

Needs Analysis of English for Specific Purposes for Health Sciences Students: A Cross-Sectional Study at a University in the U.A.E.

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Abstract—This paper presents findings from a needs analysis survey to determine the extent to which the current English for Specific Purposes (ESP) course for healthcare students meets the needs of this population. A structured questionnaire was shared with the students (N=180) from different healthcare departments to examine the preferability of different aspects. Many participants gave great value to ESP courses whose importance was mainly to learn medical or pharmaceutical terminology and communicative skills. Yet, the participants preferred the conversational content over the grammatical one. Most participants perceived the four English skills as important. The overall conclusion shows that the main objective of an ESP course is language fluency to be able to communicate and achieve any requirement in their career. Moreover, the study shows that the conventional methods of assessment are less preferred and that students prefer assessments where teamwork is involved. They also preferred to receive the learning materials via online or technological methods, and they preferred class activities and audio/video aids. Yet, a great number did not prefer using an English Language Laboratory. Finally, most of them agreed that being in a mostly English-speaking community at the university is convenient to enhance their communication skills in English.

Index Terms—English for specific purposes (ESP), English for Medical Purposes, English language teaching (ELT), needs analysis

I. INTRODUCTION

The workplace is becoming increasingly globalized and the need for English language skills is more important than ever. There is an increasing requirement for English language skills in any profession. In many industries, such as hospitality, healthcare, business...etc., English has become the common language. This means that the workers must be able to communicate efficiently in English to be able to perform their duties. English for specific purposes (ESP) can assist learners in developing the specific language abilities required for success in the field they have selected. It is a set of teaching methodologies and resources created for non-native speakers who use English to communicate in a certain domain. It is the language used by employees in public institutions and professions while dealing with the demands of their consumers, clients, or users. ESP studies how language is used in a range of different contexts, therefore, it is considered a subset of applied linguistics.

ESP courses give students the tools and methods they need to communicate effectively in English. Their main objective is to develop culturally genuine communication skills that will allow the learners to succeed in a variety of careers and professions in the international environment or English-speaking countries. ESP courses are also intended to satisfy the needs of non-native English speakers enrolled in credit-bearing courses at a college or university. The goal of ESP classes is for participants to develop fundamental conversational skills in English while focusing on a specific aspect of their language interest or academic goal.

There are many benefits to teaching ESP including the development of students' communicative competence and content knowledge. Yet, despite these advantages, there are some challenges associated with teaching ESP; these include meeting the needs of all learners. However, with careful planning and a focus on student-centered learning, these challenges can be overcome. ESP can help employees gain the language skills they need to be successful in their careers as ESP courses are designed to meet the needs of the learners based on their field of work. For example, a course for healthcare workers might focus on medical terminology and jargon, while a course for hotel staff might focus on customer service vocabulary, and another business course might focus on teaching business etiquette and email writing conventions.

ESP classes can help students improve their communicative competence in English which can lead to increased confidence and effectiveness in the workplace. In addition, ESP classes can help students learn content that is relevant to their field of work. For example, a course for hotel staff might include lessons on how to deal with difficult customers or handle complaints. ESP students most probably originate from a variety of backgrounds and have varying levels of English proficiency. Some of them may be native English speakers, while others may be non-native speakers, who need to improve their language for academic or professional reasons. ESP students typically have specific goals and needs when it comes to learning English. They may, for example, need to acquire vocabulary and grammar relating to their field of study or employment, or they may need to learn how to communicate effectively in English in order to participate in classes or give presentations.

The objectives of ESP courses vary depending on the needs of the students however some common objectives include developing communicative competence in English increasing vocabulary knowledge and improving grammatical accuracy. In addition, ESP courses often aim to prepare students for specific situations they are likely to encounter in their academic or professional lives. One of the most successful approaches to teaching English for specific purposes is to focus on communicative competence. This implies that students must be able to speak effectively in different settings to acquire communicative competence. Students must participate in a variety of real communication assignments and activities. An additional effective method to teach ESP is through (CLIL) which is “Content and Language-Integrated Learning”. This is a teaching approach where students learn both academic content and a foreign language at the same time. This approach is effective in helping students develop both their linguistic and academic skills.

Moreover, the internet is a wealthy means of resources that can be used to teach English for specific purposes. These include online dictionaries, translation websites, grammar guides, websites with practice exercises, and chatbots that can help in constructing a tailored curriculum. Many of these internet resources are free, making them accessible to a wide range of teachers and learners. Furthermore, various online courses may be utilized to teach ESP. These courses frequently include videos and interactive activities that engage students and assist them in developing the required skills.

Mobile applications can also be used to teach English for specific purposes. There are many applications available that provide practice exercises for specific skills such as grammar or general vocabulary development, medical or pharmaceutical vocabulary development, business vocabulary development ...etc. In addition, many applications allow users to track their progress and set goals motivating learners as they work to improve their general English or professional English language skills.

There are several challenges when teaching English for specific purposes; one of them is finding the appropriate materials. When selecting resources, various factors must be considered, including the student's level, the type of the course, and the course's aims. Another problem is ensuring that the curriculum is relevant to the requirements of the learners. This may be challenging, especially if the students come from diverse backgrounds. Another challenge of teaching English for specific purposes is meeting the needs of all the learners. This can be challenging because each learner has unique requirements. Some learners may want more assistance with grammar, while others may require assistance with pronunciation, listening, and spelling. It is critical to strike a balance so that all students may study and enhance their English abilities.

From the above, it is clear that teaching ESP courses and preparing curricula and content is a challenging task, therefore, it is mandatory to use a needs analysis as part of this task to be able to achieve satisfactory results from the courses. But what is a needs analysis and its purpose and how to conduct it for ESP courses?

A needs analysis is performed to identify training and development needs and difficulties or areas for improvement in establishing programs and assessing their efficacy. The needs analysis results can be used to improve performance within a company or an organization and determine whether current methods are adequate or if changes are required. To create an ESP program that meets the needs of the students, a needs analysis must be conducted to determine the gap between the current situation and the desired situation and identify what needs to be improved or changed. “The concept of Needs analysis has been different over the decades. In the initial stages of ESP (the 1960s and early 1970s), needs analysis consisted of assessing the communicative needs of the learners and the techniques for achieving specific teaching objectives. Nowadays, the tasks of needs analysis are much more complex: it aims at collecting information about the learners and at defining the target situation and environment of studying ESP” (Otilia, 2012, p. 54).

The best time to conduct a needs analysis depends on the specific purpose for which it is being done. For instance, if the goal is to identify training and development needs within an institution, it might make sense to conduct the needs analysis at regular intervals, such as once per year. On the other hand, if the purpose is to evaluate the effectiveness of existing methods, it may be more suitable to analyze needs after any significant changes have been made, like for example, after introducing a new training program. It is ultimately up to those who will be using the needs analysis data to decide when it should be carried out. Although it might seem like an easy operation, it is necessary to spend some time considering the goals of the needs analysis. Is it operated to specify training requirements, create a new curriculum, or assess an ongoing program? After establishing the goals of the needs analysis, the participants in the process are decided upon.

Choosing the participants in the process is the second stage in conducting a needs analysis. Depending on the requirements, analysis objective, and the particular situation in which it will be done, several persons could be engaged.

Students, instructors, administrators, staff members, or other stakeholders may take part. However, it is crucial that people who will make use of the needs analysis findings participate in its design and implementation. This makes it easier to guarantee that the information gathered is pertinent and helpful and that any findings and suggestions are doable and practical. It can therefore involve both people who will be giving information (such as students) and those who will make use of the findings of the needs analysis such as managers, teachers, or developers. To get a comprehensive understanding of the situation, it is better to involve all stakeholders.

Data collection is the third phase in the needs analysis. Data may be gathered in a variety of ways, but the popular methods are surveys, interviews, focus groups, and observations. It is crucial to pick a strategy that works well for the participants and the intended goal. For instance, surveys may be more suited than interviews if your goal is to identify training requirements because they can reach more individuals in less time. After collecting the data, it should be analyzed to find patterns and trends. The findings of the needs analysis can be used to draw conclusions and suggestions. Finding themes in interview transcripts or sifting through survey results are also examples of this phase. Making sense of all the data you have obtained and starting to seek patterns or trends are the objectives here.

After analyzing your data, you should develop conclusions and recommendations based on your findings. This may include identifying specific training needs or developing goals and objectives for a new program. Once you have developed your conclusions and recommendations you can share them with stakeholders and begin planning how to implement them.

The first step in using the results of a needs analysis is to set clear goals and objectives to help guide the development of the curriculum or training program these should be specific, measurable, achievable, relevant, and time-bound. For example, if the needs analysis indicates that employees need help with writing emails the goal could be something like within three months of completing the training program all employees will be able to write an email that is clear concise, and free of grammatical errors.

Once you have set your goals and objectives, you can begin developing a curriculum or training program to meet them this step will involve designing activities materials, and assessments that are aligned with the goals and objectives it is important to keep in mind that the needs of your participants may change over time so it is important to build in some flexibility into your curriculum or training program. After developing your curriculum or training program, it is time to implement it. This step will involve putting all of your plans into action and delivering the program to your participants. It is important to make sure that you are delivering the material in an engaging and effective way.

It is critical to assess the outcomes following the implementation of your program to determine whether it was effective in achieving its intended goals and objectives. This evaluation can be performed in several methods, but it must integrate the assessment of participants' learning as well as their feedback. After developing the ESP program, it should be employed with careful planning and monitoring. After the program is completed, it is vital to evaluate its efficiency to be able to make improvements for future programs.

This paper analyzes the concept of need analysis and attempts to give a set of recommendations to ensure that students achieve success in their language learning journey. It is based on the results based on responses to a questionnaire. The purpose of this study is to have a better understanding of the needs and requirements of health sciences students of a university in the UAE, who are from different cultural and linguistic backgrounds, and who are learning English as a second/foreign language. These learners are also required to analyze their perception of what they see as their needs to achieve success in learning English and professional English. In addition, they need to reflect upon the factors that might be hindering them from achieving success in their coursework. Moreover, from the results, ESP courses can be developed by taking into consideration what the students feel is important and what they feel is not important or required as ESP "is a very important genre of English that requires periodical development that is occurring in any of the potential fields. Moreover, constant alteration of the curriculum in every field is crucial and mandatory" (Ibrahim et al., 2022, p. 35). As such, the research questions are as follows:

1. What are the aspects of language that need improvement from the perception of health sciences students?
2. What are the students' perceptions of their needs in an ESP course that they think will be useful in their future professional careers?
3. What are the suitable components that need to be implemented based on the results of the study?
4. What is the students' perception of the effective teaching pedagogies and assessment methods of ESP?
5. What is the preferred language skill that is prioritized among the students in their ESP course?

II. LITERATURE REVIEW

Many studies have discussed ESP courses whether it is content, teaching methods as well as needs analysis. For example, Demiray (2016) conducted a study to examine the needs analysis of Turkish students of the School of Economics and Administrative Sciences, Arts and Sciences and Engineering. She used a series of qualitative (interviews with students) and quantitative (questionnaires) instruments to analyze. She used questionnaires and interviews for undergraduate, and intermediate-level preparatory class students (N=75) to find out the needs required for effective professional skills of participants and analyze the existing instructors' content and their pedagogical knowledge. Descriptive statistics have been provided in the findings and results. The results of the study showed that

the majority of the participants expressed that preparatory class is necessary for them but except for writing, grammar, and vocabulary teaching, instructors should give more importance to listening, speaking, and reading skills.

Another study investigated the communicative needs of doctors at academic and professional levels in survey-based research. The data was collected, analyzed, and interpreted quantitatively by administering questionnaires among medical students and doctors. The findings revealed that there is a huge gap between the acquired competencies of doctors with their desired level of English proficiency skills. The majority of the respondents stressed the need to introduce English language courses and workshops for medical students and doctors respectively, so that they may effectively fulfill their communicative needs (Lodhi et al., 2018).

Channa et al. (2013) conducted a study to investigate the needs of engineering students to use English and to examine the problems of these students in using English in their academic and professional studies. Another purpose was to explore the students' needs regarding the content and methodology of engineering students to use English at a Pakistani university. This research theoretically tends to develop ESP courses regarding different engineering fields to be successful. It also discusses the important principles related to engineering learners' needs within teaching-learning methods that include curriculum development, implementation, and evaluation. ESP courses are underway to be developed if the learners' needs are to be fulfilled. This research offers different ways to carry out more research in this genre.

Khalil (2020) did not discuss the students' needs but her study was teacher-oriented as she discussed the teaching methodology of ESP as well as General English which was an attempt to share experienced English Teachers' methodology for teaching General English (GE) and ESP to Saudi EFL learners. The paper discusses the conventional methods for teaching GE and ESP. It also discusses the teachers' perceptions of these effective teaching pedagogies and the practical measures to improve students' efficiency in learning English. The sample of the study was $n = 63$ English teachers randomly selected at different universities in Saudi Arabia. For collecting the quantitative data, 63 native and non-native experienced English teachers were requested to fill in a semi-structured questionnaire. The results show that 73% of English language teachers prefer to use Communicative Language Teaching (CLT) along with other teaching methods. The findings shed light on some highly useful teaching methods that have proved successful in GE and ESP classes.

Chovankova (2014) conducted a study on needs analysis as one of the most important sources of inspiration in syllabus design. First, needs analysis is situated within the methodology of ESP. Then, the rationale for a needs analysis survey among pre-service students in current legal English courses is presented and, finally, the findings are interpreted with respect to the actual target situations that students are likely to encounter after graduation. The article concludes by pointing out that although pre-service students may have vague ideas about the use of English in their future jobs, course instructors should consider their needs and wants because they are crucial for increasing the students' motivation. Instructors and course designers should, however, obtain information from professionals and graduates as well because that will enable them to address the actual target situations most effectively.

Another evaluation of the ESP program was conducted at a language center established in a government university in the Republic of Cyprus. The purpose of the project was firstly to determine whether the courses, which were designed and implemented based on a combination of theoretical considerations, methods, and approaches are relevant to the needs and interests of the students. The evaluation process was carried out to diagnose possible weaknesses of the courses so that the courses could be further developed and improved. The most important conclusion highlighted by the survey is that course content is directly relevant to students' studies; topics are more familiar and often studied in other courses from their discipline, which makes students feel more motivated and engaged in the learning process. Therefore, it is recommended that ESP courses be offered to university students not only in their first but in their subsequent years of study as well. In addition to that, needs analysis has proven to be a key factor in the development and implementation of the courses and especially in the improvement of specific skills. Moreover, it is evident that continuous evaluation of ESP courses should be a practice and should be conducted by all stakeholders involved to ensure quality control. (Papadima-Sophocleous et al., 2013).

Donesch-Jezo (2014) discussed teaching medical vocabulary in ESP courses for students of the medical college as it is a vital part of English language teaching at the university level. The first part of the study provides a theoretical basis for the presentation of a variety of exercises aiming at the teaching of Medical English. The second part presents examples of activities designed for their students and performed in ESP classes conducted by them. These exercises effectively help the students in the acquisition and long-term memory storage of the scientific vocabulary related to their field of study. The author concluded several basic principles regarding teaching new words: 1) The words should be presented in a context that shows how they are used. 2) The words should be practiced and consolidated through a variety of exercises, such as blank-filling, multiple choice, categorization, providing synonyms, antonyms, crossword puzzles, collocations, word formation, and studying concordance lines. 3) Receptive tasks should be combined with creative ones. 4) The strategy of deducing the meaning of words from context is one of the indispensable strategies used in vocabulary learning. 5) Vocabulary exercises should offer new information grounded in the students' knowledge of mainstream subjects. These exercises should be interesting, useful, and enjoyable.

Chonjnacka (2017) attempted to optimize the Process of Teaching English for Medical Purposes with the Use of Mobile Applications She used the Memrise language application to improve the teaching of English for Medical

Purposes (EMP) through an innovative pedagogical methodology. She touched upon three important topics in the fields of Applied Linguistics; namely, ESP pedagogy, learner autonomy, and technology-assisted language learning. The results were that Memrise-based mobile applications can improve English for Medical Purposes teaching by enhancing learner autonomy, ESP pedagogy, and technology-assisted language learning.

III. METHODOLOGY

The sample of the study is all registered students from different medical departments; College of Medicine (MBBS), College of Dentistry (BDS), College of Pharmacy (B-Pharm), College of Nursing (BSN) as well as the bridge program of Nursing for registered nurses (RNBSN) who had an English for specific purposes course in the first year of their academic education.

The method was random with a total population of estimated sample size of 289 students based on a total population of approx. 1158 students, 5% margin of error, 95% confidence level and 50% response distribution. Yet the actual size of the sample was 180 participants from all colleges.

The actual sample that participated was 58.3% Arabs, 22.8% different Indian languages (Malayalam, Urdu, and Hindi), and 18.9% other languages. The colleges that participated in the study were 43.3% from MBBS, 35% from BSN, 12.8% from B-Pharm, 7.2% from BDS, and 1.7% from RNBSN. More than half the sample was from first-year students with a percentage of (58.9), and the rest were from the second year onwards. 70.6% were females, whereas the males were only 29.4% only.

IV. PROCEDURE AND INSTRUMENTS

A self-administered closed-ended questionnaire was sent online to all registered students from the first year to the final year. A cross-sectional study was conducted to evaluate the needs of the members who were willing to participate.

V. DATA ANALYSIS AND RESULTS

The participants' answers were analyzed to examine what are their preferences and their priorities in an ESP course. The first question was a general question trying to figure out if they were interested in the course in general or not. As it is obvious in the below chart many of the participants were very much interested with a percentage of 41.1 % and others were interested with a percentage of 32.2% which shows that almost ¾ of the sample were interested in such courses with a total percentage of 73.3%. The rest of the sample which constitutes around 25% of the sample were either not much interested or not interested at all in taking an English course that focuses on professional English in their major.

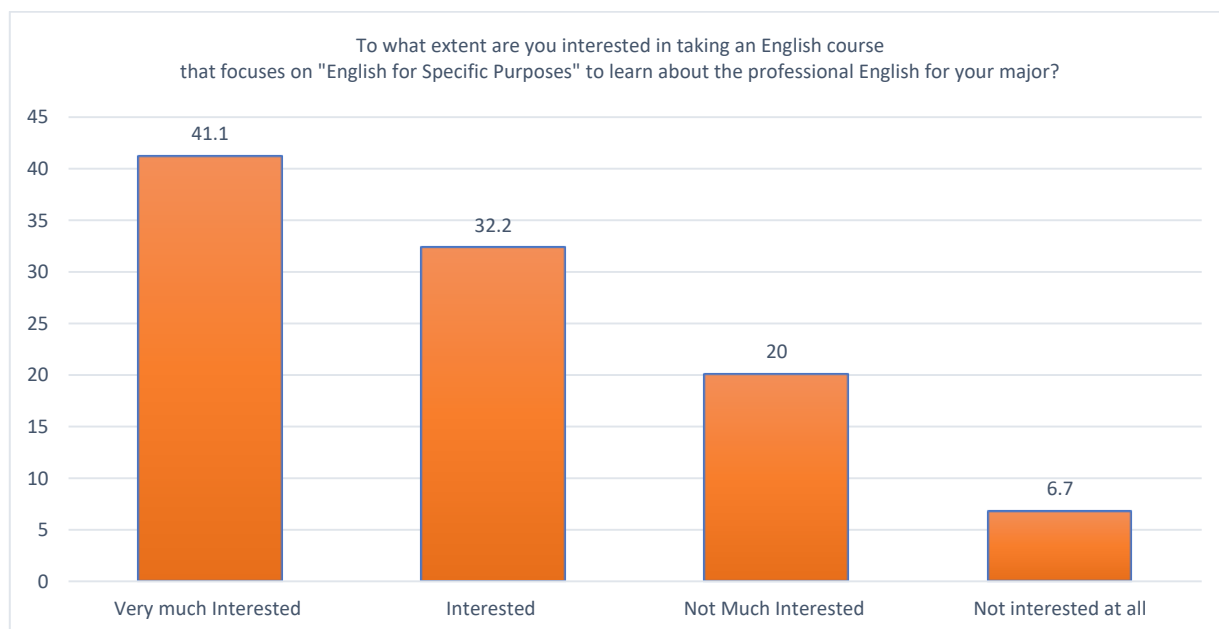


Figure 1. Interest in Taking ESP Course to Learn Professional English

In section two, the students were asked about the purpose of learning ESP from their own perspective and whether this purpose is to study other medical subjects, to interact with people in the healthcare field, to read medical articles, to perform some activities related to their study, to write medical reports, or to use in their future career. The following results are shown in the below figure.

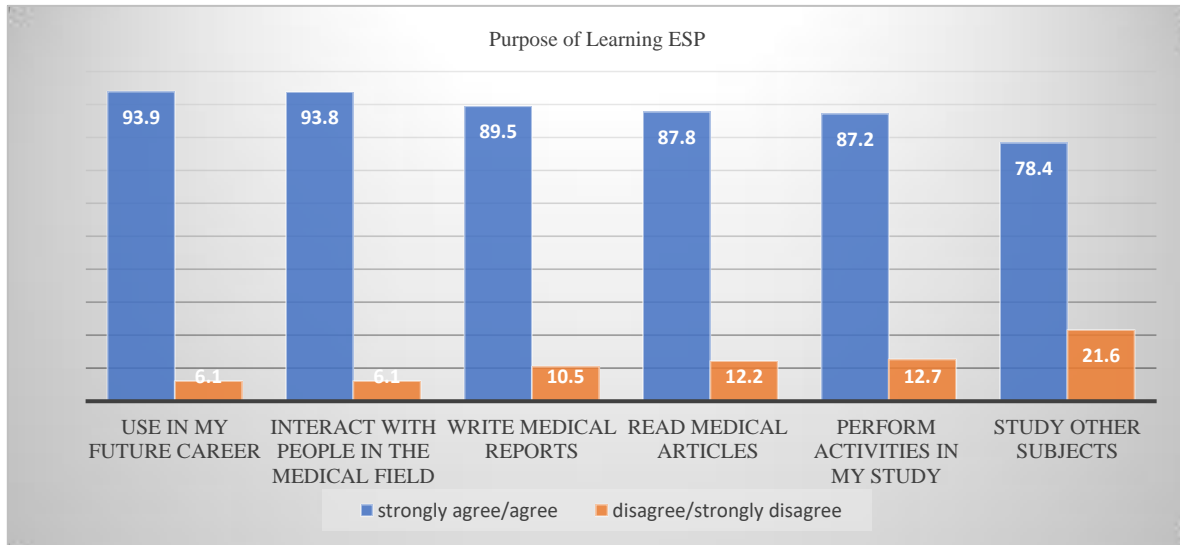


Figure 2. Purposes of Learning ESP

From the above figure, it is clear that students' objective from learning ESP is for all the above-mentioned purposes. But the objective that came first between agree and strongly agree was because they want to use it in their future career with a percentage of 93.9% and to interact with other people in the health care field with a percentage of 93.8%. These were the main two objectives for wanting to attend an ESP course. The third objective is writing medical reports with a percentage of 89.5% followed by reading medical articles with a percentage of 87.8%. Then lastly, the final two objectives, which were still high in percentage yet came the last were their desire to perform activities in their study with a percentage of 87.2%, and studying other subjects with a percentage of 78.4%.

In section three of the questionnaire, the students were asked about their language preferences. In other words, what they prefer to learn the most in the ESP courses and the results were as follows:

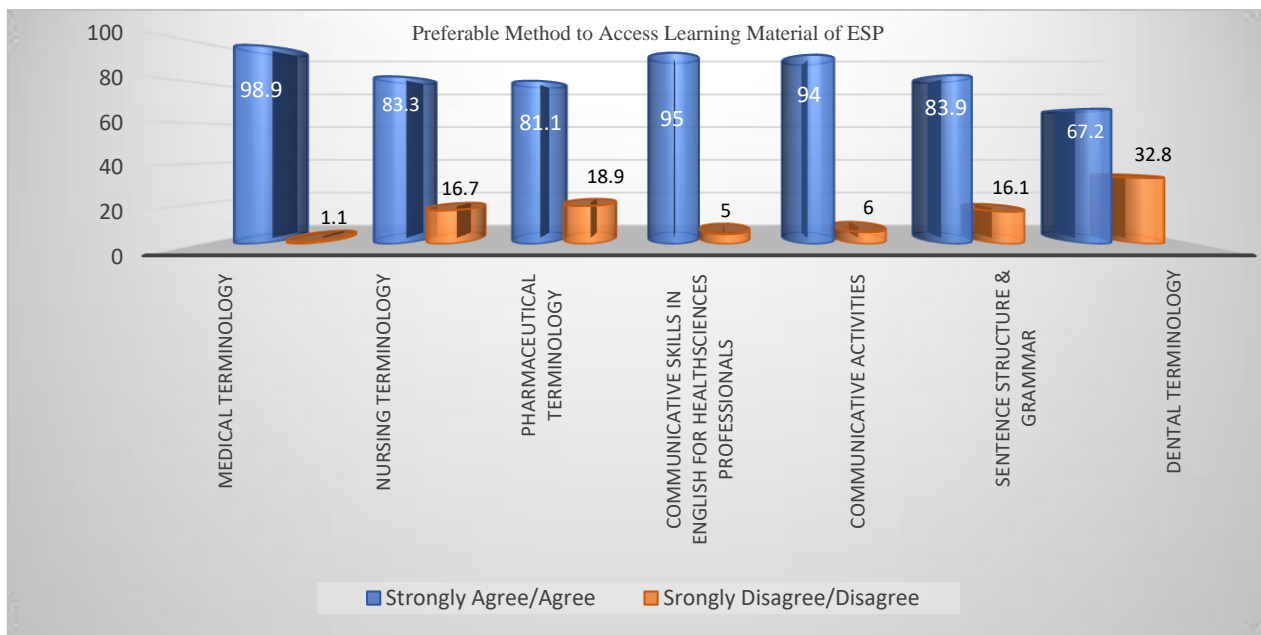


Figure 3. Language Preferences

From the above chart, it is evident that learning medical vocabulary has priority over all the other objectives. 98% of the sample consider learning medical vocabulary as their priority. The second objective behind attending an ESP course is for communicative skills in English for health sciences professionals with a percentage of 95% and general communicative activities with a percentage of 94%. Although grammar is not one of the preferred topics in English language courses, yet, medical students consider it very important as 83.9% of the sample put it as the fourth objective. Learning nursing terminology and pharmaceutical terminology followed with very close percentages of 83.3% and 81.1%. The Dental terminology came last with a percentage of 67.2%. Yet, this percentage may not be accurate due to the difference in the number of participants from each college. The dental terminology percentage is lower because the number of participants from this college was apparently lower than other colleges, not because it is the least preferred.

In section four, the participants were asked about the methods of assessment that they preferred or agreed to be used in their evaluation of the ESP courses. The results are represented in the pie chart below:

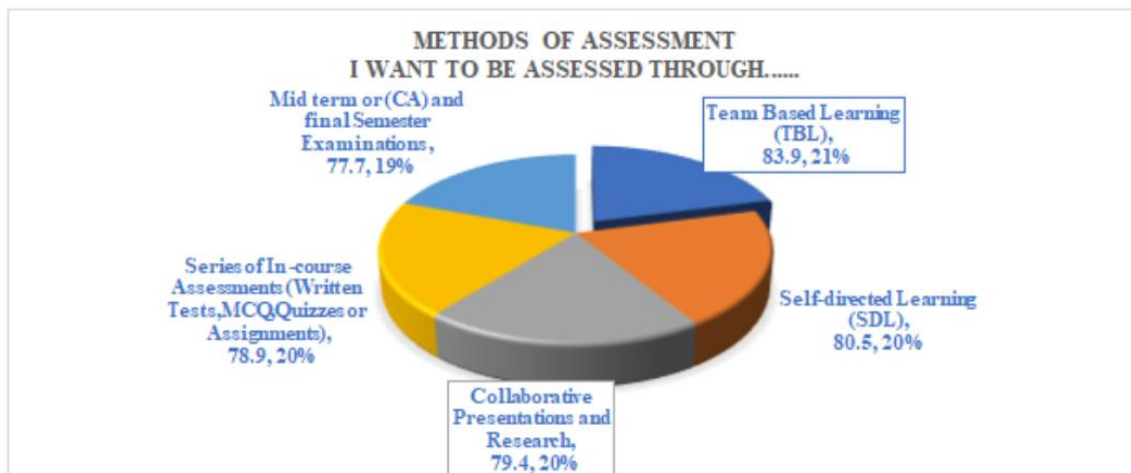


Figure 4. Methods of Assessment

It is obvious in the pie chart that it is almost divided equally between all types of assessment with an extremely slight escalation between the percentages. The highest is Team Based Learning (TBL) with a percentage of 83.9% followed by Self-directed Learning (SDL) with a percentage of 80.5%. Collaborative presentations and research followed with a slight decrease of 79.4%. Lastly was the conventional type of internal assessments like written tests quizzes, or assignments (78.9%), and with a slight decrease in percentage (77.7%) for the conventional types of examinations like mid-term, In-course assessment (ICA), and final exams.

Section five of the questionnaire discussed the four language skills and to what extent every skill is required by the participants in the ESP course. This section is divided into four parts and every part questions the objectives behind learning every skill. The results are shown in the bar chart below:

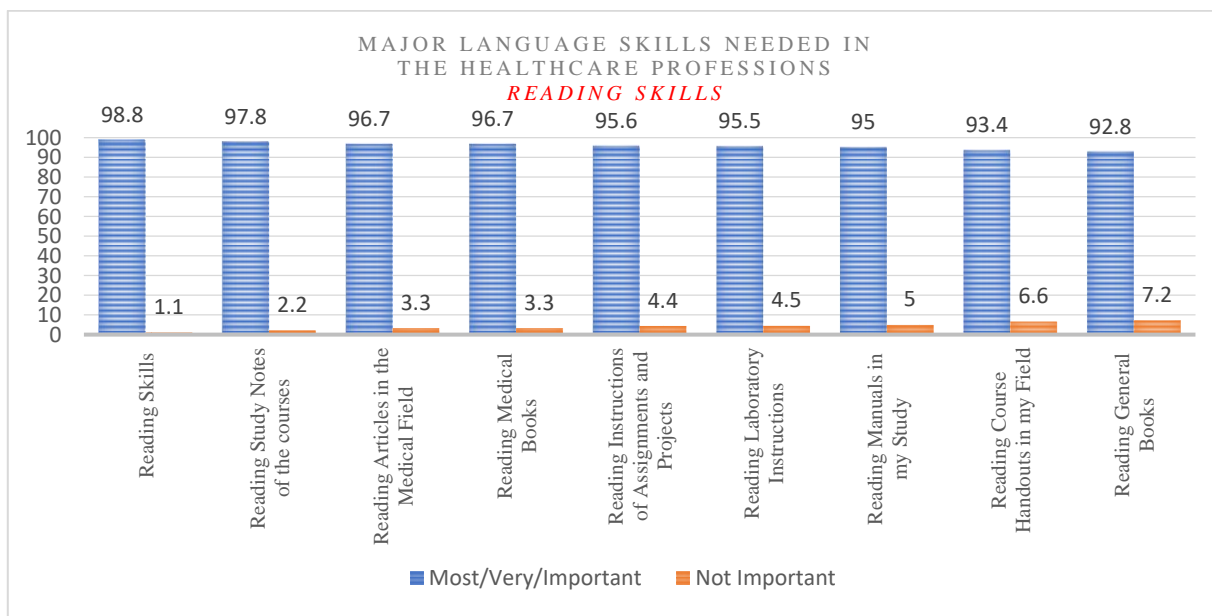


Figure 5. Major Language Skills Needed in the Healthcare Professions (Reading Skills)

The first group of questions in this section was an evaluation of the reading skills in general and their importance to the participants. Most of the participants perceived that reading is a very important skill to learn as the percentage of importance reached 98.8%. Then they were required to evaluate what are their priorities in reading or, in other words, the reasons why they need to learn reading skills. The main objective for the importance of reading skills in an ESP course was for reading study notes of the courses with a percentage of 97.8%. Then with a decrease of only one percent was reading articles in the medical field and reading medical books with the same percentage of 96.7%. Another decrease of only one percent was reading instructions of assignments and projects (95.6) followed by almost the same percentage with just a decline in a decimal or five for reading laboratory instructions (95.5%) and reading manuals (95%). Lastly, came reading course handouts (93.4%) and reading general books (92.8%).

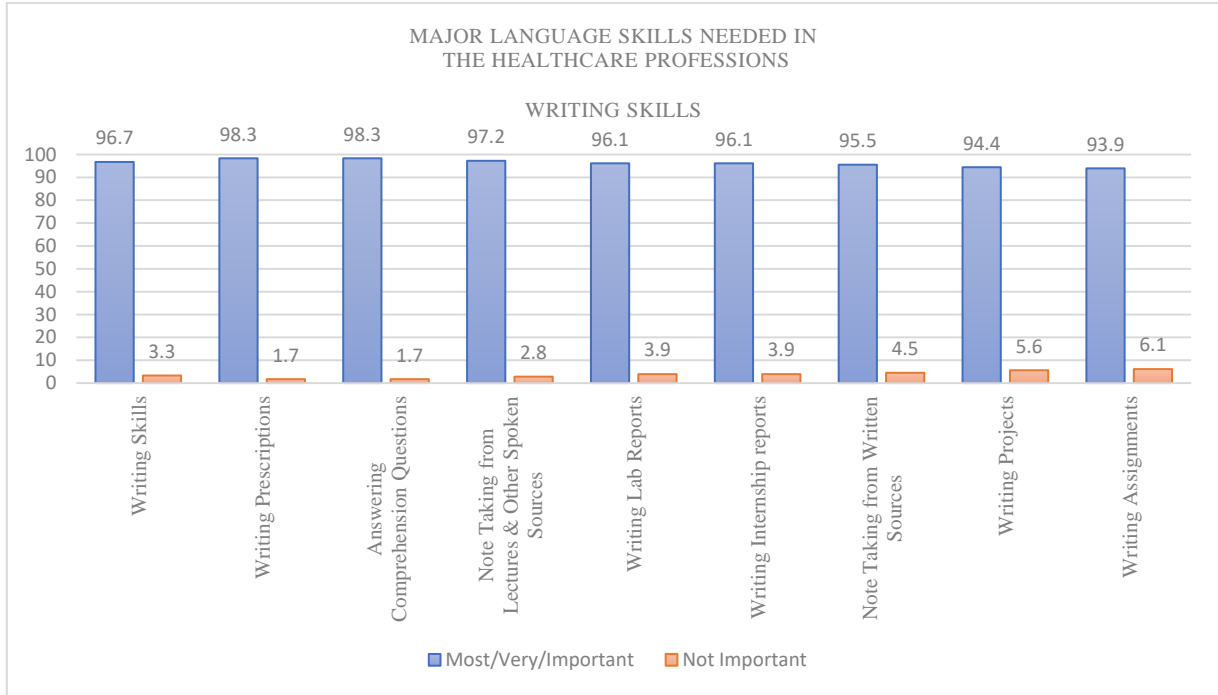


Figure 6. Major Language Skills Needed in the Healthcare Professions (Writing Skills)

As with the reading skills, when the participants evaluated the importance of writing skills in an ESP course, they perceived it as a very important skill with a percentage that reached 96.7%, almost two percent less than the reading which was 98.8%. From the perception of the participants, they needed the writing skills the most for writing prescriptions and answering comprehension questions with the same percentage of 98.3%. Taking notes from lectures and other spoken sources came next with only one percentage drop to reach a percentage of 97.2%. The percentage drops another one percentage to reach 96.1% importance to writing lab reports and writing internship reports. This was followed by the importance of note-taking from written sources with a percentage of 95.5%. Finally, writing projects and writing assignments came last in importance with percentages of 94.4% and 93.9%.

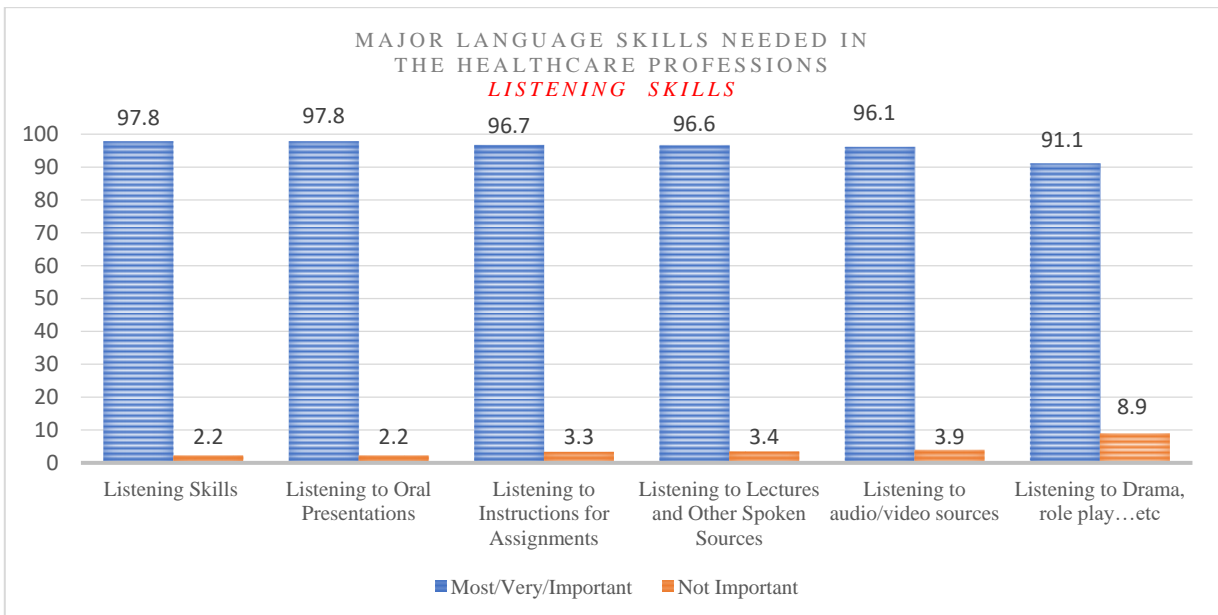


Figure 7. Major Language Skills Needed in the Healthcare Professions (Listening Skills)

From the above chart, the importance of the listening skills fell between the reading and the writing skills with a percentage of 97.8%. The participants gave the most importance to listening to oral presentations (97.8%) followed by listening to instructions for assignments (96.7%), listening to lectures (96.6%) then with less importance listening to audio/video sources. Finally, with the lowest percentage of 91.1% was listening to drama and role play.

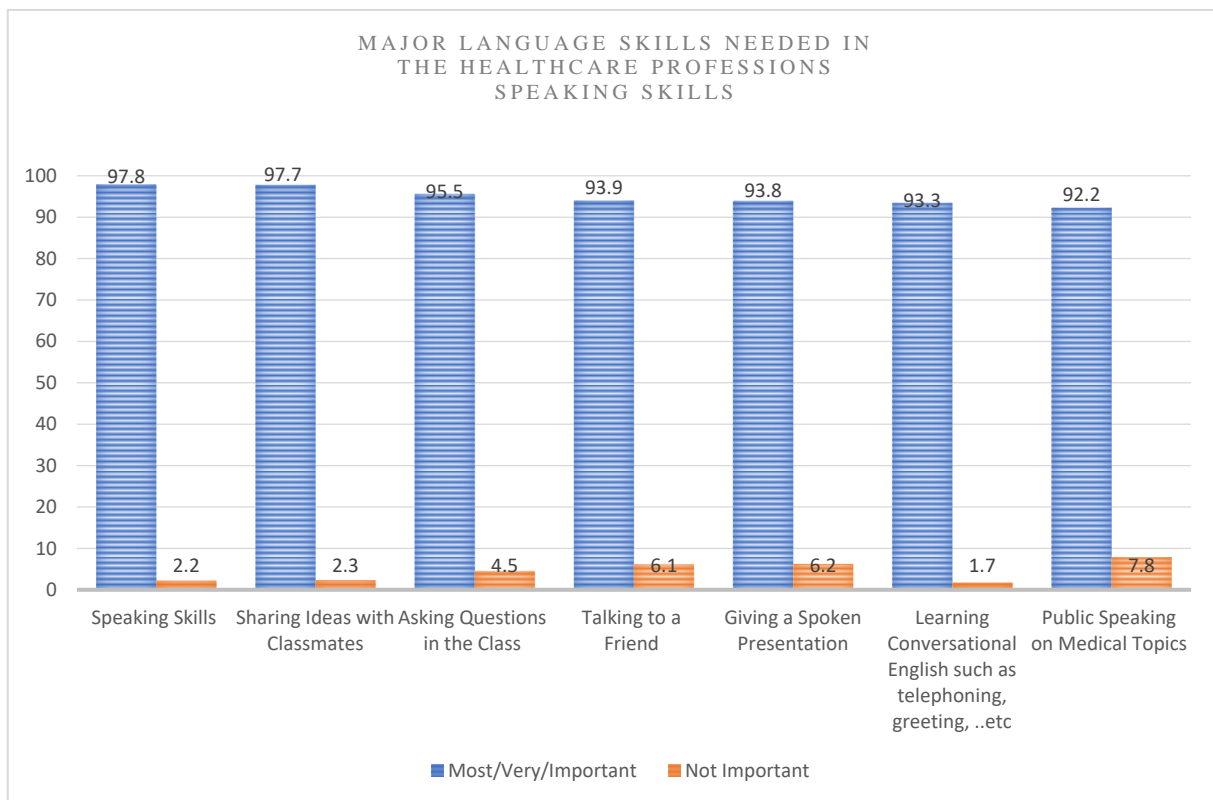


Figure 8. Major Language Skills Needed in the Healthcare Professions (Speaking Skills)

To the participants, speaking skills are of the same importance as listening skills as both are the same percentage of 97.8 %. The highest percentage of importance of speaking (97.7%) was for sharing ideas with classmates. The second in importance was asking questions in class with a percentage of 95.5%. Then the percentage of importance dropped with very close percentages between talking to a friend (93.9%), giving a spoken presentation (93.8%), and learning conversational English such as telephoning, greeting... etc. (93.3%).

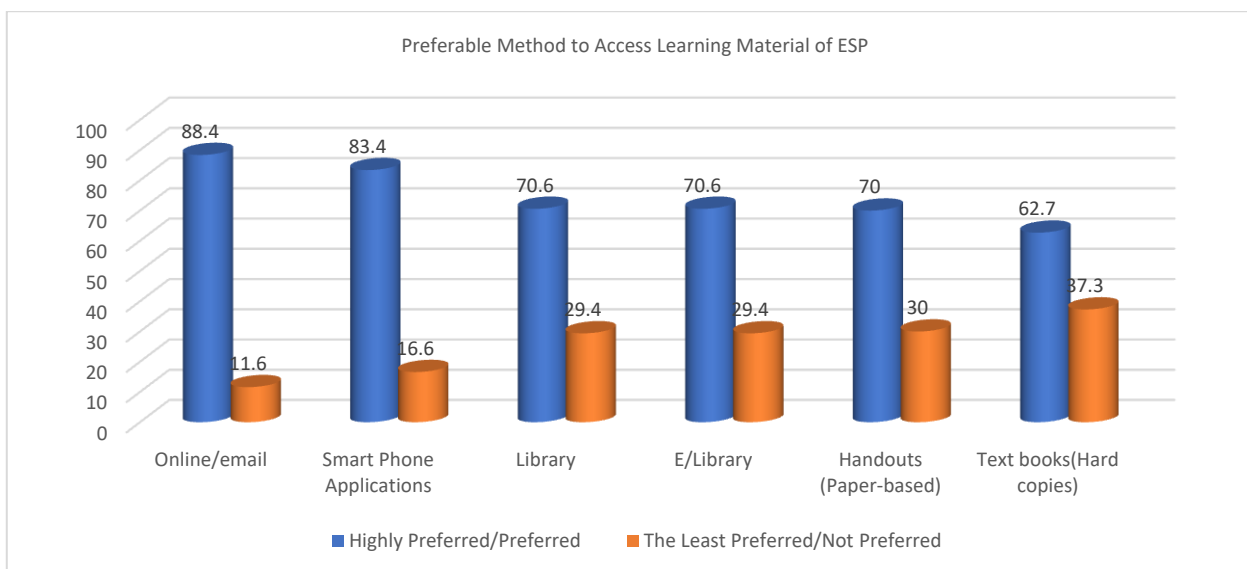


Figure 9. Preferable Method to Access Learning Material of ESP

In the sixth section, the participants were asked about the preferred method to access their learning material in the ESP courses. The highly preferred methods were the online or email methods with a percentage of 88.4% between highly preferred and preferred. The second highly preferred or preferred method was accessing the learning material through smartphone applications with a percentage of 83.4%. Using the library or the e/library to access the learning material was preferred with the same percentage of 70.6%. Finally, there was a great decline in preferability for conventional textbooks or hard copies to reach 62.7%.

In the seventh section of the questionnaire, the students were asked ten variable questions related to ESP courses in which they had to strongly agree, agree, or disagree with a certain statement. The ten questions are divided in Figures 10 and 11.

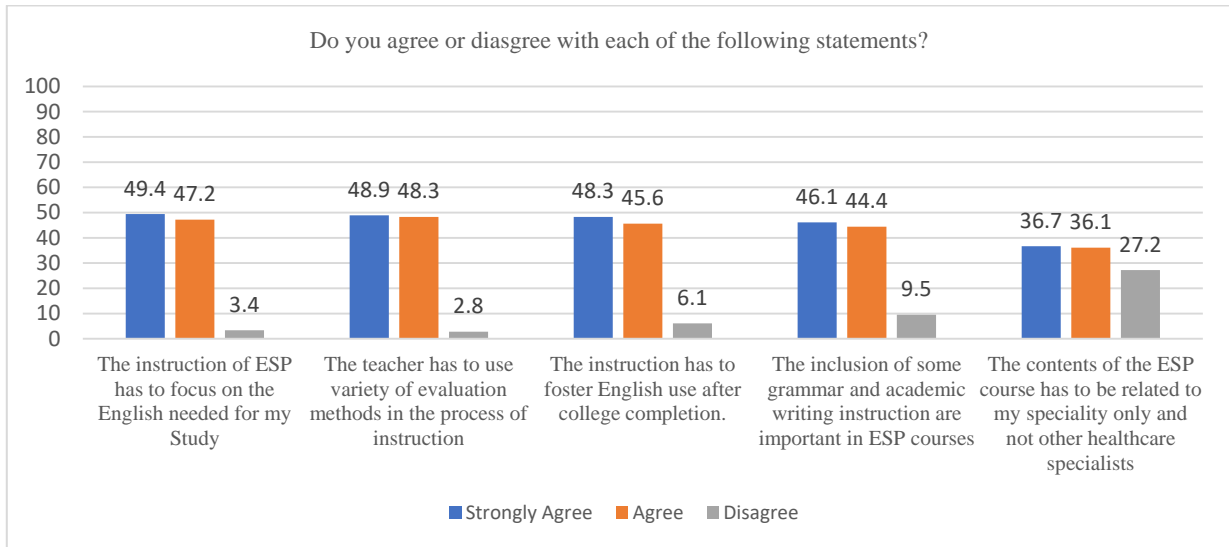


Figure 10. Do you Agree or Disagree With Certain Statements? (Part 1)

The first statement that the participants had to answer was to know their level of agreement with the fact that the instruction of ESP has to focus on the English needed for their study. Most of the students agreed with this statement with a general percentage of agreement of 96.6%. 49% strongly agreed and 47.2 % agreed with this statement. The second statement was whether they agree or disagree that the teacher of ESP has to use a variety of evaluation methods in the process of instruction. There was a total percentage of agreement that reached 97.2%, with 48.9% who strongly agree and 48.3% who agree. The third statement was whether the participants agreed or disagreed that the instruction in an ESP course has to foster English use after finishing college. 48.3% strongly agreed to this statement whereas 45.6% just agreed, with a total agreement level of 93.9%. The fourth statement asked about the level of agreement regarding the contents of the ESP course, whether they have to be related to the participant’s specialty only or whether they should include other healthcare specialties. In this question, the level of agreement decreased tremendously to a total of 72.8 %, which is 36.7% who strongly agreed and 36.1% who agreed that they should not be involved in other specialties. On the other hand, 27% of the participants wanted to be involved in other medical specialties and disagreed with focusing only on their specialties. In the fifth statement, which asked whether the participants agreed to the inclusion of some grammar and academic writing in the ESP courses, the level of agreement escalated again to 90.5% of the total agreement divided into 46.1% who strongly agreed that this inclusion is important and 44.4% who just agreed to its importance.

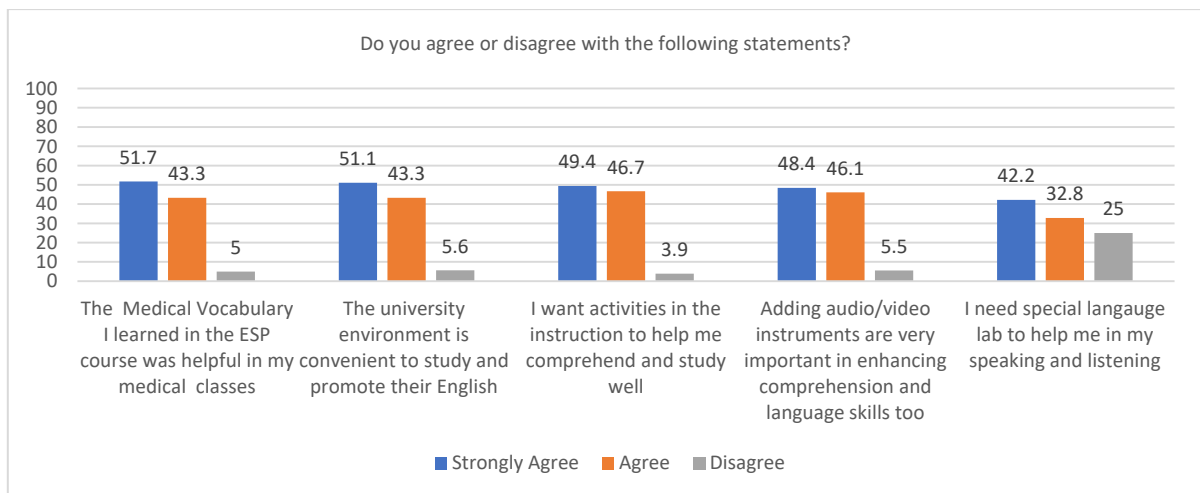


Figure 11. Do You Agree or Disagree With Certain Statements? (Part 2)

The second group of statements is illustrated in the above graph. The first statement asked whether the participants agreed or disagreed that they wanted activities in the instruction to help them comprehend and study well. Most of the participants agreed with a total percentage of 96.1% - 49.4% strongly agreed and 46.7% agreed to that statement. The

second statement asked their opinion on whether adding audio/video instruments is considered very important in enhancing comprehension and language skills. A total of 94.5% agreed with this statement with a percentage of 48.4% who strongly agree and 46.1% who just agree. When the participants were asked whether they needed a special language lab to help with speaking and listening, the level of agreement dropped as only 42.2% totally agreed and 32.8% agreed with a total of 75% of the participants. The percentage of agreement escalated again when the participants were asked whether the medical vocabulary they learned in the ESP course was helpful in their medical classes, as 51.7% strongly agreed to this statement and 43.3% agreed to it with a total percentage of 95%. Similarly, a percentage of 94.4% agreed that the university environment is convenient for studying and promoting their English, with a percentage of 51.1% strong agreement and 43.3% agreement.

VI. DISCUSSION

The purpose of this study is the development of the curriculum of ESP courses in an academic medical institution in the UAE. As previously mentioned, the development of a curriculum is an ongoing procedure in any academic institution. Therefore, to be able to evaluate the current curriculum of ESP courses and to add or remove it, a needs analysis has to be conducted periodically to achieve the best results from an ESP course. This is because “in ESP areas students need to learn how to enhance the accessibility of their future professional communication” (Ishihara et al., 2021, p. 641).

The questionnaire that was shared with the students from different healthcare departments attempted to gather and question all aspects of communicative English skills to examine their preferability to the students and to what extent they feel that certain content is beneficial or not. It was expected that a great number of participants would give great value to ESP courses and the expectation was correct since more than half of the sample perceived the importance of ESP courses in their professional studies, their careers, to study other subjects, interact and read or write material related to medicine.

The greatest percentage of the sample perceived ESP courses as a source to learn the medical, pharmaceutical, or dental terminology, as it is essential in their study and career. Yet, the preference for dental terminology was mainly restricted to the students of the College of Dentistry. Therefore, one of the reasons for the importance of ESP courses was mainly to learn medical or pharmaceutical terminology for the majority of the participants from all colleges. Furthermore, for the participants, communicative skills and activities also were preferred more than grammatical content which is quite similar to General English courses as most of the students in the General English courses prefer the conversation, listening, and speaking content over the grammatical one. This was mentioned in several papers. For example, Almekhlafi et al. (2011) mentioned that “the role of grammar instruction in an ESL/EFL context has been for decades a major issue for students and teachers alike. Researchers have debated whether grammar should be taught in the classroom and students, for their part, have generally looked upon grammar instruction as a necessary evil at best, and an avoidable burden at worst” (p. 69). Therefore, less preference for grammar was also expected in the survey and although some students perceive grammar and academic writing as important and preferable, yet some students do not perceive that importance. Similarly, almost $\frac{3}{4}$ of the sample want the ESP course to focus only on their specialty. For example, pharmacy students do not want to be involved in much of medical terminology or dental terminology and vice versa. Furthermore, a great percentage considered the medical vocabulary that they learn in ESP courses as useful to them in their medical classes.

Regarding language skills in general, most of the students perceived them as all important. All four language skills surpassed 95% regarding their importance in an ESP course. Yet, the reasons for the requirement or the need for a certain skill in an ESP course varied among participants, although the requirements are also high in percentages. The overall conclusion about the four skills' importance and requirements shows that the main objective of an ESP course is language fluency to be able to communicate and achieve any requirement in their career. These requirements may include reading, writing, listening, or speaking.

Assessment is a very essential and fundamental part of any academic course since it is a sort of feedback for the course and it is an indicator of the retention and comprehension level of the new information that the students received in the course. It was expected that the majority of the students may prefer teamwork and that was reflected also in the survey in which the preference is higher when teamwork is involved in some cases as TBL. Whereas, the conventional methods of assessments are less preferred as written tests and assignments.

As for the learning material, the attitude of the students is similar to their attitude regarding the methods of assessments. In other words, the students consider conventional methods as less preferable. They prefer online methods and smartphone applications to hard copies and textbooks over paper-based handouts. Moreover, a huge number of the sample encouraged the instruction through class activities and audio/video. Yet, a quarter of the sample do not perceive the importance of an English language laboratory. The reason for that was not expected as mostly in General English courses students prefer using Language Labs that are equipped with the most sophisticated audio/video instruments as well as other facilities. Moreover, most of the sample agreed that being in a mostly English-speaking community at the university is convenient to enhance their English language and communicative skills in English.

Furthermore, it was concluded from the results that healthcare students are the least interested in using their language in comprehending other milieus than their profession. For example, reading general books or listening to drama or role-

play was the least of their interests. In other words, their main aim of learning language skills is not for such general interests. Even in speaking, the general use of English was the least in percentage. The majority want to use their speaking skills in their professional environment.

VII. CONCLUSION

A needs analysis is an important tool for any organization or individuals looking to improve their English for Specific Purposes skills. In other words, the purpose is to teach students how to use English as a means of communication in a specific occupational or academic situation and to improve students' written and oral communicative skills in English that are suitable for special fields, like sciences, economics, politics, business...etc., thus, enabling students to become competent users of English as a means of communicating in certain domains. By clearly defining the purpose of the needs analysis, identifying the participants, collecting data, analyzing the data, and developing conclusions and recommendations, a needs analysis can be an invaluable tool for setting goals, developing a curriculum or training program, and evaluating results.

The best way to teach English for specific purposes is by focusing on communicative competence and content and language-integrated learning. This will meet the needs of all learners and help them achieve their objectives. Technology can be used to support this approach, but some challenges need to be considered when using technology in the classroom.

It is essential to take technology and Artificial Intelligence (AI) into consideration when dealing with learners in general whether it be school students, students at the tertiary level, or post-graduates. This is because technology has become the easiest and most convenient method to acquire any type of information. As previously mentioned, the needs analysis shows that a great percentage prefer assessments that use technology more than conventional assessments. To a great extent, this choice is a good choice as nowadays the majority of students at all levels tend to copy-paste from the internet or use Artificial intelligence to finish their tasks. Therefore, it is better to be realistic and not insist on the conventional methods because sometimes the younger generation are mentors of the older ones.

Technology and AI were pushed ahead several miles during the Covid-19 crisis. A study during the crisis about The Effectiveness of Internet and Mobile Applications in English Language Learning revealed that Internet applications have a positive impact on learning English as a foreign language and that students' attitudes towards using Internet applications for learning English scored very high in certain areas (Mohamed, 2021).

Finally, it is concluded from that research that the participants are mainly seeking fluency as healthcare professionals in the field. Therefore, ESP classes should focus on using more technological methods whether it be in the assessment methods or the learning material. The focus on grammatical content should be decreased, but not eliminated. More entertainment should be integrated into classes by using more audio, videos or any other activities that are not conventional.

Therefore, technology and artificial intelligence can be employed in ESP classes in a positive regard. That is, not only to copy and paste assessments but to make material more accessible or to make assessments less stressful for the learners. It can also be used for seeking resources and smartphone applications can also be used to practice in a more engaging manner. Finally, a periodic needs analysis is always recommended for the development of any ESP course.

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