 2, 53–55.